

Environmental Assessment and Finding of No Significant Impact – Convergent Puerto Rico Photovoltaic and Battery Energy Storage System Portfolio

Department of Energy Loan Programs Office –
Energy Infrastructure Reinvestment Program

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
Act 17	Puerto Rico Energy Public Policy Act of 2019
BA	biological assessment
BESS	battery energy storage system
BMPs	best management practices
Caguas Project	Caguas Battery Energy Storage System
CES Plan	Erosion and Sedimentation Control Plan
CFR	Code of Federal Regulations
CO ₂	carbon dioxide
Coamo Project	Coamo Photovoltaic Battery Energy Storage System
Convergent or Applicant	Convergent Ashford Development, LLC
CUB	Land Use Consultation [Spanish acronym]
CZIB	Coastal Zone Inland Boundary
dB	decibel
DEA	determination of environmental compliance
DNER	Department of Natural and Environmental Resources
DOE	Department of Energy
DTOP	Department of Transportation and Public Works
EA	environmental assessment
EIR	energy infrastructure reinvestment
EJ	environmental justice
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 2005
ESA	environmental site assessment
ESSA	Energy Storage Services Agreement
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
gen-tie	generation tie line
GHG	greenhouse gas
GSU	generator step up
IPaC	Information for Planning and Consultation
IREC	Interstate Renewable Energy Council

Acronym	Definition
Joint Permit Regulation 2023	Joint Permit Regulation for Evaluating and Expediting Permits Related to Land Development and Use and the Operation of Businesses
kV	kilovolt
kVA	kilovolt-amperes
LPO	Loan Programs Office
MOT	maintenance of traffic
MVA	megavolt-ampere
MVAC	medium-voltage alternating-current
MW	megawatt
MWh	megawatt hour
NEPA	National Environmental Policy Act
NRCS	Natural Resource Conservation Service
O&M	operation and maintenance
OGPe	Permits Management Office
OSHA	Occupational Safety and Health Act
PCBs	polychlorinated biphenyls
PCS	Power Conversion System
Peñuelas Project	Peñuelas Battery Energy Storage System
Ponce Project	Ponce Battery Energy Storage System
PPOA	Power Purchase and Operations Agreement
PR	Puerto Rico Highway
PR100	Puerto Rico Grid Resilience and Transition to 100% Renewable Energy
PRASA	Puerto Rico Aqueduct and Sewer Authority
PRCZMP	Puerto Rico Coastal Zone Management Program
PREPA	Puerto Rico Electric Power Authority
PRPB	Puerto Rico Planning Board
PV	photovoltaic
REA	recommendation for environmental assessment
RECs	recognized environmental conditions
ROW	right-of-way
SHPO	State Historic Preservation Office
SPCC	spill prevention, control, and countermeasures

Acronym	Definition
SREP-A	Specially Protected Rustic Land-Agricultural
SREP-P	Specially Protected Rustic Land-Landscape
SVOC	semi-volatile organic compound
SWPPP	Stormwater Pollution Prevention Plan
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
V	volt
VOCs	volatile organic compounds

1.0 PURPOSE AND NEED

1.1 Introduction

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects and authorized 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 (EIR) in the United States and U.S. territories.

Convergent Ashford Development, LLC (Convergent or Applicant), a subsidiary of Convergent Energy Solutions New York, LLC, has applied for a loan guarantee pursuant to the DOE's Title XVII EIR program, as authorized by the EPAct, as amended. The Title XVII EIR program is administered by LPO, which originates, underwrites, and services loans and loan guarantees to eligible applicants for projects that accelerate the commercial deployment of innovative energy technology. LPO has reviewed Convergent's application and determined that it is eligible for a potential loan guarantee (10 Code of Federal Regulations [CFR] Parts 609.3 and 609.5).

The decision as to whether to provide a loan guarantee (i.e., federal financial assistance) constitutes a major federal action that requires DOE to conduct an environmental review under the National Environmental Policy Act (NEPA). LPO has prepared this environmental assessment (EA) in accordance with NEPA (42 United States Code [U.S.C.] 4321 et seq.), the Council on Environmental Quality NEPA implementing regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021). LPO is using the NEPA process to inform its decision as to whether to issue a loan guarantee to the Applicant to support the project.

1.2 Purpose and Need for Agency Action

The purpose and need for DOE's proposed action, the issuance of a federal loan guarantee, are tied to implementing DOE's authority under Title XVII of the EPAct, which is to finance projects and facilities in the U.S. that retool, repower, repurpose, or replace energy infrastructure that has ceased operation or enable the operation of energy infrastructure to avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases (GHGs) (42 U.S.C. 16517[a][2]).

LPO has determined that the project, which consists of the Coamo Photovoltaic Battery Energy Storage System (Coamo Project), the Peñuelas Battery Energy Storage System (Peñuelas Project), the Ponce Battery Energy Storage System (Ponce Project), and the Caguas Battery Energy Storage System (Caguas Project), as proposed by the Applicant, is eligible pursuant to Section 1706 of the EPAct and that it complies with DOE's mandate, as defined in the act. DOE is using the NEPA process to assist in determining whether to issue a loan guarantee to the Applicant to support the project.

The Applicant is proposing four individual energy projects—Coamo, Peñuelas, Ponce, and Caguas—to supply the Puerto Rico Electric Power Authority (PREPA) network, thereby enabling PREPA to avoid and reduce GHG emissions at its power generating plants.

The Coamo Project involves a 100-megawatt (MW) photovoltaic (PV) energy generation facility, which would be paired with an approximately 55 MW battery energy storage system (BESS), consisting of an operation and maintenance (O&M) structure, a substation, containers with batteries for storing electrical energy, and inverters and transformers on concrete foundations.

The Peñuelas Project involves a 100 MW stand-alone BESS facility, consisting of an O&M structure, a substation, containers with batteries for storing electrical energy, and inverters and transformers on concrete foundations.

The Ponce Project and the Caguas Project each involve a stand-alone 25 MW BESS facility, consisting of a substation, containers with batteries for storing electrical energy, and inverters and transformers on concrete foundations. The Caguas Project also includes an O&M building.

1.3 Background

The EAct established a federal loan guarantee program for eligible energy projects that employ innovative technologies. DOE believes that commercial use of these technologies will help sustain and promote economic growth, produce a more stable and secure energy supply and economy for the U.S., and improve the environment. DOE published a Final Rule that established the policies, procedures, and requirements for the loan guarantee program (10 CFR Part 609).

The Puerto Rico Energy Public Policy Act of 2019 (Act 17) set a goal of meeting 100 percent of the island's electricity needs with renewable energy by 2050. On April 1, 2024, DOE and the Federal Emergency Management Agency (FEMA) released the Puerto Rico Grid Resilience and Transition to 100% Renewable Energy Study (PR100),¹ which concluded that this goal can be achieved through the deployment of utility-scale renewable power generation, distributed energy sources, and grid stabilization measures. In order to implement Act 17, PREPA issued a procurement plan to provide renewable electricity to the grid. This project represents 10 percent of the renewable energy generation and 45 percent of the storage capacity in Tranche 1 of PREPA's procurement plan. Together, the project represents about 22 percent of the Tranche 1 energy solicitation.

The EIR program is central to LPO's mission to serve as a "bridge to bankability" for clean energy projects, which are critical to decarbonizing the energy sector. With the EIR program, LPO can support projects that reinvest in energy infrastructure throughout the United States. This includes projects that upgrade energy infrastructure so it can operate more efficiently, both with higher output and lower emissions; replace retired energy infrastructure with clean energy infrastructure; and build new facilities for clean energy purposes that use legacy energy infrastructure.

1.4 Scope of Environmental Assessment

LPO is preparing this EA in accordance with NEPA to address potential environmental impacts from construction and operation of the four projects, consisting of one PV energy generation facility paired with a BESS and three stand-alone BESS facilities with an O&M structure,² a substation, containers with batteries for storing electrical energy, and inverters and transformers on concrete foundations, to supply the PREPA network at Coamo, Peñuelas, Ponce, and Caguas, Puerto Rico. If no significant impacts are identified during preparation of this EA, DOE will issue a Finding of No Significant Impact. If potentially significant impacts are identified, DOE will prepare an environmental impact statement.

The Puerto Rico Energy Bureau approved, through resolution, an order for the construction of 18 projects that will store and generate PV energy in Puerto Rico. The four projects discussed above were part of this approval, with the Coamo Project contracted under a Power Purchase and Operations Agreement (PPOA) with PREPA; the three stand-alone BESS projects (Peñuelas, Ponce, and Caguas) were contracted under Energy Storage Services Agreements (ESSAs) with PREPA. The four projects need to comply with Puerto Rico Environmental Policy Act, as amended, to proceed with construction and operation.

¹ Available: <https://pr100.gov/>.

² The Ponce Project does not include an O&M building.

In determining the scope of the environmental review and resources that may be subject to potentially significant impacts, LPO reviewed regulatory agency consultations (see Appendix A) and the permits, authorizations, and approvals associated with each solar project (see Appendix B). This EA describes the Coamo, Peñuelas, Ponce, and Caguas projects and their potential impacts on multiple resource areas due to construction and operation. The resource areas assessed in this EA consist of:

- Water Resources (wetlands, groundwater, surface water)
- Biological Resources (soils, vegetation, wildlife)
- Cultural Resources
- Noise
- Land Use
- Aesthetic and Visual Resources
- Health and Safety
- Transportation
- Socioeconomics and Environmental Justice
- Waste Management
- Land Use
- Soils and Prime Farmlands

These resource areas were identified as potentially being affected by the project; therefore, each was assessed to determine the nature, extent, and significance of those impacts (see Section 3). The assessment combined desktop research and analysis of existing available information with select field studies, including site assessments regarding the presence/absence of wetlands, flora and fauna, water bodies, or cultural resources.

Resources not included in this EA pertain to recreation, geology, and Native American interests. The parcels to be developed are all currently agricultural land, industrial sites, or vacant land, with no known recreational uses. The project would have no impact on underlying geology or groundwater. Emissions associated with construction of the Convergent projects are expected to be de minimis, as are emissions associated with operation, which would not result in a significant impact on air quality. Only surface impacts would occur from grading the land and installing the solar panels and other project elements. Because of the absence of federally recognized Native American tribes in Puerto Rico, DOE has not assessed impacts on Native American interests or conducted tribal communications for the Convergent project.

2.0 DESCRIPTION OF THE PROPOSED ACTION

The DOE LPO Proposed Action is to issue a loan guarantee to Convergent to develop a combined PV and BESS project in Coamo and three stand-alone BESS sites in Caguas, Ponce, and Peñuelas, Puerto Rico.

The Coamo Project: The combined PV and BESS project will develop, build, and operate an energy generation system. This will involve installing approximately 200,000 PV panels, which will be organized on several adjacent properties in the municipality of Coamo. The 55MWh BESS at the Coamo Project will involve developing, building, and operating a BESS facility with a substation, containers with batteries for storing electrical energy, inverters and transformers on concrete foundations, and an O&M building. It will be constructed and operated on the PV site in conformance with the terms and conditions laid out in the PPOA.

The Peñuelas, Ponce, and Caguas Projects: The three stand-alone BESS projects will involve developing, building, and operating a BESS facility with a substation, containers with batteries for storing electrical energy, and inverters and transformers on concrete foundations. Each BESS will be constructed and operated in conformance with the terms and conditions laid out in the ESSAs. Specifically, the batteries will give the grid operator (LUMA Energy), on behalf of PREPA, the ability to charge and discharge up to 100 megawatt hours (MWh) at the Ponce and Caguas facilities and 400 MWh at the Peñuelas facility.

The components included in all four projects, are:

- Open-type Substation – An open-type substation is designed with no physical enclosure around its components, unlike substations that are housed within buildings/enclosures. It consists of a substation control room and O&M building. The function of this component is to transform and regulate the energy produced by a facility so that it enters the energy transmission network at a uniform voltage. The substation will be protected by a fence around its perimeter. Pole-mounted LED lighting will be installed at a height of 40 feet and produce a level of illumination equal to 2 foot-candles, as required by the National Electrical Safety Code. See Section 2.1 for the specifications of each project's substation.
- Installing an electrical generator with dual-wall, sub-base fuel tanks and a capacity of approximately 75 kilovolt-amperes (kVA)
- Security Systems – This includes gates and a closed-circuit television system on the periphery of each property. In addition, the BESS yard and substation, as well as the PV site for the Coamo Project, will be secured by a 6-foot fence with 1 foot of barbed wire.

Finally, 88-foot steel poles will be installed for transmission lines and power lines, and four parking spaces and one accessible parking space will be provided (five parking spaces in total).

The table below describes the project components and the footprint for each project.

Table 1: Project Components

Project Structure	Coamo PV/BESS	Peñuelas BESS	Ponce BESS	Caguas BESS
PV and/or BESS	BESS: 1.87 ac PV: 319.90 ac	BESS: 5.34 ac	BESS: 0.93 ac	BESS: 1.95 ac
Substation	150 ft x 200 ft 0.67 ac	(150 ft x 200 ft) 0.67 ac	(130 ft x 80 ft) 0.24 ac	(130 ft x 80 ft) 0.24 ac
O&M structure	20 ft x 20 ft 0.01 ac	N/A	N/A	N/A
Transmission gen-tie/steel poles (approximate)	2.2 miles/77 poles 17.51 ac area	800 ft/six poles	925 ft/nine poles	325 ft/three poles
Total fenced area	355.45 ac	6.10 ac	2.14 ac	2.66 ac
Project capacity	100 MW PV generation, 55 MWh BESS	400 MWh	100 MWh	100 MWh
Interconnection voltage	115 kV	115 kV	38 kV	38 kV

ac = acre; BESS = battery energy storage system; ft = feet; gen-tie = generation tie line; kV = kilovolt; MW = megawatt; MWh = megawatt hour; O&M = operation and maintenance; PV = photovoltaic

2.1 Construction

2.1.1 Coamo Project

Convergent proposes constructing the Coamo Project in the municipalities of Coamo and Santa Isabel, Puerto Rico (Figure 1). The properties where the PV facility will be installed are in the Los Llanos and San Ildefonso Wards of the municipality of Coamo; the properties will house most of the components necessary for operation of the facility. Development of a switchyard has been proposed for the Jauca 2 neighborhood of the municipality of Santa Isabel, which will allow interconnection to the existing transmission network operated by PREPA through LUMA Energy. The switchyard will be developed and constructed by Convergent, with ownership transferred to PREPA upon completion.

The properties for solar generation and the BESS will cover approximately 622 acres (641 cuerdas), with the project footprint covering 355.45 acres (366.42 cuerdas). Table 1, above, describes the area required for each component of this project. It is estimated that approximately 4,800 cubic yards of fill will be brought in by truck from the ports in Ponce and San Juan.

The components of the solar farm property in the Los Llanos and San Ildefonso Wards of Coamo are:

- Solar Farm – The solar farm’s 100 MW of electrical power will be generated from approximately 200,000 solar panels that will be installed in fixed frames and anchored directly to the ground without concrete foundations. The panels, which will face south, will have a fixed inclination of 8 percent and be designed to resist hurricane winds of 160 to 170 miles per hour.³ Complementary systems on the solar farm will include power inverters, which will transform the energy generated by the PV panels from direct current to alternating current. In addition, collectors or lines to transmit the energy produced by the solar panels will be installed in trenches.
- Large-scale Energy Storage System – This consists of a BESS to store approximately 55 MW of electricity. The purpose is to ensure a consistent and sustained energy supply that will meet the minimum technical requirements associated with the PPOA.

³ A Category 5 (intense) hurricane has sustained winds of 157 miles per hour on the Saffir-Simpson scale.

- Substation – This consists of a 115-kilovolt (kV) open-type substation (100 feet by 200 feet), including a substation control room and an O&M structure.
- Transmission Line – This consists of an approximately 2.2-mile-long, 115 kV overhead line that will run along Puerto Rico Highway (PR) 545. It will be constructed within the existing Puerto Rico Department of Transportation and Public Works (DTOP) right-of-way (ROW) in the Jauca 2 neighborhood of the municipality of Santa Isabel, an area of approximately 1.75 acres (1.8 cuerdas). The line will reach the interconnection point (the substation listed above) for the PREPA electrical network. Poles for the generation tie line (gen-tie) will be placed within the DTOP ROW (Appendix B). To date, DTOP has expressed no issues with respect to issuing easements for construction. Land for the small portion of the line that will not run parallel to PR-545 will be handled through easements with private landowners. At this time, negotiations with landowners are nearing completion, with two outstanding easements about to be finalized. One of the agreements is with the Puerto Rico Land Authority; the other is with a private landowner.
- Towers – Approximately 77 steel monopoles measuring 88 feet in height will be used, with each having an on-the-ground footprint of 15 square feet.
- Power Conversion System (PCS)
 - PV: The 28 PCS components will each consist of three inverters (one Ingeteam Ingecon Dual 1715TL-U-B660/3.240-megavolt-ampere [MVA] and one Ingeteam Ingecon 1715TL-U-B660/1.620 MVA) and one step-up transformer (5.22 MVA, 34.5 kV delta/660-volt [V] wye)
 - BESS: The 14 PCS components will each consist of 12 batteries (CATL EnerOne [1P]), two inverters (Ingeteam Sun Storage ISS-3930TL-HV-C690/3.227 MVA), and one step-up transformer (7.1 MVA, 34.5 kV grounded wye/690 V delta)
 - Connecting a 2-inch pipe to the Puerto Rico Aqueduct and Sewer Authority (PRASA) for potable water for use during construction of the project.⁴

The solar farm property will also require a 5.5-mile-long trench for direct-current cables and a 14.1-mile-long trench for medium-voltage alternating-current (MVAC) cables to PV panels, along with the cables from the PCS to the project substation (Figure 46). Approximately 6.7 miles of gravel access roads will also be constructed (Figure 45).

The interconnection point will be in the Descalabrado Ward of Santa Isabel, an area of approximately 1.75 acres (1.8 cuerdas). This area will house a switchyard and sectionalizer control room developed and constructed by Convergent; ownership will be transferred to PREPA upon completion. The substation will be approximately 300 feet by 300 feet; in addition, there will be two A-frame structures and a modular structure for controlling voltage drop, with a footprint measuring approximately 16 feet by 18 feet. This equipment will provide redundancy for the security system. The equipment itself will be anchored to concrete foundations; the rest of the surface of the interconnection area will be covered with gravel. A fence will be placed at the limits of the switchyard, with lighting at the entrance and strategic points to protect the facility. The interconnection will be made through the PREPA-owned 115 kV transmission line (operated by Genera PR) that runs from east to west within the limits of the municipality of Santa Isabel (Figure 15). According to a LUMA Energy interconnection study, upgrades will be required for Line 4800 and the Santa Isabel Transmission Center; this will be the responsibility of LUMA Energy (LUMA Energy 2022).

⁴ The pipe for each BESS project will be approximately 250 feet long and connect to an existing water line, pending any infrastructure recommendations from PRASA.

2.1.2 Peñuelas Project

The 100 MW Peñuelas Project (see Table 1 for a breakdown of the areas of disturbance) is proposed on one parcel (Cadastre Number 386-00-010 02-901) at PR-127 in the Tallaboa Poniente and Cedro Wards of the municipalities of Peñuelas and Guayanilla, Puerto Rico, respectively (Figure 17). This project consists of a BESS yard and substation (Figure 23). It is estimated that approximately 4,349 cubic yards of fill will be brought in (source to be confirmed during construction).

The Peñuelas Project will interconnect through a 115 kV connection to the Costa Sur SP Transmission Center, which is directly adjacent to the project site across PR-127. This will allow produced energy to be interconnected to the existing transmission network operated by PREPA. According to a LUMA Energy interconnection study, interconnection will require upgrades to the Costa Sur SP Transmission Center, which will be the responsibility of LUMA Energy (LUMA Energy 2023b).

The components of the Peñuelas Project are:

- Energy Storage System – BESS, consisting of 140 units (CATL EnerC [0.5C]) measuring 9.5 feet high by 8 feet deep by 20 feet long, to store approximately 100 MW of electricity.
- Substation – This consists of an open-type substation (150 feet by 200 feet) on a gravel base with a generator step-up (GSU) capacity of 72/96/120 MVA.
- Transmission Line – This consists of construction of a 115 kV overhead sub-transmission gen-tie with six 88-foot steel monopoles (see Table 1 for a breakdown of the disturbance area), each with an on-the-ground footprint of 15 square feet, that will run across PR-127 for approximately 800 feet. This line will reach the proposed interconnection point with the PREPA electrical network at the Costa Sur SP Transmission Center, which is directly south of the project across PR-127.
- PCS – The 13 PCS components will each consist of six batteries (CATL EnerC+ [0.25C]), two inverters (Ingeteam Sun Storage ISS-3930TL-HV-C730/3.414 MVA), and one step-up transformer (7.4 MVA, 34.5 kV grounded wye/730 V delta); another 10 PCS components will each consist of five batteries (CATL EnerC+ [0.25C]), two inverters (Ingeteam Sun Storage ISS-3930TL-HV-C730/3.414 MVA), and one step-up transformer (7.4 MVA, 34.5 kV grounded wye/730 V delta).

The project will also require a 0.98-mile-long trench for MVAC cables running from the BESS yard to the substation, along with 0.8 mile of gravel access roads (Figure 23).

2.1.3 Ponce Project

Convergent proposes to construct the 25 MW Ponce Project on two adjacent properties in the municipality of Ponce (Figure 26). The project will be interconnected through a 38 kV connection with the Juana Diaz Transmission Center in the municipality of Ponce, with a 38 kV sub-transmission line running along Camino Falso for approximately 925 feet. As per the LUMA Energy interconnection study, upgrades will be required for the Juana Diaz Transmission Center, which will be the responsibility of LUMA Energy (LUMA Energy 2023c). It is estimated that approximately 4,248 cubic yards of fill will be brought in (source to be confirmed during construction).

The Ponce Project will be located on two parcels, identified as Parcel A (Survey No. 342-092-117-12-000) and Parcel B (Survey No. 366-000-001-20-00-00) for purposes of this document (see Table 1 for a breakdown on project components and area). The parcels are located along PR-511, Interior State Road, Barrio Coto Laurel, in the municipality of Ponce, Puerto Rico.

The components of the Ponce Project are:

- Energy Storage System – This consists of a BESS to store approximately 25 MW of electricity.
- Substation – This consists of an open-type substation (130 feet by 80 feet) with a GSU capacity of 18/24/30 MVA.

- Transmission Line – This consists of construction of a 925-foot-long, 38 kV sub-transmission gen-tie with nine 88-foot steel monopoles, each with an on-the-ground footprint of 15 square feet, that will run along Camino Falso for approximately 275 feet through an easement from PREPA, which is currently under negotiation.
- PCS – The two PCS components will each consist of six batteries (CATL EnerC+ [0.25C]), two inverters (Ingeteam Sun Storage ISS-3930TL-HV-C730/3.414MVA), and one step-up transformer (7.4 MVA, 34.5 kV grounded wye/730 V delta); another four PCS components will each consist of five batteries (CATL EnerC+ [0.25C]), two inverters (Ingeteam Sun Storage ISS-3930TL-HV-C730/3.414MVA), and one step-up transformer (7.4 MVA, 34.5 kV grounded wye/730V delta).

The project will also require a 700-foot-long trench for MVAC cables running from the BESS yard to the substation, along with 1,261 feet of gravel access roads.

2.1.4 Caguas Project

Convergent proposes to construct the 25 MW Caguas Project in the municipality of Caguas, Puerto Rico (Figure 35). The parcel (Cadastre Number 199-054-725-22-000) is at the intersection of PR-1 and PR-52 in the Bairoa neighborhood (Figure 35).

The Caguas Project includes interconnection with the PREPA electrical system at the Bairoa Transmission Center, which is directly adjacent to the project site in the municipality of Caguas, using a 38 kV sub-transmission line (Figure 35). According to the LUMA Energy interconnection study, upgrades to the Bairoa Transmission Center will be required and completed by LUMA Energy (LUMA Energy 2023a). The connection to state telecommunications will be provided by the Puerto Rico Telecommunications Bureau. The connection to water services will be provided by PRASA, and electricity service will be provided by PREPA. Prior to construction, requests for connection points will be made, according to the recommendations issued by Puerto Rico Telecommunications Bureau, PRASA, and PREPA. The public utilities will give recommendations related to their respective interconnection points and approve the infrastructure designs. It is estimated that approximately 103 cubic yards of fill will be brought in (source to be confirmed during construction); structure demolition is not anticipated.

The components of the Caguas Project are:

- Energy Storage System – This consists of a BESS to store approximately 25 MW of electricity.
- Substation – This consists of an open-type substation (130 feet by 80 feet with a gravel base) with a GSU capacity of 18/24/30 MVA.
- Transmission Line – This consists of construction of a 38 kV sub-transmission gen-tie line with three steel monopoles, each with an on-the-ground footprint of 15 square feet, that will run along the property for approximately 325 feet to the Bairoa Transmission Center.
- PCS – The two PCS components will each consist of six batteries (CATL EnerC+ [0.25C]), two inverters (Ingeteam Sun Storage ISS-3930TL-HV-C730/3.414 MVA), and one step-up transformer (7.4 MVA, 34.5 kV grounded wye/730 V delta); another four PCS components will each consist of five batteries (CATL EnerC+ [0.25C]), two inverters (Ingeteam Sun Storage ISS-3930TL-HV-C730/3.414 MVA), and one step-up transformer (7.4 MVA, 34.5 kV grounded wye/730 V delta).

The project will also require a 910-foot-long trench for MVAC cables running from the BESS yard to the substation, along with 705 feet of gravel access roads.

2.2 Construction of Project Structures and Equipment Installation

Project construction will include the following activities, which will take place 5 days a week between 7:00 a.m. and 5:00 p.m. and last approximately 1 year:

- Installation of signs on access roads to identify areas of construction activity
- Installation of fencing on the perimeter of the property
- Protection of archaeological/historical resources identified in the Phase I Archaeological Study (CSA Group 2023b) by installing fencing around the buffer zones of these resources
- Implementation of sediment and erosion control measures on properties where work will occur.
- Mobilization of equipment and installation of temporary offices (box trailers will be retrofitted as needed on a temporary basis, typically two triple-wide and four double-wide units to accommodate project teams)
- Implementation of clearing and grading activities on a total of 366.37 acres (377 cuerdas) across all four project sites (See “total fenced-in area” calculations in Table 1)

2.2.1 Coamo Project

- Buggies will be used to access unpaved areas at the PV site. During certain phases of construction, track-mounted equipment (e.g., excavator, pile driver) will enter unpaved/compacted areas. Access roads will be constructed first; as the project progresses, traffic in unpaved areas will decrease. Access roads will be capped with an American Association of State Highway and Transportation Officials code-compliant material (typically gravel).
- Solar panels and complementary systems will be installed, including a boxcar-type structure to house O&M activities.

2.2.2 Peñuelas Project

- Internal roads will be constructed on the BESS site.
- BESS and complementary systems will be installed. This includes construction of a 115 kV sub-transmission gen-tie with steel poles, running across PR-127 for approximately 500 feet, as well as a concrete and masonry structure (60 feet by 40 feet), which will be adjacent to the substation; this will be used as the facility's operations center.

2.2.3 Ponce Project

- Internal roads will be constructed on the BESS site.
- BESS and complementary systems will be installed. This includes construction of a 38 kV sub-transmission gen-tie with steel poles, running along Camino Falso for approximately 900 feet, as well as a concrete and masonry structure (60 feet by 40 feet), which will be adjacent to the substation; this will be used as the facility's operations center.

2.2.4 Caguas Project

- Internal roads will be constructed on the BESS site.
- BESS and complementary systems will be installed. This includes construction of a 38 kV sub-transmission gen-tie with steel poles, running approximately 150 feet, as well as construction of a concrete and masonry structure (60 feet by 40 feet), which will be adjacent to the substation; this will be used as the facility's operations center.

2.3 Project Schedule

General construction for the Coamo Project is scheduled to begin in October 2024. Construction is expected to be completed in March 2026; the commercial operation date is expected to be May 31, 2026. General construction for the Ponce and Caguas Projects is scheduled to begin in February 2025 (January 2025 for the Peñuelas Project). Construction is expected to be completed in April 2026; the commercial operation date is expected to be July 1, 2026 for the three BESS Projects.

2.3.1 Construction Staffing

Construction of the four projects will occur over a 2-year period. During this construction period, the average monthly workforce will be 117 workers for the Coamo Project, 61 workers for the Peñuelas Project, and 29 workers each for the Caguas and Ponce Projects.

2.4 Operation

Under normal operating conditions, permanent daily staff members will not be on-site. Maintenance personnel are expected to be on-site only during annual or semiannual visits for inspections and preventative maintenance. Sites will be monitored remotely for safety and performance. Six full-time Convergent employees, part of the Network and Control Center Operations Team, will remotely monitor assets. During operations, it is anticipated that at least two on-island Convergent employees will be hired to work with on-island DEPCOM Power and O&M subcontractors to maintain and operate all four projects.

2.4.1 Coamo Project

The operational period for the Coamo Project is 25 years, with an option to extend it to 35 years, according to the PPOA with PREPA. The operational period of the project includes the following activities:

- Security systems will be inspected and maintained, including perimeter fences at the properties.
- PV panel washing is not currently anticipated during construction or operation. Given the climate in Puerto Rico, it is expected that wind and rain will clean the modules.
- Inspections of the gates, roads, fencing, vegetation, structures, and all electrical components will take place regularly, along with inspections of the remaining components of the system, including wiring, grounding, PV modules, and batteries.
- Maintenance will be conducted per the O&M plan, which will be developed with the O&M provider. This will include at least semiannual visits, including inspections of and preventative maintenance for all equipment on-site; any parts found to be failing or underperforming will be replaced.
- A final plan that shows the access roads throughout the project site will be issued with the final set of construction plans.

2.4.2 BESS Projects (Peñuelas, Ponce, Caguas)

The operational period for the BESS projects is 25 years, with an option to extend it to 35 years, according to the projects' ESSAs with PREPA. The operational period of the BESS projects includes the following activities:

- Security systems will be inspected and maintained, including perimeter fences at the properties.
- Inspections of the gates, roads, fencing, vegetation, structures, and all electrical components will take place regularly, along with inspections of the remaining components of the system, including wiring, grounding, and batteries.

- Maintenance will be conducted per the O&M plan, which will be developed with the O&M provider. This will include at least semiannual visits, including inspections of and preventative maintenance for all equipment on-site; any parts found to be failing or underperforming will be replaced.
- Access roads will be maintained for the life of the projects.
- Vegetation that grows between the battery containers will be maintained.

2.4.3 Waste Management

Any hazardous or solid waste generated during operation of the project (e.g., waste from emergency generator use) will be containerized and disposed of in accordance with all applicable local and federal regulations (e.g., oil and absorbent materials will be containerized in a drum, labeled correctly, and transported under a chain of custody to an approved disposal facility). For the collection and hauling of waste, either the collection services of the local municipality or a private company authorized by the Department of Natural and Environmental Resources (DNER) will be used. Waste materials will be disposed of at a sanitary landfill that has been authorized to receive such materials.

3.0 ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

In each of the following sections, a specific resource area is addressed with both qualitative and, where applicable, quantitative information to concisely describe the nature and characteristics of the resource that may be affected by the projects as well as the potential direct and indirect impacts on that resource from the projects, given the projects' controls. A conclusion regarding the significance of impacts is provided for each resource area.

Section 3.13 provides a review of the present and reasonably foreseeable federal and nonfederal actions that may contribute to a cumulative impact when added to the impacts of the Proposed Action. The impacts of past actions were reviewed and included as part of the affected environment to establish the current condition of the resource (the baseline condition) that may be affected by the Proposed Action.

3.1.1 Coamo Project

The proposed property for the Coamo Project lies in the Dry Forest Zone, according to the Holdridge Life Zone System (Ewel and Whitmore 1973). Fourteen percent of Puerto Rico's land surface is classified as Dry Forest. According to the study by Ewel and Whitmore (1973), this life zone is the driest of the six ecological zones in Puerto Rico. Low rainfall (e.g., 2.4 inches, or 61 millimeters, per year in Santa Isabel) occurs from September to November.

Vegetation tends to form complete ground cover. It is almost entirely deciduous, with small succulent or leathery leaves; thorny species are also abundant. Grazing among small ruminants (goats and sheep) is common. Forestry has little commercial opportunity in this life zone, except for limited production of extremely durable fence posts and some high-quality specialty timbers, such as *Swietenia mahagoni* (*Dominican mahogany*) and *Guaiacum officinale* (*Guayacan*) (Appendix C and CSA Group 2023e).

Historically, the properties proposed for the Coamo Project have been used primarily for agriculture and transportation, following the construction of PR-545. During operation of the Coamo Project, the property would be mostly covered with PV panels.

3.1.2 BESS Projects (Peñuelas, Ponce, and Caguas)

During operation, each property (Peñuelas, Ponce, and Caguas) would be mostly covered with battery system containers, and a substation. During normal operations, the three BESS projects and their respective equipment would not generate atmospheric emissions, solid waste, noise, or discharges to the aquifer or surface water. Air emissions would result from emergency generator operation and periodic testing. Solid waste would be generated from periodic site and equipment maintenance activities. Stormwater would be managed in accordance with stormwater management plans. Specific impacts on each of these areas are discussed in later sections.

With respect to soils, hydrology, and vegetation, reconnaissance (i.e., the site visits conducted for the flora and fauna studies by William Sarriera on August 28, 2023) from the three BESS sites indicates that no natural systems would be affected by the BESS projects (Appendix C and CSA Group 2023a,c,d). The three BESS projects would all be located on sites that have been previously disturbed by industrial, agricultural, and urban uses. The Peñuelas Project would be located at a former industrial facility, and the Ponce Project would be located on agricultural land that is not in use. The Caguas Project would be located on leveled land next to an existing substation and a major roadway.

3.1.2.1 Peñuelas Project

The site for the Peñuelas Project is currently a vacant lot. The land has been affected by industrial activities, which were carried out for more than 30 years. The southern portion of the property has an asphalt cap and a concrete foundation from a former building. The remaining portions of the property are covered by dense vegetation, including the invasive white leadtree (*Leucaena leucocephala*) (Appendix C and CSA Group 2023c). Two aboveground power lines run west to east through the property and connect the Costa Sur Power Plant, which is west of the site, to an oil terminal facility, which is east of the site (Roux Environmental Engineering and Geology 2024b).

3.1.2.2 Ponce Project

The site for the Ponce Project is currently a vacant lot, except for the area with a small structure in the southwestern portion of the property; this structure is an encroachment from a neighboring property rather than the remnants of a previous use on the project site. This structure is fenced in and has no access (Roux Environmental Engineering and Geology 2024c). The project site consists of two parcels, with Plot A being dominated by grasses, although a few trees were also observed, such as the invasive white leadtree (*Leucaena leucocephala*), eucalyptus, and cat's claw. Plot B was completely covered by grasses (Appendix C and CSA Group 2023d).

3.1.2.3 Caguas Project

The site for the Caguas Project was previously used for repairing and washing cars. Gravel and paved asphalt areas are found on the southern portion of the property. The central portion of the Caguas property was used as a parking area for truck trailers. The northern portion of the property, which appears unused, is covered with mowed grass and overgrown vegetation (Roux Environmental Engineering and Geology 2024a). Grasses dominate the vacant property, although some trees were observed on the border of the property. The species included areca palm, almendro, yagrumo, and several sombrero palms (Appendix C and CSA Group 2023a). To the north and east, the property borders the ramp leading from PR-52 to PR-1. To the south, commercial and industrial uses dominate. To the west, the property borders the Bairoa neighborhood.

3.2 Cultural Resources

3.2.1 Coamo Project

An archaeological study was carried out to the Phase I (IA-IB) level to identify cultural resources that could be affected by construction activities associated with the project (CSA Group 2023b). The proximity to surface water resources, the agricultural capacity of the soil, and the non-flooding nature of the terrain made the property ideal for establishing human settlements both during the pre-Colombian period and during the colonial period. The documentation consulted indicates that, from 1960 to the present, the properties proposed for development were free of structures, with the notable exception of the remains of Hacienda Carmen. Hacienda Carmen consists of a brick chimney, the remains of a Jamaican train, a brick structure, and two cement structures. The closest recorded archaeological site, identified as CO-1 (Las Flores), is approximately 500 feet (150 meters) south of the southeastern boundary of the main estate. The Las Flores site, which is on a plateau approximately 150 feet (46 meters) above the Coamo River, is associated with the Igneri-Pre Taino (Cuevas/Ostoinoide) cultural period. This site is made up of several shell and ceramic mounds that surround a rectangular plaza with two rows of stones. The area, which has been affected by agricultural activities (plowing), was excavated in 1973 by archaeologist Juan J. Ortiz Aguilú. As a result of the Phase I archaeological study, the limits of the remnants of Hacienda Carmen were identified. It was confirmed that the Las Flores site does not extend past the limits of the property proposed for development. No additional

areas of archaeological interest were identified within the limits of the main property). According to the Phase I archaeological study, the project as proposed would not affect properties included in the National Register of Historic Places in Puerto Rico or archaeological sites previously registered in the inventory of the Council for the Protection of the Terrestrial Archaeological Heritage of Puerto Rico (CSA Group 2023b).

A transmission line would run within the ROW of a municipal street and PR-545. The interconnection parcel does not currently have permanent structures; however, there are wooden fences that keep horses within the parcel. There are no cultural resources registered in the archives of the Council for the Protection of the Terrestrial Archaeological Heritage of Puerto Rico or the State Office of Historical Conservation in the path of the proposed transmission line or within the limits of the interconnection property. During April and May 2023, archaeologist Aramis Font Negrón carried out archaeological studies at the Phase IB level on the parcels proposed for development (CSA Group 2023b). As a result of the studies, the archaeologist was able to identify the horizontal and vertical limits of an area of archaeological interest within the ROW of the interconnection line.

There are cultural resource sites in the vicinity of the project site. Construction work could affect areas of archaeological interest within the boundaries of the project site. However, the following protective measures would be applied to avoid any potential impact on said resources before, during, and after carrying out construction of the project:

- Hacienda Carmen Ruins – This area would be avoided. Prior to construction, the contractor would erect a fence around the buffer area, as identified in the Phase I archaeological study (CSA Group 2023b). Fencing locations would be identified on the project’s civil construction drawings. The fence would remain in place permanently or until the project is decommissioned. The contractor would identify the protected area as “Hacienda Carmen Ruins, protected cultural resource.”
- Area of Archaeological Interest in Interconnection Property – Prior to construction, the contractor would erect a fence around the buffer area, as identified in the Phase I archaeological study (CSA Group 2023b). The fence would remain in place permanently or until the project is decommissioned. The contractor would identify the area as a “protected area,” without identifying it as an area of archaeological interest (so as not to promote furtive excavations). At no time would the protected area be used as a storage or parking area.

On March 20, 2024, the State Historic Preservation Office (SHPO) concurred with DOE’s determination that the project would not affect historic properties. Given the lack of direct impacts on cultural or archeological resources, the protective measures that are in place, and the concurrences from SHPO that the projects would have no adverse effects on historic properties, the project would not have significant direct or indirect impacts on historical or archeological resources.

3.2.2 BESS Projects (Peñuelas, Ponce, Caguas)

Below is a timeline of the historical uses for each of the BESS sites, as compiled from a review of historical aerial photographs, historical topographic maps, historical certified Sanborn Fire Insurance Company maps, a City Directory Abstract, and an interview with key representatives for the Peñuelas and Caguas sites. These historical uses were compiled as part of each project’s respective Phase I environmental site assessment (ESA).

Peñuelas Project Historical Uses (Roux Environmental Engineering and Geology 2024b):

- 1941: Guayanilla storage site
- 1941–1942: Site used by the U.S. Army Air Corps as an aviation gasoline and oil storage site for the Caribbean Air Command

- 1950s– 2012: Site operated by the Shell Company, Ltd. (Puerto Rico), as an oil terminal; included development of multiple buildings in the southern portion of the property and multiple petroleum bulk storage tanks in the eastern and northwestern portions of the property
- 1962: Southern portion of the site developed with multiple buildings, including petroleum bulk storage tanks in the eastern and northwestern portions of the site

Ponce Historical Uses (Roux Environmental Engineering and Geology 2024c)

- 1962, 1967: Site used for agricultural purposes.
- 1962–2023: Site vacant and undeveloped, according to reconnaissance in December 2023

Caguas Historical Uses (Roux Environmental Engineering and Geology 2024a)

- 1962–1988: Site undeveloped
- 1988–1994: Single structure built in the southern portion of the property
- 2023: Southern portion of the property used for repairing and washing cars

After a review of Puerto Rico Planning Board (PRPB) databases and information published by SHPO, no significant archaeological sites or historic buildings, either registered or eligible for registration in the National Register of Historic Places, were identified in the project areas or within 1,300 feet (400 meters) of the BESS sites (Peñuelas, Ponce, and Caguas). No significant archaeological sites or historic buildings are registered or eligible for registration; public parks, recreational areas, and wildlife or waterfowl refuges are not present on the parcels or on the periphery of the parcels (Appendix A, Agency Correspondence).

Approval of a recommendation for environmental assessment (REA) for the Ponce Project was delivered on March 4, 2024 with a condition to complete a Phase IA-IB archeological study prior to construction (Appendix B) (Puerto Rico Department of Economic Development and Commerce 2024e,f). The Phase IA-IB archeological study was completed on May 17, 2024) (CSA Group 2024b; AM Group 2024).

REA approval was obtained for the Caguas Project on February 28, 2024. No additional archeological studies were required for this site (Puerto Rico Department of Economic Development and Commerce 2024b). Approval of a determination of environmental compliance (DEA) was obtained for the Caguas Project on June 17, 2024 (Appendix B) (Puerto Rico Department of Economic Development and Commerce 2024a).

REA approval for the Peñuelas Project was obtained on April 3, 2024 (Puerto Rico Department of Economic Development and Commerce 2024d). DEA approval was obtained for the Peñuelas Project on June 7, 2024, and for Caguas on June 17, 2024 (Puerto Rico Department of Economic Development and Commerce 2024c). The DEA approval for the Ponce Project is still pending.

SHPO concurred with DOE's determinations that the Peñuelas and Caguas Projects would have no adverse effects on historic properties. Approvals were received for the Peñuelas Project on December 4, 2023, and the Caguas Project on December 5, 2023 (Appendix A). SHPO requested a Phase I (IA-IB) survey for historic properties as part of the REA approval mentioned above. The Phase IA-IB for the Ponce Project was completed on May 17, 2024 (CSA Group 2024b; AM Group 2024), and submitted to the Permits Management Office (OGPe) on Jun 12, 2024, for approval (filing number 2023-524361-SRA-300570). DOE submitted a determination that the Ponce project would not affect any historic properties on July 25, 2024, and the SHPO concurred with DOE's determination on August 19, 2024.

In the event that cultural resources (e.g., human remains, lithics, pottery, remnants of older construction) are discovered during construction of the projects, work would cease in the vicinity of the discovery, and the Institute of Puerto Rican Culture (Instituto de Cultura Puertorriqueña) and DOE would be notified. A

qualified archaeologist or a designated representative would evaluate any such discovery and, in consultation with SHPO and the institute, implement the appropriate measures before construction activities would resume.

Given the absence of adverse impacts on cultural resources within and surrounding the project sites, as supported by the Phase 1A-1B for the Ponce Project (CSA Group 2024b; AM Group 2024), as well as the controls that are in place in the event of an unanticipated discovery of such materials, the BESS projects' impacts on cultural resources would not be significant.

3.3 Water Resources

3.3.1 Surface Water

3.3.1.1 Coamo Project

The hydrographic systems in Coamo are the Coamo River and the Descalabrado River. The property for the Coamo Project is 1,200 feet (365 meters) north of the Coamo River. An unnamed stream borders the property on its western boundary (Figure 6). An unnamed intermittent creek crosses the property from northwest to southeast, discharging into the Coamo River. As part of the Coamo Project flora and fauna study, a qualified wetland scientist performed an inspection of the project site and, based on the resources observed, determined that the project would not affect wetlands on-site (Appendix C) (CSA Group 2023e). The project would avoid all water features.

As a DNER requirement, a 33-foot (10-meter) separation from the top of bank or the riparian forest would be implemented in the area surrounding the Coamo River and main stream channel running north–south on-site; a 16-foot (5-meter) separation would be implemented at all other streams/ditches on-site (Figure 15).

During construction of the projects, surface waters and conservation areas, as well as established buffer areas, would be identified on the projects' civil construction drawings and implemented to avoid impacts on such areas (Figure 15, Figure 23, Figure 32, Figure 44). Buffer or protection areas would be implemented along streams as part of the project to avoid any impact on them. A Stormwater Pollution Prevention Plan (SWPPP) and Spill Prevention, Control, and Countermeasures (SPCC) Plan would be prepared in accordance with U.S. Environmental Protection Agency (EPA) requirements (40 CFR Parts 112 and 122.26), along with an Erosion and Sedimentation Control Plan (CES Plan) for the protection of water resources.

3.3.1.2 Peñuelas Project

The closest surface water bodies to the project area are Guayanilla Bay (Caribbean Sea), which is approximately 1,100 feet (345 meters) southwest of the project area, and the Tallaboa River, which is approximately 1.25 miles (2,000 meters) west-southwest. Also, a small intermittent creek is west of the project property (Figure 22). As indicated in Figure 22, the Peñuelas Project would not affect any of these surface waters. The project site is not close to any surface water.

3.3.1.3 Ponce and Caguas Projects

No surface waters would be affected by the Ponce Project (Figure 31) or the Caguas Project (Figure 43). The closest surface water body to the Caguas Project is the Bairoa River (Figure 43), which is approximately 1.5 mile (2.4 kilometers) to the south. As indicated in Figure 31 and Figure 43, the Ponce and Caguas Projects would not affect any of these surface waters. The project sites are not close to any surface water.

Given the avoidance of impacts on surface water resources and the implementation of buffer zones during construction, as well as the stormwater and spill prevention plans, the projects' impact on surface water resources would not be significant.

3.3.2 Wetlands

3.3.2.1 Coamo Project

The riparian forest areas bordering the streams on the site were staked by a qualified wetland biologist, Ruben Rivera-Rosario, on April 11, 2024 (Appendix C) (CSA Group 2023e), and the identified buffer zones were subsequently incorporated into the site plan (Figure 15). In terms of hydrology and wetlands, the Coamo River is identified as bordering the northeastern, eastern, southeastern, and southern portions of the areas under study (Figure 6). The Coamo Project would avoid all surface water features.

Within the limits of the study area, an unnamed intermittent stream was observed crossing the property from the northern limit to the southeastern limit, draining toward the Coamo River.

The stream adjacent to the southwestern margin of the main parcel would be crossed by an overhead transmission line. The line would exit the main lot and extend to the interconnection point, which borders a freshwater forested/shrub wetland approximately 1,330 feet (400 meters) south and 330 feet (100 meters) east of the interconnection point. On the parcel for the interconnection point, which is in the Jauca 2 neighborhood, an unnamed stream borders the northwestern portion of the parcel's limits. Portions of the eastern/southern margin of the main project site border a freshwater forested/shrub wetland adjacent to Coamo Reservoir (Figure 6) (U.S. Fish and Wildlife Service [USFWS] 2024).

The footprint for the project was established with consideration of the presence of the aforementioned wetlands. The project would maintain a buffer strip of at least 16 feet (5 meters) to ensure no impact on any wetland or body of water as well as a buffer 33 feet (10 meters) from the Coamo River and main north-south stream channel running through the site.

As indicated in the U.S. Army Corps of Engineers (USACE) jurisdictional wetland assessment, performed by CSA Group in May 2024, the Coamo Project would not occupy wetland areas (CSA Group 2024a). As indicated in this report, hydrologic surface and soil indicators show that the project site is outside USACE jurisdiction. The wetlands on the project boundaries, as mentioned above and shown in Figure 15 and Figure 6, would be protected per guidance from DNER. Therefore, the Coamo Project's impact on wetlands would not be significant.

3.3.2.2 BESS Projects (Peñuelas, Ponce, and Caguas)

As indicated in the flora and fauna study performed by CSA Group (Appendix C) (CSA Group 2023a,c,d), data from the National Wetland Inventory, and the physical site visit conducted by Ruben Rivera-Rosario on August 28, 2023, no wetlands have been identified within any of the BESS properties (Figure 22, Figure 31, Figure 43). In addition, a wetland review conducted by ACEnvironmental in June 2024 confirmed that, for the three BESS projects, no wetlands were identified at or near the project sites that could be affected by project development (ACEnvironmental 2024a,b,c). This report was also supported by three site visits (August 28, 2023, January 23, 2024, and March 12, 2024) to the BESS project sites.

Because no wetlands were identified within the project properties during inspections, and none appear in the National Wetland Inventory, a wetland delineation was not performed for the projects. As indicated in the figures, because the three BESS projects (Ponce, Peñuelas, and Caguas) are not adjacent to any wetlands, the impact on wetlands would not be significant.

3.3.3 Stormwater

PRPB regulations for stormwater management systems (DNER Stormwater Management Program Permit No. PRR040048) require development projects to be designed so as not to generate additional stormwater discharges beyond pre-development site conditions. Any required measures for stormwater management to meet PRPB regulations would be incorporated into the final project design.

To minimize impacts during construction, a CES Plan, SWPPP, and SPCC Plan would be prepared for each project as part of the Construction General Permit. These plans would discuss best management practices (BMPs) to avoid or minimize impacts associated with the construction phase and prevent material from entering surface waters. BMPs may include silt fences, straw wattles, and check dams to reduce surface water velocities and prevent sediment from traveling off-site when surface vegetation is removed during construction.

During the operational stage, emergency generators for the projects would have dual-wall, sub-base fuel tanks to reduce the possibility of harmful spills or the spread of contaminants that could affect bodies of water.

3.3.3.1 Coamo Project

No significant changes to stormwater runoff patterns within the property are anticipated because of the stormwater mitigation plans that would be prepared (see Section 3.3.3) as well as the absence of floodplains. Three detention ponds featuring multistage outlet structures and 200-year emergency spillways would be constructed to ensure that stormwater runoff would be maintained at or below current levels. In addition, the implementation of vegetative buffer zones, along with the discharge of water from detention basins into “level spreaders,” would help to manage discharges by directing runoff through rough surfaces. To further enhance stormwater management, low-impact development practices would be established during the construction phase. This includes developing plans for vehicle paths and minimizing impervious surfaces, which would help reduce soil compaction and minimize other impacts that could adversely affect the site’s storm response. Regular maintenance would be conducted to ensure that conveyance capacity would remain optimal and would not be limited by sediment accumulation.

Figure 7 shows mapped floodplain areas on the project site or in the vicinity. All Coamo Project land is in Zone X, which is outside flood-susceptible zones, as indicated in FEMA flood insurance maps and the Puerto Rico Advisory Base Flood Elevations Map (Figure 7).

3.3.3.2 Peñuelas Project

No significant changes to stormwater runoff patterns within the property are anticipated because of the stormwater mitigation plans that would be prepared (see Section 3.3.3) as well as the absence of any high-risk floodplains.

Figure 21 shows mapped floodplain areas on the project site or in the vicinity. According to FEMA Flood Insurance Rate Map 72000C1620J (effective November 18, 2009), lands within the project area are classified as Zone X (i.e., areas of moderate or minimal risk of flooding from the main source of flooding in the area). All project land is outside flood-susceptible zones. This is also supported by the Puerto Rico Advisory Base Flood Elevations Map (Figure 21).

3.3.3.3 Ponce Project

No significant changes to stormwater runoff patterns within the property are anticipated because of the stormwater mitigation plans that would be prepared (see Section 3.3.3) as well as the absence of any high-risk floodplains.

Figure 30 shows mapped floodplain areas on the project site or in the vicinity. All project land is in Zone X, which is outside flood-susceptible zones, as indicated in FEMA flood insurance maps. This is also supported by the Puerto Rico Advisory Base Flood Elevations Map (Figure 30).

The closest surface water bodies to the project area are Inabon River, which is approximately 1,100 feet (350 meters) southwest of the project area, and Vista Alegre Lake, which is approximately 800 feet (250 meters) north. Artificial Lake No. 5 (2,100 feet [650 meters] west), Lake No. 2 (3,000 feet [900 meters] north-northwest), Lake Moline (4,000 feet [1,250 meters] west-southwest), and Lake Ponceña (3,400 feet [1,050 meters] east-southeast) are more than 1,300 feet (400 meters) from the project area.

3.3.3.4 Caguas Project

No significant changes to stormwater runoff patterns within the property are anticipated because of the stormwater mitigation plans that would be prepared (see Section 3.3.3) as well as the absence of any high-risk floodplains.

Figure 42 shows mapped floodplain areas on the project site or in the vicinity. According to FEMA Flood Insurance Rate Map 72000C0745J (effective April 13, 2018), 95 percent of the parcel under study is classified as Zone X (i.e., areas of moderate or minimal flood risk from a major flood event in the area). This is also supported by the Puerto Rico Advisory Base Flood Elevations Map (Figure 42). The remaining 5 percent of the parcel has been classified by the agency as having a flood hazard with an annual chance of 0.2 percent. This area is in the southern portion of the parcel, which is not included in project construction plans. The flood zone would not be affected by the project because the development area is outside of the flood zone, as indicated by the site layout and the FEMA floodplain map (Figure 42, Figure 44).

Pursuant to Executive Order 1188, Floodplain Management, and 10 CFR Section 1022, Compliance with Floodplain and Wetland Environmental Review Requirements, DOE has reviewed the projects' impacts and determined that there would be no direct effects on floodplains or wetlands. Indirect impacts would be reduced by avoidance measures and the BMPs described in this section.

3.3.4 Groundwater

3.3.4.1 Coamo Project

The alluvial deposits in the Coastal Valley exhibit high water storage and transmission capacities. The South Coast Aquifer occupies an area of 19.3 square miles (4,999 hectares) and is up to 3,000 feet (914 meters) thick (CSA Group 2021b). The properties proposed for the Coamo Project are east of the South Coast Aquifer (Figure 3).

Within the properties proposed for the Coamo Project, four irrigation wells were identified. Two were identified by DNER; the other two were observed during the flora and fauna study (Appendix C) (CSA Group 2023e). Another 11 wells can be found within 1,300 feet (400 meters) of the project perimeter. DNER prohibited the use of these wells for construction purposes.

During the operational stage, emergency generators for the Coamo Project would have dual-wall, sub-base tanks to reduce the possibility of harmful spills that could affect groundwater or surface water.

Presently, the area to be occupied by the Coamo Project contains wells for the extraction of groundwater for agricultural purposes. Groundwater resources within 1,300 feet (400 meters) of the project site are shown in Figure 4. Buffer areas and well protection systems would be shown on the project's civil construction drawings and implemented as part of Coamo Project construction to avoid any impact related to the on-site groundwater wells (Figure 15). Operation of the Coamo Project would not entail activities that would affect groundwater resources.

The project would develop a SWPPP and SPCC Plan that would identify measures to prevent, contain, clean up, and dispose of any material leaks or spills.

3.3.4.2 Peñuelas Project

Between 1941 and 1942, the property was operated by the U.S. Army Air Corps as an oil storage facility. The property was purchased by the Shell Company, Ltd. (Puerto Rico), on August 29, 1953, and operated by Shell as an oil terminal from 1960 to 1982 when operations ceased. During that period, the former fuel terminal stored and distributed various hydrocarbon products, such as diesel, gas oil, fuel oil, kerosene, leaded and unleaded gasoline, bitumen, asphalt, and specialty fuel oils. The buildings and bulk storage tanks were demolished between November 2012 and June 2013; the property was then regraded to facilitate natural drainage. Historical investigations at the project site indicate that light non-aqueous phase liquid was detected in January 1992 in groundwater, with the suspected source of the contamination being the CORCO facility, which is upgradient of the property.

The project would not affect the water table identified in the Phase I ESA prepared by Roux Environmental Engineering and Geology. Groundwater contamination was identified in the Phase II ESA, as indicated in Table 2, below (Roux Environmental Engineering and Geology 2024b/2024d). Table 2 lists the groundwater samples from the Phase II ESA that were above the screening levels for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals in tap water. As discussed in the Phase II ESA, groundwater was encountered at 29 and 66 feet below ground surface at the two monitoring wells; it is unlikely that groundwater would be encountered or need to be managed as part of project development (Roux Environmental Engineering and Geology 2024d). An unidentified discovery plan would be prepared by Roux and distributed to the contractor, describing preventative measures and procedures to follow should any groundwater or potential contamination occur during construction activities. The project would develop a SWPPP and SPCC Plan that would identify measures to prevent, contain, clean up, and dispose of any material leaks or spills.

Table 2: Peñuelas Site Groundwater Samples from Phase II ESA

Analyte	EPA Regional Screening Levels for Tap Water (µg/L)	Number of Detections above EPA Regional Screening Levels for Tap Water (µg/L)	Range in Concentration above EPA Screening Level for Tap Water (µg/L)	
VOCs				
Benzene	0.46	2	1.7–6,300	
Ethylbenzene	1.5	2	11/1/5,300	
Isopropylbenzene	450	1	460	
Methyl tert-butyl ether (MTBE)	14	2	33–380	
Methylcyclohexane	200	1	1,400	
o-Xylene	190	1	8,600	
Toluene	1,100	1	2,900	
SVOCs				
1,1'-Biphenyl	0.83	2	1.7 J–160	
2-Methylnaphthalene	36	1	1,000 D	
Benzo[a]anthracene	0.03	1	0.77 J	
Benzo[a]pyrene	0.025	1	0.50 J	
Naphthalene	0.12	2	4.9–1,000 D	
Metals				
Aluminum	Total	20,000	1	64,400
	Dissolved	0.052	2	14.4–392
Arsenic	Total	0.052	2	2.7–12
	Dissolved	0.052	2	

Analyte		EPA Regional Screening Levels for Tap Water (µg/L)	Number of Detections above EPA Regional Screening Levels for Tap Water (µg/L)	Range in Concentration above EPA Screening Level for Tap Water (µg/L)
Barium	Total	3800	1	1010
Cadmium	Total	1.8	1	1.9 J
Cobalt	Total	6	2	6.8–48
Iron	Total	14,000	2	26,800–281,000
Lead	Total	15	1	304
	Dissolved	15	1	75.6
Manganese	Total	430	2	580–3,480
Vanadium	Total	86	1	1,350

Source: Roux Environmental Engineering and Geology 2024d.
µg/L = micrograms per liter

3.3.4.3 Ponce Project

The project site was used for agricultural purposes in 1962 and 1967. The property was vacant and undeveloped in December 2023 when Roux Environmental performed the Phase I ESA. The potential exists for pesticides, herbicides, and insecticides, which are used in agricultural activities, to have adversely affected the subsurface environmental quality of the subject property. Convergent would rely on slab-on-grade construction for the BESS. Because minimal soil disturbance is expected with project development, the risk from residual pesticides, herbicides, and insecticides affecting the site of the future BESS is minimal.

Because Convergent proposes slab-on-grade construction, groundwater would not be encountered during construction. Furthermore, it is important to note that the BESS would be located outdoors. Because the BESS would not be enclosed, potential risks related to soil vapor are not anticipated and would not affect construction workers or operators at the BESS (Roux Environmental Engineering and Geology 2024c). Furthermore, there are no operating wells with potable, commercial, or agricultural water within 1,300 feet (400 meters) of the project site. The Project would develop a SWPPP and a SPCC Plan that would identify measures to prevent, contain, clean up, and dispose of any material leaks or spills.

3.3.4.4 Caguas Project

The project site lies on the same parcel as JR Charter Service, a transit company that currently uses the southern portion property for auto repair purposes. During the Phase I ESA investigation, Roux observed petroleum storage, waste oil storage, auto repair supplies, and petroleum staining on gravel and the uncapped areas on the property. Roux’s observations indicate poor housekeeping practices with respect to the auto repair activities conducted in the exterior areas of the property. These observations suggest a potential risk from the release of petroleum products and hazardous materials associated with auto repair operations, which could affect the subsurface environmental quality of the property (Roux Environmental Engineering and Geology 2024a). During the historical review, an electrical substation was identified, adjoining the subject property to the west. Electrical substations commonly used petroleum products, including polychlorinated biphenyl– (PCB-) containing oils if built before 1978, in power distribution infrastructure. A release of such substances could adversely affect the environmental quality of the property, considering the adjoining facility is hydraulically upgradient from the Caguas property.

Although two recognized environmental conditions (RECs), auto repair activities and an electrical substation, have been identified for the property, it is Roux's understanding that activities associated with the identified RECs appear to have occurred outside Convergent's development area for the BESS. Specifically, the auto repair areas are close to a warehouse, which lies outside the BESS development area; the adjoining electrical substation is also outside the BESS development area. Consequently, the risk from the RECs on future BESS construction or operation would be minimal (Roux Environmental Engineering and Geology 2024a). There are no wells with drinking, commercial, or agricultural water on the project site or within a 1,300-foot (400-meter) radius of the project site. The Project would develop a SWPPP and SPCC Plan that would identify measures to prevent, contain, clean up, and dispose of any material leaks or spills.

Because of the avoidance measures and plans that will be in place, including the SWPPP and SPCC at all sites and the unexpected discovery plan for Penuelas, the Project would not have significant direct or indirect impacts on groundwater resources.

3.4 Noise

The main source of noise, heavy equipment, would be present during the construction phase of the projects. Noise would occur mainly during installation of the footings to support the batteries and the PV modules (i.e., for the Coamo Project). These activities would last approximately 200 days. During the operational phase of the project, it is expected that sound levels would remain below applicable regulatory levels, given the nature of the projects, which would not include permanent sources of noise.

Noise regulations in Puerto Rico establish allowable limits for residential areas (i.e., 60 decibels [dB] during the day and 50 dB at night). Because the closest residence would be more than 100 feet from the construction sites, and because noise attenuates with distance, project construction is not anticipated to exceed the limits established for surrounding receptors. During construction, noise would be concentrated within the interior areas of the properties (e.g., along interior roads) and at entrances. The expected noise level 10 feet from a pile driver would be 120 dB.

To minimize noise during the construction phase, heavy equipment would be required to have up-to-date noise control systems, operating as directed by the manufacturer. The noise control systems would minimize the increase in noise both where the work is carried out and at nearby locations. Construction activities would occur mainly during daytime hours on weekdays (i.e., Monday to Friday from 7:00 a.m. to 5:00 p.m.). Contractors would maintain control over the tasks to be carried out each day to comply with the established work schedule.

During project operation, a significant increase in noise is not anticipated, given the absence of any type of machinery or equipment that would permanently increase existing levels. The proposed emergency generators would have noise-attenuating cabinets and be used only temporarily when PREPA service is interrupted.

3.4.1 Coamo Project

The approximate distance from the PV panels to the closest residence would be 153 feet (46.6 meters); the closest residence to the BESS would be 1,082 feet (329.8 meters) away. The quiet areas closest to the proposed property, as designated by the DNER Regulation for the Control of Noise Pollution, are the Herminio Santaella School, 490 feet (150 meters) to the northwest; Susana Rivera Nueva School, 2,100 feet (640 meters) to the west; and Rufino Huertas School, 3,180 feet (970 meters) to the southeast. There are no universities, hospitals, or senior centers within 3,281 feet (1 kilometer) of the project site (Figure 11).

The main source of noise, heavy equipment, would be present during construction of the Coamo Project and in use during installation of the footings for the PV modules, which would last approximately 200 days. In the operational phase of the project, it is expected that sound levels would remain below the applicable

regulatory levels, given the nature of the project, which would not include permanent sources of noise. Activities with high noise levels, such as pile-driving activities, would produce a noise level of about 120 dB at 10 feet (3 meters). To reduce disturbances, such activities would occur only during daytime hours.

3.4.2 Peñuelas Project

The approximate distance to the closest residence from the footprint for the Peñuelas Project is 0.55 mile. The quiet area, as designated by the DNER Regulation for the Control of Noise Pollution, is the Jorge Lucas Pérez Valdivieso School, 2.08 miles (3.3 kilometers) to the southeast. There are no universities, hospitals, or senior centers within 3,300 feet (1,000 meters) of the Peñuelas Project.

3.4.3 Ponce Project

The approximate distance to the closest residence from the footprint for the Ponce Project is 424 feet (129 meters); the residence is to the southwest. The nearest urban area is Sombras del Real, approximately 1,131.89 feet (345 meters) to the southeast. The quiet areas closest to the proposed property are the Family Christian Academy, 1,902.89 feet (580 meters) to the west, and Juan Serrallés Middle School and Juan Serrallés High School, both 3,444.88 feet (1,050 meters) to the south. There are no universities, hospitals, or senior centers within a 1,300-foot (400-meter) radius of the Ponce Project (Figure 33).

3.4.4 Caguas Project

The area in which the Caguas Project would be developed must observe the permitted Zone I and Zone II noise regulations for residential/commercial areas with mixed uses, as required by Caguas municipal zoning (CSA Group 2021a). A predominantly residential area is located to the west; commercial uses are located to the south. The closest residence to the Caguas Project is 55 feet away. Because of the residential community west of the project site, noise levels would be limited to 65 dB during daytime hours and 55 dB at night. There are no schools, universities, hospitals, clinics, or senior centers within a 1,300-foot (400-meter) radius of the Caguas Project. As identified in Sections 3.2.2 and 3.2.2.1 of the Caguas REA, construction and operation of the Caguas Project would not have a significant impact on noise levels in the area (Puerto Rico Permit Management Office 2023).

For all projects, the noise level would be negligible once the projects are in operation. Because of the limits on noise in local laws and regulations, the temporary nature of construction activities, and the lack of operational noise impacts, the projects' impact on noise levels would not be significant.

3.5 Transportation

During the construction phase, traffic would be temporarily affected as the trucks and heavy equipment necessary to carry out the work enter the area. This would cause the traffic flow to become slower on the peripheral roads that provide access to the project site, especially during the hours in which construction would be carried out. However, measures would be implemented to control traffic (e.g., by establishing a speed limit, complying with the operating schedule for machinery, using modern equipment). A Maintenance of Traffic (MOT) Plan would be implemented during the construction phase that would establish work zones for the project, provide transportation management measures, and temporarily control traffic on streets and highways. Specifically, an MOT Plan would be prepared for the access point to the project site where deliveries of equipment and supplies would interrupt normal traffic for short periods. As required by local DTOP regulations, the MOT Plan would include recommendations regarding traffic signs and speed limits to ensure the safety of drivers and construction crews.

Finally, BMPs would be implemented to limit adverse impacts on traffic associated with construction activities. The BMPs would include traffic management techniques and measures to control fugitive dust, ensure proper maintenance of vehicles, and minimize vehicle downtime, among others.

In total, the four projects would require approximately 800 truck trips to transport materials and 320 truck trips to transport soil. During construction, a maximum of 60 truck trips per day with heavy loads would occur. During operations, a maximum of 20 light-vehicle trips per day would occur as maintenance personnel inspect all four projects.

The roads that would be affected by each project are:

- **Coamo Project:** The project site would be accessed from PR-52. Drivers would take the Coamo exit, then PR-545 to the north and PR-14 to the east until reaching the entrance to the project site. However, the project site has at least three access routes, PR-52, PR-545, and PR-14, which are primary traffic routes (Figure 15).
- **Peñuelas Project:** The project site would be accessed from PR-2. Drivers would take the Peñuelas exit, then PR-385 to the south and PR-127 to the west until reaching the entrance to the project site. However, the project site has at least three access routes, PR-2, PR-385, and PR-127, which are primary traffic routes (Figure 23).
- **Ponce Project:** The project site would be accessed from PR-52. Drivers would take the Coto Laurel exit, then PR-506 to the north, PR-14 to the east, and PR-511 to the northwest until reaching the access road to the Coto Laurel Solar Farm and continuing through Camino Falso to the project site (Figure 32). However, the project site has at least three access routes, PR-52, PR-14, PR-511, which are primary and secondary traffic routes.
- **Caguas Project:** The project site is at the intersection of PR-1 and PR-52 in the Bairoa Ward, Caguas, Puerto Rico. The site would be accessed from PR-1. Drivers would take Camino Bairoa until reaching the project site (Figure 44). However, the project site has at least three access routes, PR-52, PR-14, PR-511, which are primary and secondary traffic routes.

The additional traffic generated by the projects during their operational stages would be considered negligible compared to the traffic in the project areas (DTOP 2019–2021). The additional traffic could be easily accommodated by the road infrastructure in the area. In addition, parking would be provided for employees and workers, as well as suppliers, within each of the project areas during the construction and operational phases. Therefore, any impact on traffic and transportation would not be significant.

3.6 Land Use

The regulatory agency responsible for land use in Puerto Rico is PRPB. On June 16, 2023, PRPB implemented Regulation 9743, Joint Permit Regulation for Evaluating and Expediting Permits Related to Land Development and Use and the Operation of Businesses (Joint Permit Regulation 2023). Joint Permit Regulation 2023 classifies land in terms of zoning districts and establishes specific requirements regarding the use and the design parameters of the projects permitted in such districts. PRPB has also adopted zoning regulations to facilitate the control and management of land uses as well as guide the permitting and development process.

Land Use Consultation (Consulta de Ubicación [CUB for its acronym in Spanish]) is the usual process for projects that are not expressly authorized (i.e., permitted as of right) within a specific zoning district. The OGPe, as PRPB's operational branch, also plays a critical role in authorizing the siting and development of projects by implementing and enforcing the public policy adopted by PRPB. Despite renewable energy projects being allowed as of right in a number of zoning districts in Puerto Rico, Land Use Consultation is also the process through which OGPe's Adjudicative Board reviews and authorizes the siting and

development of renewable energy projects of more than 1 MW in Puerto Rico. As part of adopting the framework for the development of renewable energy projects, PRPB issued Resolution No. JPI-41-01-2023 on October 18, 2023. In relevant part, the resolution clarifies that the definitions for “renewable energy system” and “renewable energy sources” are meant to include projects consisting of a stand-alone BESS without an energy generation component.

3.6.1 Coamo Project

The site for the Coamo Project is zoned UR (Developable Land), with a small portion of the land zoned as CR, for Resource Conservation (Figure 8). Within the UR zone, the land use, as designated by the Puerto Rico Planning Board, is Specially Protected Rustic Land-Agricultural (SREP-A). The land use designated in the CR zoned portion of the site is Specially Protected Rustic Land-Landscape (SREP-P) (Figure 10). The project does not fall within any of the CR-zoned land and thus avoids any SREP-P. According to 2020 Joint Regulation (2021 term), properties classified as Agricultural Productive (A-P), allow “Energy Projects Renewable” as one of the permitted uses, compatible with the purposes of the Regulation. The Coamo Project will only be built on land with SREP-A designation, which allows renewable energy projects, and will obtain all required approvals and authorizations related to land use, therefore there would be no significant direct or indirect impacts on land use.

3.6.2 Peñuelas Project

The parcel is zoned Heavy Industrial (I-P) (Figure 24). The zoning would not change with this project. The project site is within the Coastal Zone Inland Boundary (CZIB) and therefore under the purview of the Puerto Rico Coastal Zone Management Program (PRCZMP). The CZIB includes areas 1,000 meters from the shoreline. The PRCZMP requires all federally funded projects within the CZIB to be evaluated through the coastal consistency determination process and issued a certification of consistency. The project was presented to the program’s evaluating agency, PRPB, on April 10, 2024, and a revised version was submitted on April 30, 2024, in response to PRPB comments. The PRPB indicated on October 1, 2024 that the federal consistency certificate had been completed and is in process to be signed by the Secretary of that agency. The coastal consistency determination was still pending as of the date of this EA. The proposed land use is consistent with the historical industrial use of the project site, and DOE has determined that the project would be consistent with the PRCZMP.

3.6.3 Ponce Project

The site for the Ponce Project is zoned AP.4 (OGPe equivalent R-G [Rural General]), with a land use classification of SU – Urban Land (Figure 33). The land use classification would not change with this project.

3.6.4 Caguas Project

R-I (Intermediate Residential) is the zoning for 80 percent of the property; the remaining 20 percent is zoned C-I (Intermediate Commercial) (Figure 38). The Caguas Project would be located entirely on land with R-I zoning. The Land Use Consultation process would be required prior to requesting a construction permit because residential zoning does not allow BESS projects.

As indicated in the sections above, the projects would conform to the land use requirements of each area. The Caguas Project is the only project located in an area where zoning would not allow the BESS. However, Land Use Consultation would be conducted and, to conform with the zoning requirements of Caguas, all necessary procedures would be followed. Therefore, the four projects would not have a significant impact on current land uses in their respective locations.

3.7 Aesthetic and Visual Resources

3.7.1 Coamo Project

The Coamo Project would be developed in a rural area. Views to the west, north, south, and east are of agricultural land. The project site is somewhat visible from nearby residences, depending on vegetation density between the project site and the residence. The closest residence to the PV panels would be 153 feet (46.6 meters) away; the closest residence to the BESS would be 1,082 feet (329.8 meters) away.

Residences near the project site currently have a view of rural undeveloped land, which is covered by various vegetation types. The completed Coamo Project would change the view for some residents as PV panels are added on the grassy landscape. An example of a current view is shown in Figure 47. An example of a PV and BESS project is shown in Figure 48.

3.7.2 Peñuelas Project

The Peñuelas Project would be in a developed area bordered by the CORCO oil terminal and Costa Sur power plant. Views to the west and east are of industrial land. Views to the north are of industrial and vacant land. The view to the south is of PR-127. The Peñuelas Project would be visible only from PR-127. The project area is zoned Heavy Industrial (I-P) (Figure 24).

3.7.3 Ponce Project

Views to the west, north, and east comprise industrial land, a utility-scale PV project, and a transmission-level substation. The site for the Ponce Project would be visible from residences to the southwest. The closest residence would be 424 feet (129 meters) from the project site. Residences currently have a view that includes undeveloped land with grass, shrubs, and small trees, along with the utility-scale PV project. Views of the undeveloped land would be replaced with a view of the Ponce Project and associated equipment. However, the Juana Diaz Transmission Center, which is nearby, has already exposed residences to similar views of electrical equipment.

3.7.4 Caguas Project

The site for the Caguas Project is developed land. The view to the north comprises the Bairoa substation and PR-52. The view to the east comprises state highways. The view to the south comprises a PR-52 exit ramp and PR-1. The Caguas Project would be visible from commercial facilities to the south and residences to the west.

The closest residence to the Caguas Project would be 55 feet away. The current view for residences comprises an existing substation, an existing warehouse, and undeveloped land. Development of the Caguas Project would not significantly alter the view because the BESS and associated facilities would be similar in appearance to other equipment currently in the area.

Construction of the four projects would result in permanent visual changes to the currently open land at each project site. Changes would include the new BESS, and the O&M building, and solar panels for the Coamo Project. Although the appearance of the new facilities would be consistent with that of other solar and BESS facilities on the island, operation of the facilities would result in a minor increase in nighttime light.

Given the design of the four projects, which would have a low profile, would not be constructed in areas with steep slopes, and would be situated out of the line of sight, impacts on aesthetic and visual resources would not be significant.

3.8 Biological Resources and Threatened and Endangered Species

3.8.1 Coamo Project

The Coamo Project would be located between the hills of the island's central area and the southern coastal plain. These lands have been affected by current and historic agricultural uses as well as urban and residential development. Currently, large portions of the land for the project are occupied by fast-growing grasses and shrubs associated with abandoned agricultural activities. Two vegetative associations were identified: strips and patches of riparian forest and land previously used for agriculture (Figure 49 and Figure 50).

In the project area, natural habitats are classified under two categories, as described in DNER's Regulations for the Protection of Wildlife (Regulation No. 6765):

- Natural Habitat with Great Potential to Become Essential Habitat, Habitat with High Ecological Value, or Habitat with Ecological Value – Category #5: Strips of Riparian Forest.

The properties proposed for development include strips and patches of riparian forest associated with an unnamed intermittent stream that runs from northwest to southeast and a drainage basin to the south that leads to and connects with the Coamo River. The riparian forest areas are within the main channel of the unnamed stream (Figure 50). These areas make up a natural corridor that provides bird habitat. Based on field observations, it was evident that the riparian forest areas have high ecological value because of the high diversity of species and large number of individuals that use them.

The riparian forest areas contain species of mature trees that are not found in other areas. These include Manila tamarind or Madras thorn (*Pithecellobium dulce*), Panama berry (*Muntingia calabura*), West Indian elm or bay cedar (*Guazuma ulmifolia*), West Indian birch, (*Bursera simaruba*), Java cotton or Java kapok (*Ceiba pentandra*), Puerto Rico royal palm (*Roystonea borinquena*), and Doll's stick (*Cordia allcocca*) (Appendix C) (CSA Group 2023e).

The project design would not affect riparian forest strips because project components would be located outside those areas (Figure 15).

- Natural Habitat with Low Potential to Become Essential Habitat with High Ecological Value or Habitat with Ecological Value – Category #6: Land Previously Used for Agriculture.

A large portion of the land proposed for development is occupied by fast-growing grasses and shrubs associated with abandoned agricultural activities. Therefore, the habitat is undergoing successional changes. Herbaceous species lead the ecological succession, followed by shrub species. However, the area is very dry; therefore, succession is slow. The land is currently dominated by xeric grasses, which have adapted to a dry habitat, and shrub species.

A flora and fauna study (Appendix C) (CSA Group 2023e) was carried out on the properties proposed for project development, including the corridor for the transmission line to the interconnection point. During the study, day and night inspections were conducted to identify and document flora and fauna throughout the project site. Within the properties, 324 species of flora were identified, corresponding to 74 families in the two dominant vegetative associations: land previously used for agriculture and riparian forest strips. None of the identified species of flora and fauna found within the studied areas are federally listed as threatened or endangered. All are common species with wide coverage in the area and throughout the region.

Portions of the land are occupied by fast-growing grasses and shrubs such as white leadtree (*Leucaena leucocephala*), white siris or karo tree (*Albizia procera*), Manila tamarind or Madras thorn (*Pithecellobium dulce*), and catclaw blackbead (*Pithecellobium unguis-cati*). Other areas of the properties are planted with hay and plantains.

The strips and patches of riparian forest surround an unnamed stream that crosses one property from northwest to southeast, eventually draining toward the Coamo River. Strips were also observed to the south, along a drainage basin that connects to the Coamo River. Observed within these strips of riparian forest were woody species such as West Indian birch (*Bursera simaruba*), Java cotton or Java kapok (*Ceiba pentandra*), royal poinciana or flamboyant (*Delonix regia*), bullet tree, (*Terminalia buceras*), cassia tree (*Senna siamea*), and partridge wood (*Andira inermis*).

DOE submitted a biological assessment (BA) for the Coamo Project to the U.S. Fish and Wildlife Service (USFWS) on March 27, 2024. DOE identified the following species using the USFWS Information for Planning and Consultation (IPaC) tool:

- Puerto Rican nightjar (*Antrostomus noctitherus*) – endangered
- Puerto Rican boa (*Chilabothus inornatus*) – endangered
- Puerto Rican crested toad (*Peltophryne lemur*) – threatened
- Beautiful goetzea (*Goetzea elegans*) – endangered
- Eugenia woodburyana – threatened

The site for the Coamo Project site is not within the range of the two plant species (beautiful goetzea and Eugenia woodburyana); therefore, DOE made a “no effect” determination for those species.

In July 2022, a USFWS 5-year review of the Puerto Rican crested toad noted that a 2021 study had installed sound recorders at the Gabia Farm, a reintroduction site, but failed to detect any toad vocalizations. The site for the Coamo Project site is outside the known range of the Puerto Rican crested toad. DOE therefore makes a “no effect” determination for the species.

The most recent USFWS 5-year status review for the Puerto Rican nightjar (USFWS 2023) reiterated findings from the 2012 and 2017 5-year reviews, stating that the sedentary nightjar is linked to mature closed-canopy forests (citing González 2010). The location for the Coamo Project, in open agricultural land, and the project design would avoid or minimize impacts on the riparian forest at the margins of the project footprint. In addition, González (2010) noted that nightjars are not known to occur in riparian forests. Therefore, based on the occurrence data, lack of suitable habitat, and project design, DOE proposed a “not likely to adversely affect” determination for the nightjar in the BA.

DOE requested formal consultation for the Coamo Project regarding potential effects on the federally endangered Puerto Rican boa (*Chilabothrus inornatus*). Although the probability of a boa occurrence within the construction footprint is minimal because of the site history, current land use (cleared agricultural land), and the project design, DOE determined that adhering to the terms and conditions of the programmatic BA for the boa is in the best interest of species conservation. Consultation under the programmatic BA requires DOE to make a determination of “may affect, likely to adversely affect” for the Proposed Action. Adherence to the terms and conditions of the programmatic BA provides for a take exemption related to this action. USFWS concurred with DOE’s determination on May 3, 2024.

The Coamo Project would affect lands of low value for wildlife (i.e., Category #6, as determined by DNER’s Regulations for the Protection of Wildlife). The Coamo Project has been designed to avoid strips and patches of riparian forest (Figure 15). Observations carried out as part of this study noted that strips and patches of riparian forest have high ecological value for many species. These areas, which would be avoided, form a natural corridor and provide protection, food, and areas for rest and roosting.

The property proposed as an interconnection point is approximately 190 feet (58 meters) from the Conservation Priority Area for the Puerto Rican crested toad (*Peltophryne lemur*), as established by DNER. However, during the flora and fauna study carried out on the properties, this species was not observed and/or identified (Appendix C) (CSA Group 2023e).

Because of the avoidance measures, the coordination with USFWS to protect federally listed species, and lack of impacts on previously undisturbed natural areas, the Coamo Project's impact on biological resources would not be significant.

3.8.2 Peñuelas Project

In accordance with the provisions of Law 241, known as the New Puerto Rico Wildlife Law, and its regulations, DNER habitat certification was obtained by Convergent for the Peñuelas Project on February 15, 2024. The proposed property is located within an industrial area. The area is heavily disturbed by existing and historic urban uses. Field studies conducted at the site found invasive species present (Appendix C) (CSA Group 2023c). The areas adjacent to the project site reflect a long period of development. Based on the definition of "natural habitat" from Law 241, supra, and Regulation 6765 of February 11, 2004, the project property is excluded from the definition because it is located within an urbanized area that, for decades, did not qualify as irreplaceable habitat, essential habitat, habitat of high ecological value, habitat of ecological value, or habitat with great potential to become habitat of high ecological value or ecological value.

Currently, the project site is occupied by fast-growing grasses, trees, and shrubs, which are typical of disturbed areas. The vegetative dominance corresponds mainly to the tendril (*Leucaena leucocephala*) and grasses; there are few species of fauna on the project property. Although trees were found, none of them are in significant numbers or suited to form unique vegetative associations and create essential habitat. None of the species of flora and fauna identified are listed as critical, threatened, or endangered species by the state or federal government (Appendix C) (CSA Group 2023c)

According to information collected by the Division of Natural Heritage, DNER, and USFWS, along with field observations (conducted on August 28, 2023), no threatened, endangered, or critical species were identified in the project area or areas close to the project property. IPaC screening (Appendix A) flagged the federally endangered Puerto Rican boa (*Chilabothrus inornatus*), Puerto Rican nightjar (*Antrostomus noctitherus*), and the Bariaco plant (*Trichilia triacantha*), along with the threatened West Indian manatee (*Trichechus manatus*) and Palo De Rosa plant (*Ottoschulzia rhodoxylon*), as potential listed species in the general area (Appendix C) (CSA Group 2023c). The flora and fauna survey did not record any occurrences of listed species on-site.

The conversion of the site to heavy industrial uses more than 80 years ago, the continuing heavy industrial uses and disturbances on lands surrounding the site, and the lack of suitable habitat for any of the listed species flagged in the IPaC report renders the site as highly improbable for the presence of any such species in the general area. Therefore, DOE made a "no effect" determination for the Puerto Rican boa, Puerto Rican nightjar, Bariaco plant, Palo De Rosa plant, and the West Indian manatee on March 27, 2024.

Because of the industrial setting of the site; the lack of impacts on natural habitat, as defined in Law 241, supra, and Regulation 6765; and lack of effects on federally threatened or endangered species, the Peñuelas Project's impact on biological resources would not be significant.

3.8.3 Ponce Project

In accordance with the provisions of Law 241 and its regulations, DNER habitat certification was obtained by Convergent for the Ponce Project on February 15, 2024. The project site is located between the hills of the island's central area and the southern coastal plain. Currently, the project site is occupied by fast-growing grasses, trees, and shrubs associated with past agricultural activities.

In the project area, natural habitats are classified according to DNER's Regulation for the Protection of Wildlife (Regulation No. 6765):

- Natural Habitat with Low Potential to Become Essential Habitat, Habitat with High Ecological Value, or Habitat with Ecological Value – Category #6: Land Previously Used for Agriculture.

A large portion of the land proposed for development is occupied by fast-growing grasses and shrubs associated with abandoned agricultural activities. Therefore, the habitat is undergoing successional changes. Herbaceous species lead the ecological succession, followed by shrub species. However, the area is very dry; therefore, succession is slow. The land is currently dominated by xeric grasses, which have adapted to a dry habitat, and shrub species.

A field visit was conducted on August 28, 2023, with the purpose of identifying the flora and fauna species on the property proposed for the Ponce Project (Appendix C) (CSA Group 2023d). Plot A was dominated by grasses; a few trees were also observed, such as white leadtree, eucalyptus, and cat's claw. Plot B was completely covered by grasses. In general terms, because the flora associated with the project area consists mostly of grasses and white leadtree, there are few fauna species on the property. The fauna observed were represented exclusively by bird species that are widely distributed in Puerto Rico, such as nightingale, ruddy quail dove, common warbler, mozambique, and common falcon. No reptile or amphibian species were observed during the field visit. As reported from the field visit, no threatened or endangered species were observed on the project site (Appendix C) (CSA Group 2023d).

None of the identified species of flora and fauna within the studied areas are classified as threatened or as being in danger of extinction. All are common species with wide coverage in the area and throughout the region.

IPaC screening flagged the federally endangered Puerto Rican boa (*Chilabothrus inornatus*) as a potential listed species in the general area (see attached IPaC report). The flora and fauna survey did not record any occurrences of listed species on-site. The lack of suitable habitat for the Puerto Rican boa on the project site, as well as the historically severed connectivity to distant off-site boa habitat for more than 30 years, limits the potential for boa occurrences on the 3.9-acre (4.02-cuerda) construction site. Therefore, DOE made a "no effect" determination for the Puerto Rican boa. On June 10, 2024, USFWS confirmed that, because of DOE's "no effect" determination, no further Section 7 consultation would be required for this site. Because of the lack of impacts on high-value ecological habitat, as defined in Puerto Rico Regulation No. 6765, as well as the lack of impacts on federally threatened or endangered species, the Ponce Project's impact on biological resources would not be significant.

3.8.4 Caguas Project

In accordance with the provisions of Law 241 and its regulations, DNER habitat certification was obtained by Convergent for the Caguas Project on February 15, 2024. The project site has been heavily affected by urban land uses. It is currently a mowed grassy area adjacent to the Bairoa substation and major highways.

A field visit was carried out on August 28, 2023, with the purpose of validating the information provided by USFWS and identifying the species of flora and fauna on the site for the Caguas Project (Appendix C) (CSA Group 2023a). Grasses dominated the vacant property, although some trees were observed on the border of the property. The species included areca palm, almendro, yagrumo, and several sombrero palms. To the north and east, the property borders the ramp from PR-52 to PR-1. To the south, commercial and industrial uses dominate. To the west the property borders the Bairoa neighborhood.

In the project area, natural habitats are classified according to DNER's Regulation for the Protection of Wildlife (Regulation No. 6765):

- Natural Habitat with Low Potential to Become Essential Habitat, Habitat with High Ecological Value, or Habitat with Ecological Value – Category #6: Land Previously Developed.

The project site is occupied by fast-growing grasses and shrubs associated with abandoned developed lands.

The species observed are widely distributed in Puerto Rico and characteristic of areas that have been affected by urban development; however, the species have adapted to these conditions. No threatened or endangered species were observed on the project site.

The fauna observed were represented exclusively by bird species with wide distribution in Puerto Rico (Appendix C) (CSA Group 2023a). Reptiles or amphibians were not observed during the field visit.

None of the identified species of flora and fauna within the studied areas are classified as threatened or as being in danger of extinction. All are common species with wide coverage in the area and throughout the region.

The IPaC species list (Appendix A) indicates that the range of the boa overlaps the project area. However, because of the lack of suitable habitat and the site's heavily disturbed nature, DOE has determined there would be "no effect" on the boa from the Caguas Project and no further consultation with USFWS is therefore required.

Because of avoidance of ecological habitats with high value, as defined under Puerto Rican law and regulations; the selection of previously disturbed and/or industrial sites for the Caguas Project; and the conservation measures implemented for the protection of the Puerto Rican boa, the projects' impacts at the four sites would not be significant.

3.9 Socioeconomics and Environmental Justice

3.9.1 Socioeconomics

The main occupations across Puerto Rico involve educational services, health care, and social assistance. About 15.7 percent of the civilian employed population across Puerto Rico holds construction jobs. The poverty rate in Puerto Rico is 41.7 percent. The projects, excluding the Caguas Project, are in areas with poverty rates that are above the average (U.S. Census Bureau 2022).

According to data from the 2021 Puerto Rico Solar Jobs Census from the Interstate Renewable Energy Council (IREC), Puerto Rico has about 1,985 jobs in the solar industry, with 255,037 jobs overall throughout the country (IREC 2021). The IREC census data can be used to break down the following jobs by sector:

■ Facilities	629
■ Manufacturing	161
■ Wholesale trade and distribution	637
■ Operation and maintenance	398
■ Others	159

The main source of jobs generated from these projects are during the construction phases. No new housing or supporting infrastructure is anticipated as a result of the projects. It is expected that the vast majority of workers would be local to the island, with the possible exception of some specialists for

commissioning the assets who may travel from the mainland; however, Convergent and its O&M partners are aiming to train and certify local firms/personnel for these roles. It is expected that adequate housing would be available because these new hires would be existing residents of the island.

The BESS projects would not require a permanent on-site operations staff, only a periodic maintenance and inspection staff.

The project is expected to generate socioeconomic benefits by providing a source of renewable energy for PREPA's distribution network. This would contribute to the stabilization, reliability, and affordability of the electrical system and be in line with the objectives of the Puerto Rico Energy Public Policy Act—specifically, Act 17 of April 11, 2019.

The direct jobs from the four projects come would from the different phases of construction. The jobs include administrative, project management, and engineering roles, along with craft labor roles such as electricians, carpenters, drivers, and operators. The jobs generated from each project are:

- **Coamo Project:** Peak staffing for the Coamo Project during the construction period would amount to 350 employees, with 117 employees being the average staffing number. The Coamo Project would have an apprentice program for workers. These workers would account for at least 15 percent of the total number of work hours. Based on a preliminary breakdown of the construction workforce, this would amount to 45,000 total work hours from apprentice program workers. The intent of this program is to establish an apprenticeship program for people from local communities. The Coamo Project would generate two direct jobs, which would be required for the lifecycle of the project.
- **Peñuelas Project:** Peak staffing for the Peñuelas Project during the construction period would amount to 100 employees, with 61 employees being the average staffing number.
- **Ponce and Caguas Projects:** Peak staffing for the Caguas and Ponce Projects during the construction period would amount to 45 employees, with 29 employees being the average staffing number for each project.

The average monthly workforce required for construction at all four sites would amount to 207. During operation, the projects would benefit the local and general economy by contributing to the development of a stable electrical system. The projects would also generate tax revenue, create business opportunities related to periodic maintenance, and generate two long-term jobs (from the Coamo Project), which would be required during the lifecycle of the project. Therefore, the projects' impact on socioeconomics would not be significant.

3.9.2 Environmental Justice

LPO's review of environmental justice (EJ) issues focuses on Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations; the National-Scale Air Toxics Assessment cancer risk and respiratory hazard index, as defined in EPA's EJ screening tool; and site-specific population centers (e.g., schools, day-care centers) near the project site.

Executive Order 12898 directs federal agencies to address environmental and human health conditions in minority and low-income communities. The evaluation of EJ is dependent on determining if high and adverse impacts from the project would disproportionately affect minority or low-income populations in the affected community.

In accordance with EPA's EJ guidelines, minority populations should be identified when either 1) the minority population of the affected area exceeds 50 percent or 2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

Given the number of jobs created during construction, as well as the two full-time permanent jobs expected to be created, the four projects would benefit the regional economy. As shown in Table 3 and Table 4, below, the municipalities where the projects would be based reflect the demographic trends of Puerto Rico. Compared to the United States, these are minority and low-income communities. Construction and operation of the projects would result in benefits for these disadvantaged communities, which align with the Justice40 initiative (e.g., increasing clean energy jobs, increasing energy resiliency, decreasing environmental exposure to pollutants from fossil-fuel power generation, and improving energy equity).

Table 3: Population, Ethnicity, and Poverty

	Ponce Municipio	Caguas Municipio	Coamo Municipio	Peñuelas Municipio	Puerto Rico	U.S.
Total Population	130,251	124,608	33,662	19,563	3,205,691	334,914,895
Race/Ethnicity						
White alone	53.9%	55.8%	31.2%	74.6%	43.6%	75.5%
Black or African American alone	5.7%	8.8%	13.0%	2.7%	8.8%	13.6%
American Indian and Alaska Native alone	0.1%	0.3%	0.0%	0.0%	0.2%	1.3%
Asian alone	0.1%	0.3%	0.0%	0.1%	0.2%	6.3%
Native Hawaiian and Other Pacific Islander alone	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Two or more races	31.7%	14.5%	52.0%	4.6%	23.3%	3.0%
Hispanic or Latino	99.3%	98.1%	99.7%	99.3%	98.7%	19.1%
White alone, not Hispanic or Latino	0.4%	1.4%	0.3%	0.4%	0.8%	58.9%
Poverty	50.4%	37.0%	49.9%	52.1%	41.7%	11.5%

Source: Population and ethnicity data gathered from the U.S. Census Bureau web page. Accessed: March 15, 2024 (U.S. Census Bureau 2024a; U.S. Census Bureau 2024b).

Table 4: EPA’s EJ Screening Report

	Value	P.R. Average	Percentile in P.R.	U.S. Average	Percentile in U.S.
Air toxics cancer risk (lifetime risk per million)	19	20	0	25	1
Toxic releases to air	1,200	4,300	64	4,600	63
People of color	99%	96%	26	39%	96
Low income	72%	70%	43	31%	95

Source: EPA EJ Screen Community Report. Accessed: March 15, 2024 (EPA 2024b).
PR = Puerto Rico

The four projects would not emit hazardous air pollutants during operation. They would, however, prevent 360 kilotons of carbon dioxide (CO₂) emissions from being emitted by replacing fossil-fuel generation with an additional 63 MW of energy from the Coamo Project, based on LPO’s internal technical assessment. Because of the jobs created for local communities, the provision of clean energy to the power grid, and the

reduction in GHG emissions and other air pollutants, the project would have positive effects with respect to EJ. The projects' impacts on EJ would not be significant.

3.10 Health and Safety

The generation of hazardous waste is not anticipated during construction or operation of the projects. Also, a Health and Safety Plan would be prepared and implemented during construction and operation.

Fuel used in emergency generators would be delivered to the facilities by truck. The emergency generators would have dual-wall, sub-base fuel tanks to reduce impacts on surface water or soils. A SPCC Plan and Pollution Incident Prevention Plan that covers fuel management, routes where possible spills could occur, and spill prevention measures would be prepared and implemented to address issues regarding operations at the facilities. This plan and the pre-existing conditions at each project site are discussed further in Section 3.3.4, *Groundwater*. In addition, an Unanticipated Discoveries Plan would be prepared for the Peñuelas Project. The aim of the plan would be to provide guidance that would ensure worker safety as well as prevent the spread of further contamination in the event that waste and/or contaminated soils, as defined in applicable federal, state, and local regulations and guidelines, are encountered during construction of the BESS. The plan would clearly divide responsibilities (e.g., identifying, addressing, and mitigating contamination) between Convergent and contractors and be accompanied by a comprehensive flow chart that would clearly delineate the response protocol (Roux Environmental Engineering and Geology 2024e).

Standard BMPs and applicable federal, state, and local regulations and standards for construction and operation of the facility would be implemented to ensure the safety of workers and the public. This would include compliance with federal Occupational Safety and Health Administration regulations and state rules under the Puerto Rico Occupational Safety and Health Act (PR OSHA).

The local fire department would be informed of potential hazards associated with the facility and provided with construction and layout information. This would ensure that first responders and the public would be protected from any exposure to potentially hazardous emissions (e.g., toxic smoke or vapors) in the event of a fire or industrial accident.

Because of measures to address health and safety, including BMPs; compliance with federal, state, and local regulations and standards; plans for preventing chemical spills and the potential mishandling of hazardous materials; and the experience gained from handling and using hazardous materials at an existing facility, impacts on the health and safety of workers and the public from construction and operation of the projects would not be significant.

3.11 Waste Management

During the process of preparing the sites for the installation of storage battery containers, as well as PV panels at the site for the Coamo Project, limited waste generation is anticipated. Furthermore, the generation of hazardous waste is not anticipated during construction or operation of the projects.

Vegetative waste material would be generated from weeding and clearing vegetation in areas that require it. Plant material will be removed as part of cleanup activities associated with micro-grading. This material would be used as a plant filter around each property's drainage ditches to help control runoff and sediment before reaching adjacent water bodies. This practice, as recommended by the U.S. Department of Agriculture (Bentrop 2008) and EPA for the protection of watersheds and reefs, results in reduced reuse of vegetative material for other uses. As mentioned in Section 3.10, *Health and Safety*, an Unanticipated Discoveries Plan would be in place to ensure worker and site safety if any contaminated soils are encountered during construction.

For collecting and hauling waste generated during construction and operation of the projects, the services of the local municipality or a private company authorized by DNER would be used. The authorized hauler would dispose of the waste in a sanitary landfill that has been authorized to receive such waste.

Solid waste generated during construction would be divided into the household waste generated by construction workers, which is described for each project below. The recyclable fraction of this waste would be segregated and sent to one of the collection companies that handles recyclable materials. The expected total waste generation from each site is described below.

- **Coamo Project:** It is estimated that approximately 10,000 cubic yards (bulked) of plant material from the Coamo Project will be removed and used as plant filter, as described above. At the site for the Coamo Project, several piles of solid waste were deposited by third parties without authorization (i.e., clandestine landfills). These piles consist of general household rubbish and construction debris (e.g., wood, concrete, PVC pipes). Solid waste within the footprint for the Coamo Project would be removed and disposed of in compliance with current EPA regulations. Solid waste generated during construction is estimated at 342 pounds per day for a period of 1.5 years, and packaging from solar panels and other equipment, which would be an estimated 40 tons of almost exclusively recyclable waste, such as cardboard and wood (Puerto Rico Solid Waste Authority 2008)
- **Peñuelas Project:** The site for the Peñuelas Project has concrete slabs and asphalt pavement that would need to be demolished. It is estimated that approximately 1,500 cubic yards (bulked) of plant material from the Peñuelas Project will be removed and used as plant filter, as described above. The Peñuelas Project would generate an estimated 270 pounds of solid waste per day for a period of 1.5 years; packaging from batteries and other equipment would generate an estimated 40 tons of almost exclusively recyclable waste (Puerto Rico Solid Waste Authority 2008).
- **Ponce Project:** It is estimated that approximately 3,500 cubic yards (bulked) of plant material from the Ponce Project will be removed and used as plant filter, as described above. The Ponce and Project would generate an estimated 112 pounds of solid waste per day for a period of 1.5 years; packaging from batteries and other equipment would generate an estimated 20 tons of almost exclusively recyclable waste (Puerto Rico Solid Waste Authority 2008).
- **Caguas Project:** The site for the Caguas Project has asphalt pavement that may need to be demolished. It is estimated that approximately 1,500 cubic yards (bulked) of plant material from the Caguas Project will be removed and used as plant filter, as described above. The Caguas Project would generate an estimated 112 pounds of solid waste per day for a period of 1.5 years; packaging from batteries and other equipment would generate an estimated 20 tons of almost exclusively recyclable waste (Puerto Rico Solid Waste Authority 2008).

Because of the limited amount of waste generated during project construction and operation, as well as the protection measures in place for the site of the Peñuelas Project, the projects' impacts on waste generation and disposal would not be significant.

3.12 Soils and Prime Farmlands

3.12.1 Coamo Project

The municipality of Coamo is in the geomorphological region known as the Southern Coastal Plains Province. Alluvial soils in arid and semi-arid areas are present. Soils in Coamo are generally dark, medium depth, and fertile. Evapotranspiration is greater than rainfall in this area; therefore, repeated use of irrigation water can sometimes result in salt buildup in the soil. Soils in Coamo can be grouped into three main categories, according to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) (Figure 5). These are:

- Humatas-Maricao-Guineos
- Caguabo-Múcara-Quebrada
- Callabo Association

The property for the Coamo Project consists of land that has been classified as State Significant Agricultural Land and Prime Farmland, if irrigated, according to USDA-NRCS; however, the majority of the property is not currently irrigated. Historically, the areas that would be developed have been used for agriculture, a practice that, as of January 2023, continued on some portions of the property with the production of hay and plantains. These agricultural areas make up approximately 10 percent of the property, with the rest of the land, approximately 90 percent, unused and classified as developable land, as confirmed by the Puerto Rico Department of Agriculture (Puerto Rico Department of Agriculture 2024). One landowner, whose land is being leased for the Coamo Project, is growing watermelons on a portion of his property; he will be moving his crops to a different location (i.e., other land that he already owns and uses). About 38 acres (40 cuerdas) are likely to be affected.

The Coamo Project would have a sheep grazing program on the property that would be under the care and supervision of a local farmer. The sheep would maintain vegetation around the property. Vegetation maintenance would also include traditional methods, such as mowing and weed whacking, if the sheep cannot control all growth on the property.

Prime Farmland, as defined by USDA-NRCS, is land with the ideal parameters for the production of food, feed, forage, fiber, and oilseed crops. For DOE's Farmland Protection Policy Act (FPPA) coordination with USDA-NRCS, a total area of 655 acres was submitted for evaluation, which includes the project's 359 acres of direct and indirect land conversion, as noted in the AD1006 form for this site (see Appendix A). Within that 655-acre area of interest, there are 433 acres of Prime or Unique Farmland, or 0.75 percent of the total in the county or local government unit. In the AD1006 form, the site for the Coamo Project received a relative value of 74 out of 100 and a total site assessment score of 96 out of 160, for a total score of 170 out of 260.

Although the Coamo Project would result in development in areas that are classified as Prime or Unique Farmland by USDA-NRCS, the project would convert a relatively small percentage (0.75 percent) of farmland in the local jurisdiction. In addition, 89 percent of the farmland within the jurisdiction is of equal or higher value, according to USDA-NRCS. Therefore, the Coamo Project's impacts on soils or Prime Farmlands would not be significant.

3.12.2 Peñuelas Project

The municipalities of Peñuelas and Guayanilla are in the geomorphological region known as the Southern Coastal Plains Province. Alluvial soils are present in arid and semi-arid areas.

The existing geological formation in the project area and adjacent areas is the Ponce Limestone (Tp) geological formation (Figure 19). Ponce Limestone is composed of calcareous strata that emerge between Ensenada and Ponce and reach their greatest thickness, 2,000 feet (609 meters), between the towns of Yauco and Ponce. Ponce Limestone contains abundant fossils of mollusks, foraminifera, protozoa, and echinoderms (e.g., sea star and urchin). The texture of the Ponce Limestone is similar to that of chalk (i.e., calcium carbonate) and can be correlated with the deposition of the Lares to Aymamón limestones of the north coast. At the end of the Tertiary period, 66.4 million years ago, volcanic activity died out in the Greater Antilles. Rainwater runoff in the mountains flowed through rivers, weathered rocks, and deposited sediment in valleys, coastal plains, and the sea (Figure 19).

According to the soil inventory of the USDS-NRCS Soil Conservation Service, soils in the project area have been classified as Unclassified Urban Soil (UI) (Figure 20). According to the land use plan, land in the project area is classified as Urban Land.

Soil samples from the Peñuelas Project were analyzed as part of the Phase II ESA and listed in Table 5, below (Roux Environmental Engineering and Geology 2024d). The Phase II ESA found that the soil samples were below EPA regional screening levels for industrial soil, except for arsenic, which is expected to be naturally occurring. The exceedances involving VOCs, SVOCs, and metals, which were above EPA screening levels for the protection of groundwater soil, would be incorporated into the Unanticipated Discoveries Plan. Therefore, if encountered during construction, the contaminants would be known and workers would be prepared to handle them.

Because of the industrial uses on the site, the plans for handling unexpected soil contamination, and absence of Prime Farmland, the Peñuelas Project' impact on soil or Prime Farmlands would not be significant.

Table 5: Peñuelas Site Soil Samples from Phase II ESA

Analyte	EPA Regional Screening Levels for Industrial Soil (mg/kg)	EPA Regional Protection of Groundwater Soil Screening Levels (mg/kg)	Number of Detections above EPA Regional Screening Levels for Industrial Soil (mg/kg)	Number of Detections above EPA Regional Protection of Groundwater Soil Screening Levels (mg/kg)	Concentration above EPA (mg/kg)
VOCs					
Benzene	5	0.00023	0	1	2
Ethylbenzene	25	0.0017	0	1	22
Methylcyclohexane	410	0.44	0	1	16
m/p-Xylene	2,400	0.19	0	1	83
o-Xylene	2,800	0.19	0	1	35
Toluene	47,000	0.76	0	1	4.3
SVOCs					
1,1'-Biphenyl	200	0.0087	0	1	1.2 F1
2-Methylnaphthalene	3,000	0.19	0	1	5.6 F1
Naphthalene	8.6	0.00038	0	1	4.0 F1
Metals					
Antimony	470	0.27	0	5	0.31 J–0.77 J
Arsenic	3	0.0015	7	9	2.9–23.7
Barium	220,000	82	0	3	109–260
Cobalt	350	0.27	0	9	1.8–8.3
Iron	820,000	350	0	9	1,600–17,900
Lead	800	14	0	1	52.3
Vanadium	5,800	86	0	1	99.2

mg/kg = milligrams per kilogram

3.12.3 Ponce Project

The municipality of Ponce is in the geomorphological region known as the Southern Coastal Plains Province. Alluvial soils in arid and semi-arid areas are present. According to USDA-NRCS, soils in the project area have been classified as Jacaguas silty clay loam (Jg) in 97 percent of the area and Cuyon loam soils (CyB) in 3 percent of the area. These consist of dark brown, friable granular loam horizons over a mixture of medium-coarse and coarse sand and gravel of varying proportions (Figure 29). The soils are found on nearly level or gently sloping alluvial plains near stream channels in the coastal plains of southern Puerto Rico. Slopes range from 0 to 5 percent. The soils formed in moderately fine-textured stratified sediments derived from limestone and volcanic rocks.

DOE completed FPPA coordination with USDA-NRCS for the Ponce Project to assess potential impacts on Prime Farmland. The project would not convert any Prime or Unique Farmland. The site received a land evaluation score of 77 and site assessment score of 35, resulting in a combined score of 112. Because of the absence of Prime Farmland at the site for the Ponce Project, the project's impact on soils or Prime Farmlands would not be significant.

3.12.4 Caguas Project

The Caguas Valley, which runs from Caguas to Juncos, was formed by alluvial deposits from the Holocene period. These lie on hardened rock of volcanic origin, lava, or intrusive and metamorphic rocks that date from the Late Cretaceous to Tertiary period. There are also small limestone deposits. The existing geological formation in the project area and adjacent areas is known as the Terrace Deposits (Qt) formation, which is composed of poorly consolidated to unconsolidated clay. It is found in most of the Caguas Valley, particularly near high areas (Figure 40).

According to USDA-NRCS and the PRPB Geographic Information System Database, soils in the area have been classified as Mabi clay soils (MaB) with 2 to 5 percent slopes over 88 percent of the project area and the Urban Land Complex-Vega Alta (Uv) over 12 percent of the project area (Figure 41).

The Mabi association is made up of highly fertile alluvium, although with poor drainage characteristics. Its slopes fluctuate from 0 to 5 percent. These soils are deep, extremely clayey, and highly expandable. They are also acidic to moderately alkaline, often exhibiting slow permeability, high water retention capacity, and slow runoff. Such characteristics facilitated their use for the cultivation of sugar cane for a long time. These soils are difficult to work because of the plasticity and stickiness of the clay; however, despite the limitations inherent in these types of soils for the construction of buildings, urbanization has covered a substantial part of the land where they are found. Meanwhile, agriculture has virtually disappeared in the Caguas Valley.

FPPA coordination with USDA-NRCS, using the AD1006 form, indicates that the Caguas Project would convert 5.6 acres of Prime or Unique Farmland, or 0.0069 percent of the total in the local government jurisdiction. The site received a land evaluation score of 78 and a site assessment of 16, for a total score of 94. Because the site is a mowed lot adjacent to an existing electrical substation and an active commercial vehicle parking lot and situated between two major roadways, the Caguas Project's impacts on soils or Prime Farmlands would not be significant.

3.13 Cumulative Impacts

Cumulative impacts would be potential effects on the environment from the incremental impact of the four projects when added to other past, present, and reasonably foreseeable future actions undertaken by other agencies (federal or nonfederal) or persons (40 CFR Part 1508.1[g]). No other projects were identified after a review of current and reasonably foreseeable future projects in the region; the review used the PRPB Interactive Planning Map Tool (PRPB 2024).

Other DOE projects in Puerto Rico, including those undergoing active NEPA review by LPO, are included in this cumulative effects analysis (see Figure 53):

- Two developments by AES Corporation: A 120 MW solar PV facility and 100 MW BESS on 318 acres (327.84 cuerdas) of property owned by the Puerto Rican Industrial Development Company on PR-7707 and PR-3 (Barrio Jobos, Guayama, Puerto Rico 00784) and a 240 MW solar PV facility between highways PR-53 (to the north), PR-3 (to the south), PR-713 (to the east), and PR-706 (to the west) in the municipalities of Salinas and Guayama
- A 32.1 MW solar PV facility and 17 MW BESS in Yabucoa to be developed by Infinigen Yabucoa on 183 acres (188.66 cuerdas) located east of PR-53 on both sides of PR-9914 and adjacent to an existing petrochemical storage facility in the municipality of Yabucoa
- A 65 MW solar PV and 25 MW BESS on 177 acres in the Lapa Ward of Salinas and 65 MW solar PV and 25 MW BESS on 132 acres in the Machete Ward of Guayama, to be developed by the Ciro Energy Group (not including the existing Ciro One facility)
- Programa Acceso de Solar: This program opened on February 22, 2024, to support the installation of residential rooftop solar and battery energy storage on 30,000 households throughout Puerto Rico for zero upfront costs⁵
- Project Hestia – LPO portfolio loan guarantee to Sunnova Corporation to build residential rooftop solar with a focus on Puerto Rico

Programa Acceso de Solar and Project Hestia residential rooftop sites are located throughout Puerto Rico. Refer to Figure 53 for the approximate location of the other utility-scale solar and battery storage projects under DOE NEPA review.

The review focused on the resources that may be subject to a cumulative impact and affected by both the proposed project and other projects in the region. Based on this review, the following resources were evaluated for cumulative impacts:

- Air quality and climate change
- Soils and prime farmland
- Land Use
- Socioeconomics and environmental justice

The proposed project, when considered together with identified projects in the region, would not have the potential to result in significant cumulative impacts on other resources because of the geographic location and separation of the projects, the disturbed nature of the project sites, and/or the lack of construction or operational overlap that would result.

3.13.1 Air Quality and Climate Change

The main sources of emissions from the projects would be present during construction when electrical generators, heavy machinery for earthmoving activities, and construction-related vehicles and equipment would be used. Emissions from this equipment would be temporary and regulated as mobile sources (e.g., vehicles). Emergency generators and other equipment would be considered insignificant (i.e., de minimis) sources under current regulations. Their emissions would be minimized with the use of BMPs. Under federal and state laws, vehicles control their emissions through devices such as catalytic converters in their exhaust systems.

⁵ Available: <https://www.energy.gov/gdo/puerto-rico-grid-recovery-and-modernization>.

No atmospheric emission sources are proposed that would be part of the facility's normal operations. The only sources of emissions associated with operation are the emergency generators that would be used if PREPA is unable to provide electrical service. The generation of PV energy from the Coamo Project would result in a net saving with respect to the emission of atmospheric pollutants compared to the generation of electrical energy with non-renewable sources such as oil, coal, and natural gas.

With respect to cumulative impacts on regional air quality, air quality in the area would not be affected during operation of the facilities, given the nature of the projects. On the other hand, emissions of primary pollutants that would be avoided (i.e., nitrogen oxides, CO₂, particulates, sulfur oxides), given the generation of 100 MW of renewable energy from the Coamo Project compared to generation that relies on ultra-low-sulfur diesel in turbines, would improve health conditions for the population that is currently affected by these emissions.

LPO evaluates the technical eligibility of each loan guarantee application. This includes an analysis of GHG emissions associated with a project. For the projects currently under NEPA review by LPO, it was determined that the projects would result in reductions in GHG emissions. Existing fossil-fuel generation would be replaced as part of eligibility for a loan guarantee under the EIR program.

Convergent would avoid 360 kilotons of CO₂ emissions; an additional 63 MW of energy from fossil-fuel generation would be replaced by project energy storage components. The AES solar project would avoid approximately 372 kilotons of CO₂ annually. The Yabucoa solar project would avoid 76 kilotons of CO₂ annually. Together, these projects would reduce CO₂ emissions by 808 kilotons annually while producing electricity that would have otherwise been generated by fossil-fuel resources, thereby contributing to Puerto Rico's goal of producing 100 percent of its power from renewable energy by 2050.

3.13.1.1 Coamo Project

The Coamo Project would provide emissions-free electricity from solar energy while reducing the reliance on GHG-emitting fossil fuels. Although the Coamo Project may have temporary impacts on air quality during the construction phase, and from the use of the emergency generator, normal operations would aid efforts to reduce GHG emissions and their contribution to climate change in Puerto Rico. Because of the increasing severity of storms as a result of climate change, the PV system at Coamo would be designed to withstand winds of up to 164 mph, or Category 5 on the Saffir-Simpson Hurricane Wind Scale.

3.13.1.2 BESS Projects (Ponce, Peñuelas, and Caguas)

Cumulatively, the three BESS projects (Ponce, Peñuelas, and Caguas) may have temporary impacts on air quality during the construction phase, but they would also have a long-term benefit by reducing the reliance on fossil fuels and subsequently aiding in reductions in GHG emissions in Puerto Rico.

By avoiding air pollution associated with fossil-fuel generation and reducing GHG emissions that contribute to climate change, the cumulative impact of the project would be beneficial. There would be no significant negative cumulative impacts.

3.13.2 Soils and Prime Farmland

3.13.2.1 Coamo Project

As described in Section 3.12, the land that would be used for PV energy generation has historically been used for agricultural activities. As described in Section 3.12, according to the land use plan, soils in the project areas for the BESS projects are classified as Urban Land. Including the four Convergent sites, the projects under active NEPA review represent the conversion of approximately 1,722 acres of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, or 0.3 percent of the total acreage of such soils in Puerto Rico. The area of farmland soil conversion from the projects under active NEPA

review is shown in Table 6 by municipality. LPO notes that Programa Acceso de Solar and Project Hestia affect only existing buildings and would not affect Prime Farmland.

In order to receive LPO financing, all projects must acquire local permits and have permission to build and operate their projects. This process involves permitting from Puerto Rican regulatory authorities pursuant to all local laws and regulations, including those pertaining to land use changes. The Puerto Rico Department of Agriculture issued a letter of no objection to the Coamo Project on January 24, 2024 (Puerto Rico Department of Economic Development and Commerce 2024g). Puerto Rican authorities have determined that the proposed projects would be consistent with the laws of the territory. Furthermore, the FPPA does not infringe on the rights of private property owners in any way.

Table 6: Farmland Soil Conversion from DOE LPO Projects by Municipality

Municipality	Acres of Conversion	Percent of Total Acres of Farmland by Municipality
Caguas	6	0.05%
Coamo	541	4.42%
Guayama	726	5.84%
Ponce	12	0.08%
Salinas	245	0.95%
Santa Isabel	12	0.08%
Yabucoa	181	1.40%

Note: Includes soils classified as Prime Farmland and Farmland of Statewide Importance, based on USDA-NRCS Web Soil Survey data (USDA-NRCS 2022). Acres of conversion are based on current project designs under DOE LPO NEPA review (Jobos, Salinas, Convergent Energy, Ciro Energy, Infinigen Yabucoa) as of July 2024 and subject to change.

Because the projects would be constructed and operated consistent with the applicable laws and regulations of Puerto Rico and in full compliance with its environmental review processes, with the change from agricultural zoning to solar PV generation, the project would not have negative cumulative impacts on soils and prime farmland.

3.13.3 Land Use

Any proposed solar and storage project involving more than 1 MW, including the proposed project analyzed in this EA and the other projects analyzed for cumulative impacts, must complete the Land Use Consultation process. The Applicant is required to complete the Land Use Consultation process for Coamo and Caguas, which occurs after DEA approval. The DEA for Coamo was filed on July 5, 2024, and the DEA for Caguas was approved on June 17, 2024. For the Peñuelas and Ponce BESS sites, there would be no change in land use because the sites would continue to support heavy industrial uses.

The impacts from changing current land uses to solar PV generation and energy storage are not expected to be cumulatively significant because they would be undertaken in the context of Puerto Rico's efforts to rebuild its electricity grid after multiple natural disasters over the past 10 years. In accordance with Act 17, the Commonwealth is moving toward 100 percent renewable power generation. The solar PV and BESS Tranche 1 projects being analyzed by LPO under NEPA must be consistent with Puerto Rico land use and zoning requirements in order to be constructed, operated, and financed by LPO. Because land use decisions, including decisions regarding the development of solar PV generation and energy storage projects greater than 1 MW, must be explicitly approved by agencies and municipalities within Puerto Rico, as would the federal action pertaining to the potential loan guarantee, with the required

permits and approvals, including the Land Use Consultation process, there would be no significant negative cumulative effects on land use.

3.13.4 Socioeconomic and Environmental Justice

As described in Section 3.9.1, construction and operation of the four projects would result in an increase in employment from the temporary construction workers; the projects would also result in long-term employment. The increase in short-term and long-term jobs from the four projects, combined with other projects undergoing NEPA review in the region, would result in a beneficial socioeconomic impact with respect to employment, income, and tax revenue.

The PV and BESS projects, which are undergoing active NEPA review by LPO, are expected to create 350 temporary jobs during the construction phase and two permanent jobs during operation. Significant cumulative impacts on existing infrastructure and services (e.g., roads, schools, fire departments, police departments) are not anticipated because population migration to the area is not anticipated.

Other positive socioeconomic effects of the proposed projects, as well as similar projects, include reducing dependence on fossil fuels for energy generation, which would contribute to a reduction in the uncertainty associated with importing fossil fuels from third-world countries; avoiding fluctuations in the cost of electricity; increasing system reliability; and improving the sustainability and self-sufficiency of the island. The production of energy from renewable sources under LPO's EIR program would replace the existing production of fossil-fuel energy. The projects would not represent an additional, disproportionate, or excessive burden on communities in the area. In contrast, the development of renewable energy sources would result in environmental and human health benefits by replacing fossil-fuel energy sources and reducing the emissions of pollutants and GHGs. The displacement of these sources of pollution through the shift to renewable energy would fulfill the central objective of environmental justice (i.e., to reduce environmental pollution sources). In addition, it would contribute to reducing the effects of climate change, which disproportionately affect disadvantaged communities. In conclusion, the projects are expected to provide local benefits with respect to environmental justice.

4.0 FINDING

Based on this EA, DOE has determined that providing a federal loan guarantee to Convergent for construction and operation of a 100 MW PV energy generation farm and a storage facility with approximately 55 MW of electrical capacity from a battery system in Coamo and Santa Isabel, Puerto Rico; the construction and operation of a 100 MW BESS facility in Peñuelas, Puerto Rico; a 25 MW BESS facility in Ponce, Puerto Rico; and a 25 MW BESS facility in Caguas, Puerto Rico, would not have a significant effect on the human environment. Preparation of an environmental impact statement is therefore not required. DOE is issuing this Finding of No Significant Impact.

This Finding of No Significant Impact should not be construed as a final decision about issuance of a loan guarantee.

Todd Stribley
NEPA Compliance Officer
DOE Loan Programs Office

10/28/2024
Date

5.0 LIST OF AGENCIES CONTACTED

Institute of Puerto Rican Culture

Municipality of Coamo

Municipality of Santa Isabel

Municipality of Caguas

Municipality of Ponce

Municipality of Peñuelas

Puerto Rico Permit Management Office

Puerto Rico Aqueduct and Sewer Authority

Puerto Rico Highways and Transportation Authority

Puerto Rico Electric Power Authority/LUMA Energy

Puerto Rico Department of Agriculture

Puerto Rico Department of Economic Development and Commerce

Puerto Rico Department of Natural and Environmental Resources

Puerto Rico State Historic Preservation Office

Puerto Rico Planning Board

Puerto Rico Public-Private Partnerships Authority

U.S. Environmental Protection Agency

U.S. Fish and Wildlife Service

U.S.D.A. Natural Resource Conservation Service

6.0 LIST OF PREPARERS

6.1 DOE

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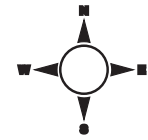
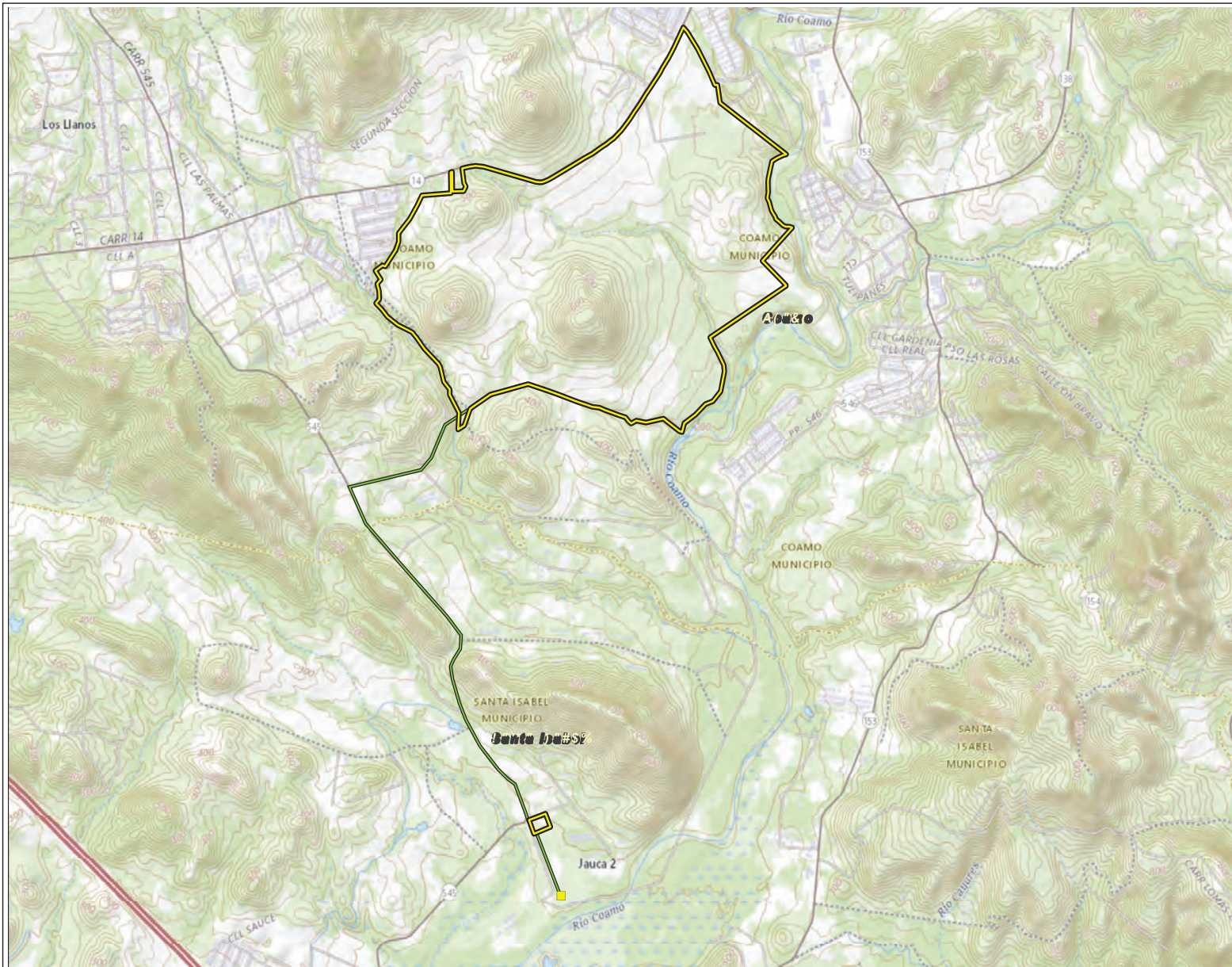
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FIGURES

Figure 1: Coamo Project Site Topographic . ap






Scale: 1:20,000



X: 205,550.865 m
Y: 224,427.811 m

Coordinate Reference System:
World Geodetic System 1984 ensemble
(WGS 84 3D)

Legend:

-  Interconnection Point
115 kV Line
-  115 kV Transmission Line
-  Approximate Limit of Project Parcel

Reference:

U.S. Geological Survey, Rio Descalabrado and Coamo
Topographic Quadrangles, 20-Foot Contour Elevations,
7.5-Minute Series, 2018

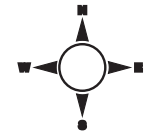
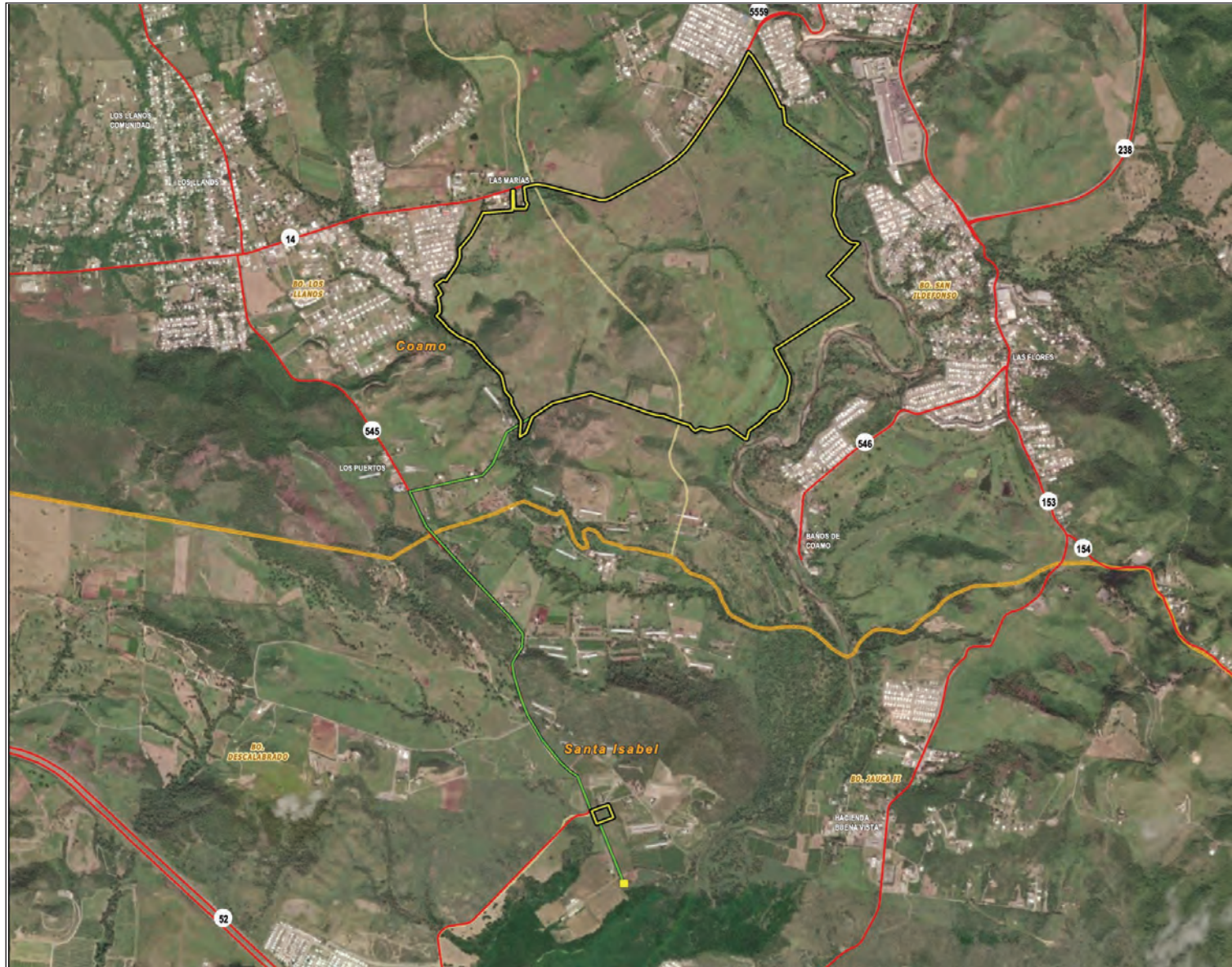
Source:

USGS TopoView
https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=f5b93364079770d87a36f1638f2bcb

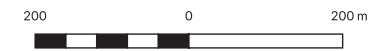


FIGURE 1: PROJECT SITE TOPOGRAPHIC MAP
Convergent Coamo PV-BESS
Coamo-Santa Isabel, Puerto Rico

Figure 2: Coamo Project Site Aerial Photograph



Scale: 1:20,000



Coordinates:

X: 205,550.865 m
Y: 224,427.811 m

Coordinate Reference System:
World Geodetic System 1984 ensemble
(WGS 84 3D)

Legend:

-  Interconnection Point 115KV Line
-  Interconnection Line
-  Approximate Project Site
-  State Road
-  Municipal Boundary
-  Municipal Ward Limit

Source:

Puerto Rico Planning Board Interactive Planning Map
https://gis.jp.pr.gov/imipr/?_gl=1*56idva*_ga*ME0MDYyNDg1OC4xNk4MjYxNDg2*_ga_S4HG D1915F*MTY5ODg3MTE2NC4xLjAuMTY5ODg3MTE2NC4wLjAuMA*_ga_Z7MEG30P8C*MTY5ODg3MTE2NS4xLjAuMTY5ODg3MTE2N S4wLjAuMA.&_ga=2.76681877.1055391789.1698871165-21406248 58.1698261486



Figure 2: Project Site Aerial Photograph
 Convergent Coamo PV-BESS
 Coamo-Santa Isabel, Puerto Rico

Figure 3: Coamo Project Geologic Map

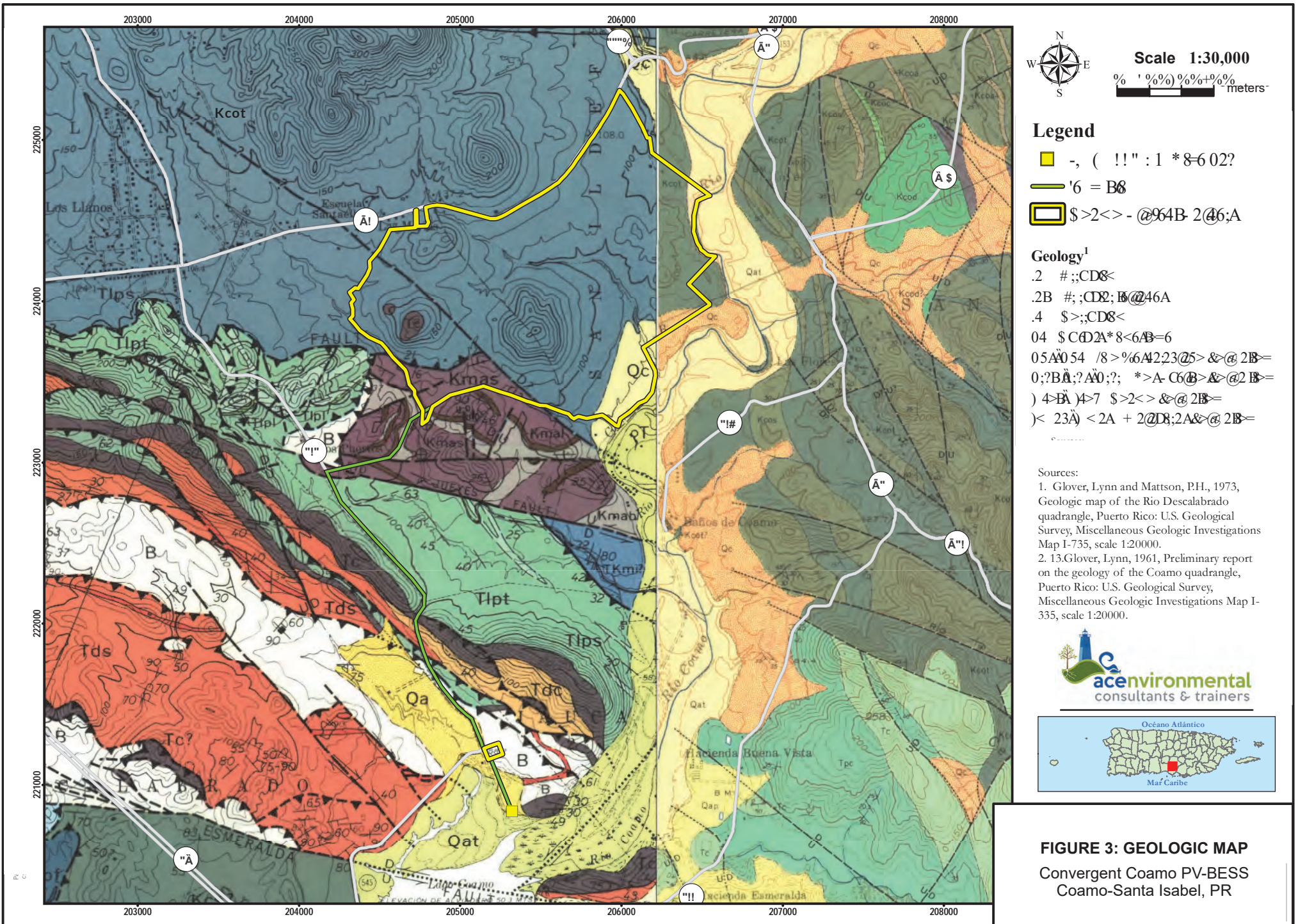


Figure 4: Coamo Project Groundwater Resources within a 400-meter Radius

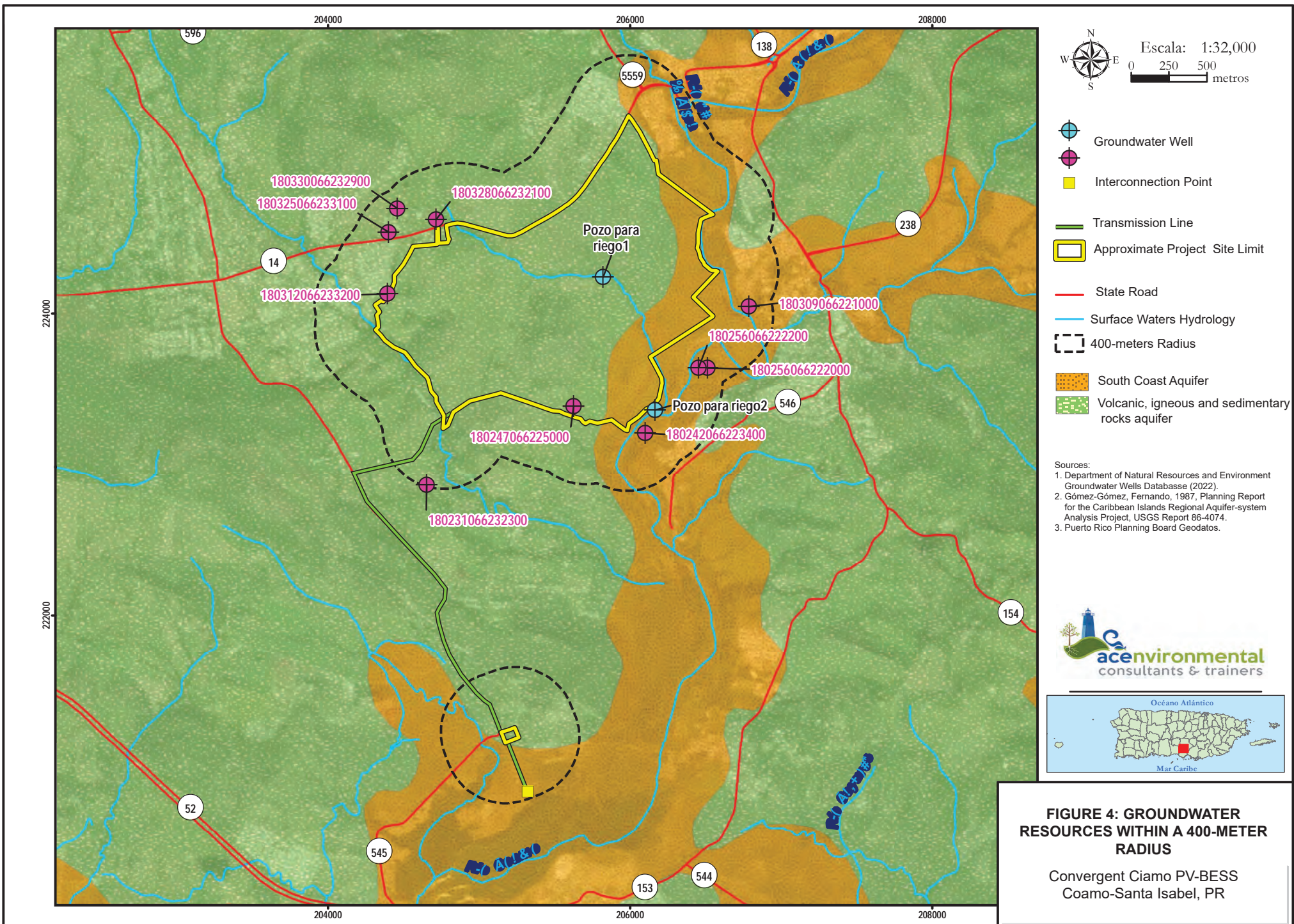


FIGURE 4: GROUNDWATER RESOURCES WITHIN A 400-METER RADIUS

Convergent Ciampo PV-BESS
Coamo-Santa Isabel, PR

Figure 5: Coamo Project Soils Map

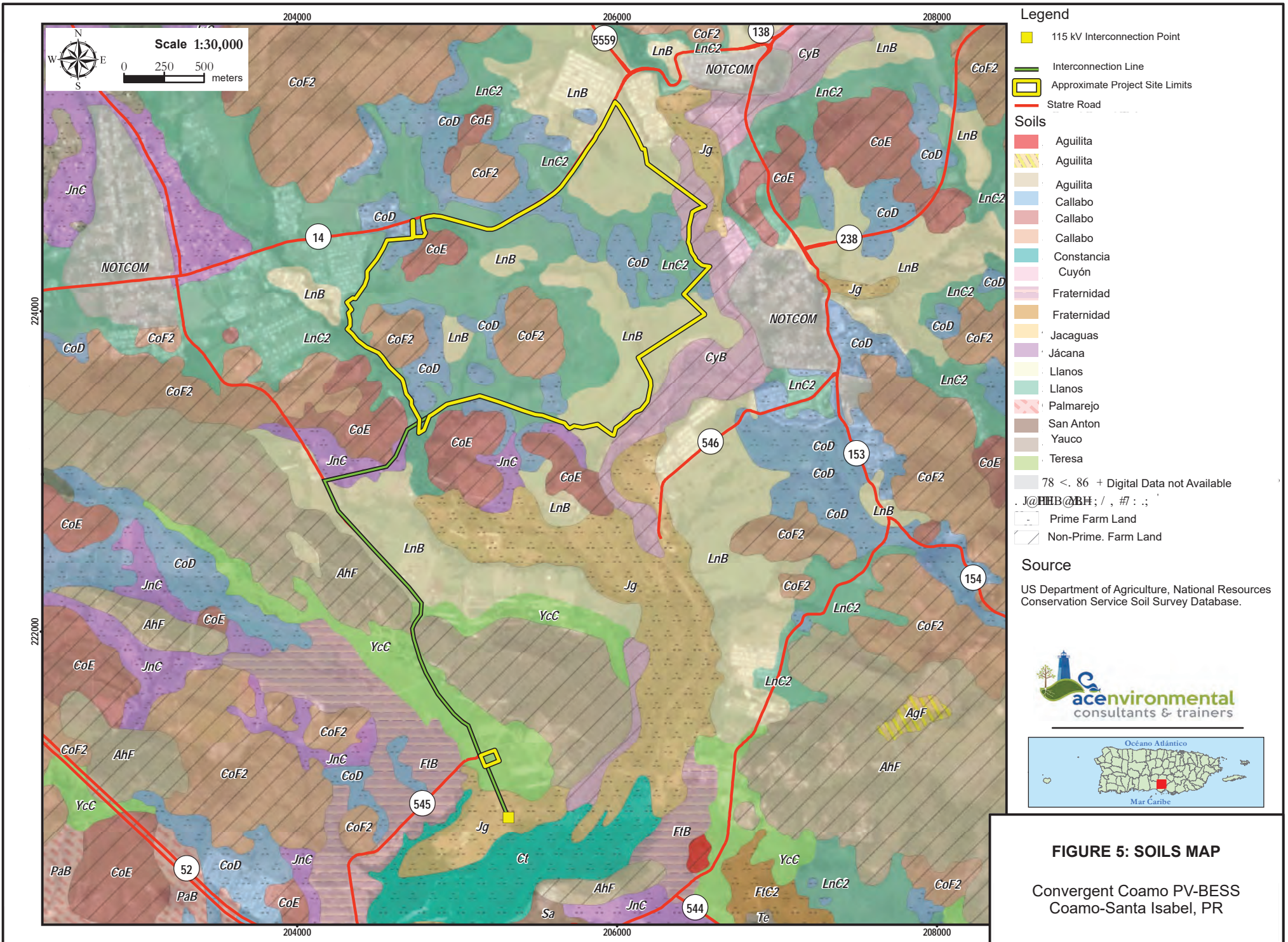
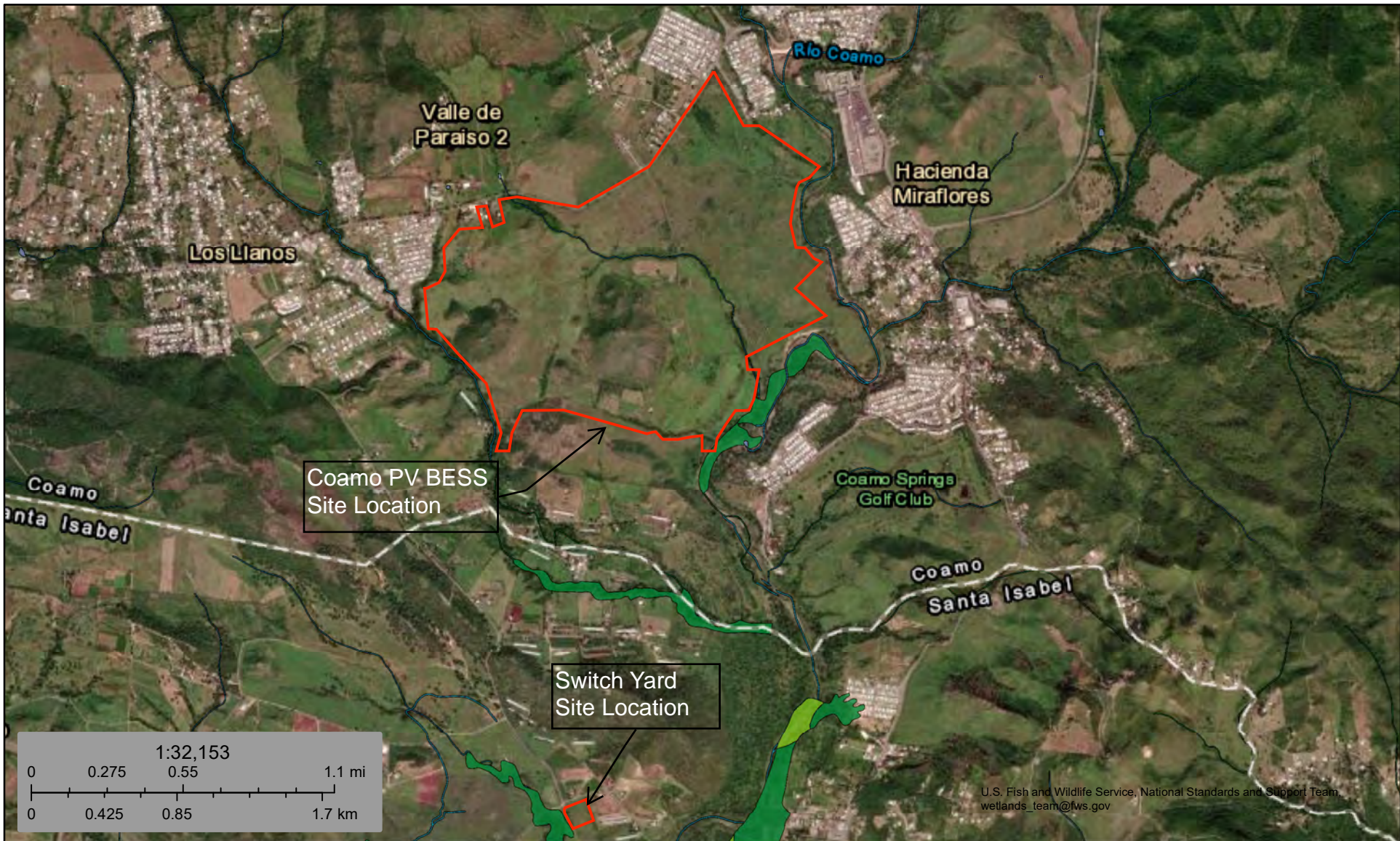









Figure 6: Coamo Project Wetlands



February 9, 2024

Wetlands

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

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Figure 7: Coamo Project Flood Zones (FEMA)

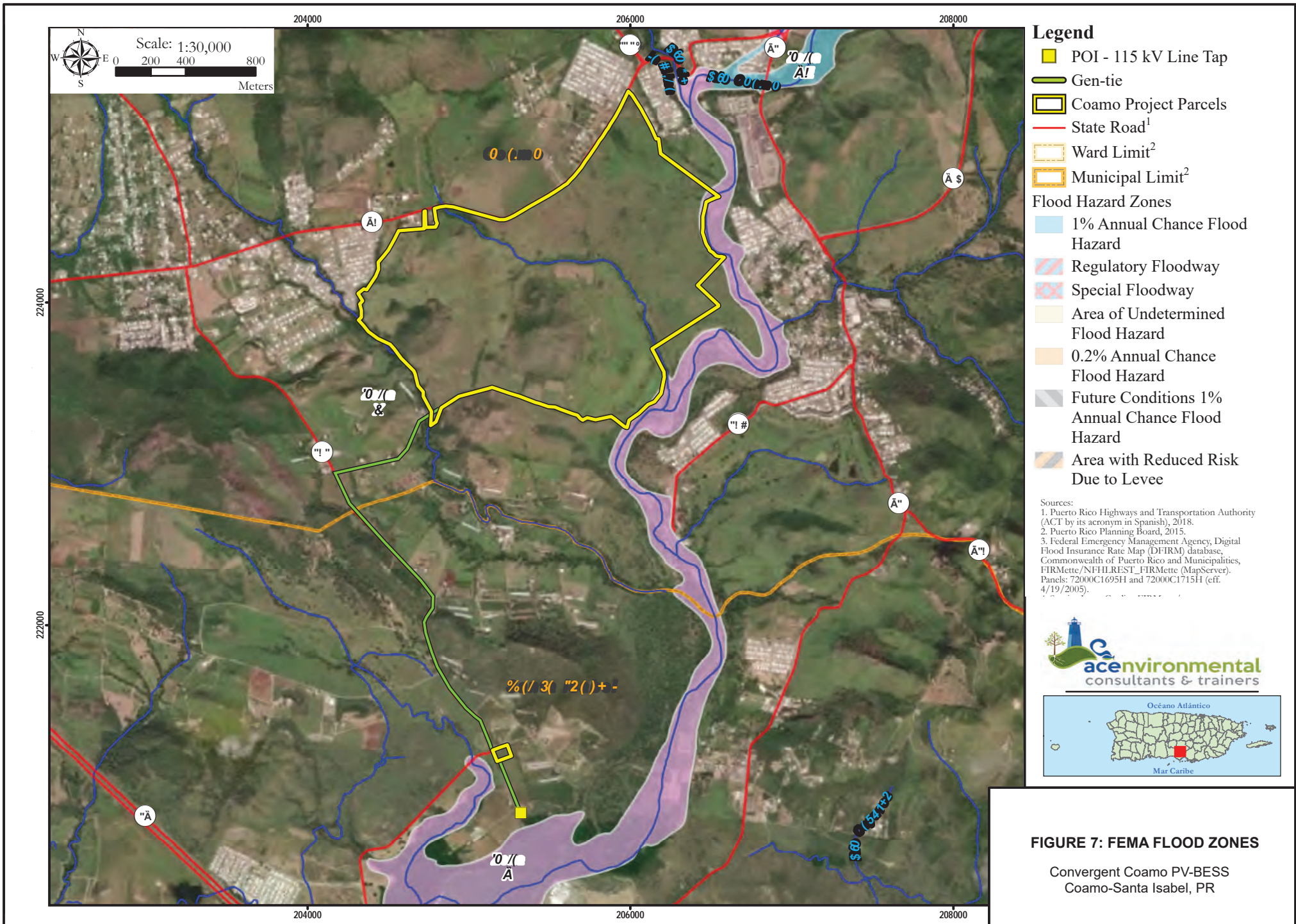


Figure 8: Zoning Map Coamo

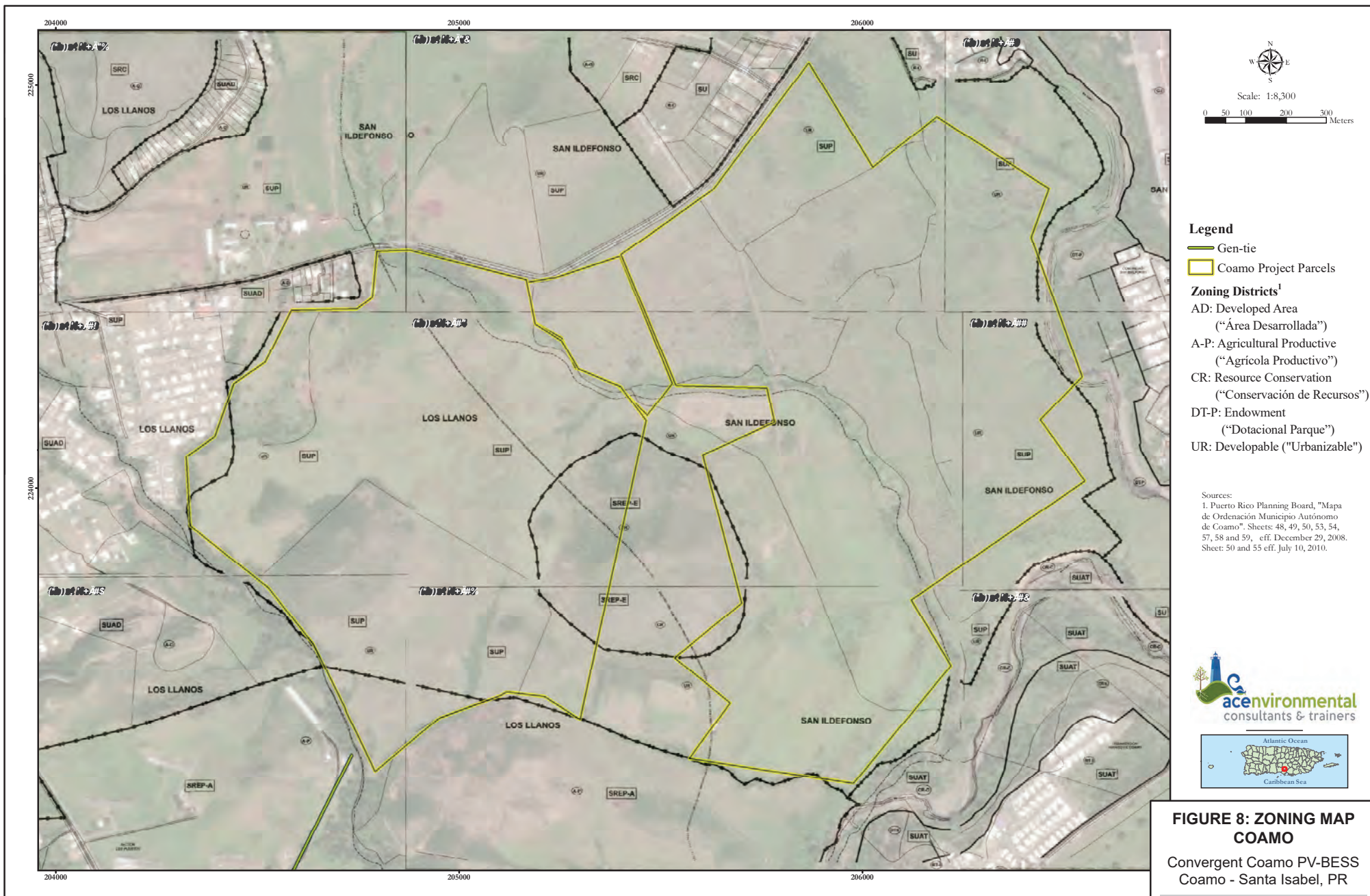


Figure 9: Zoning Map Santa Isabel

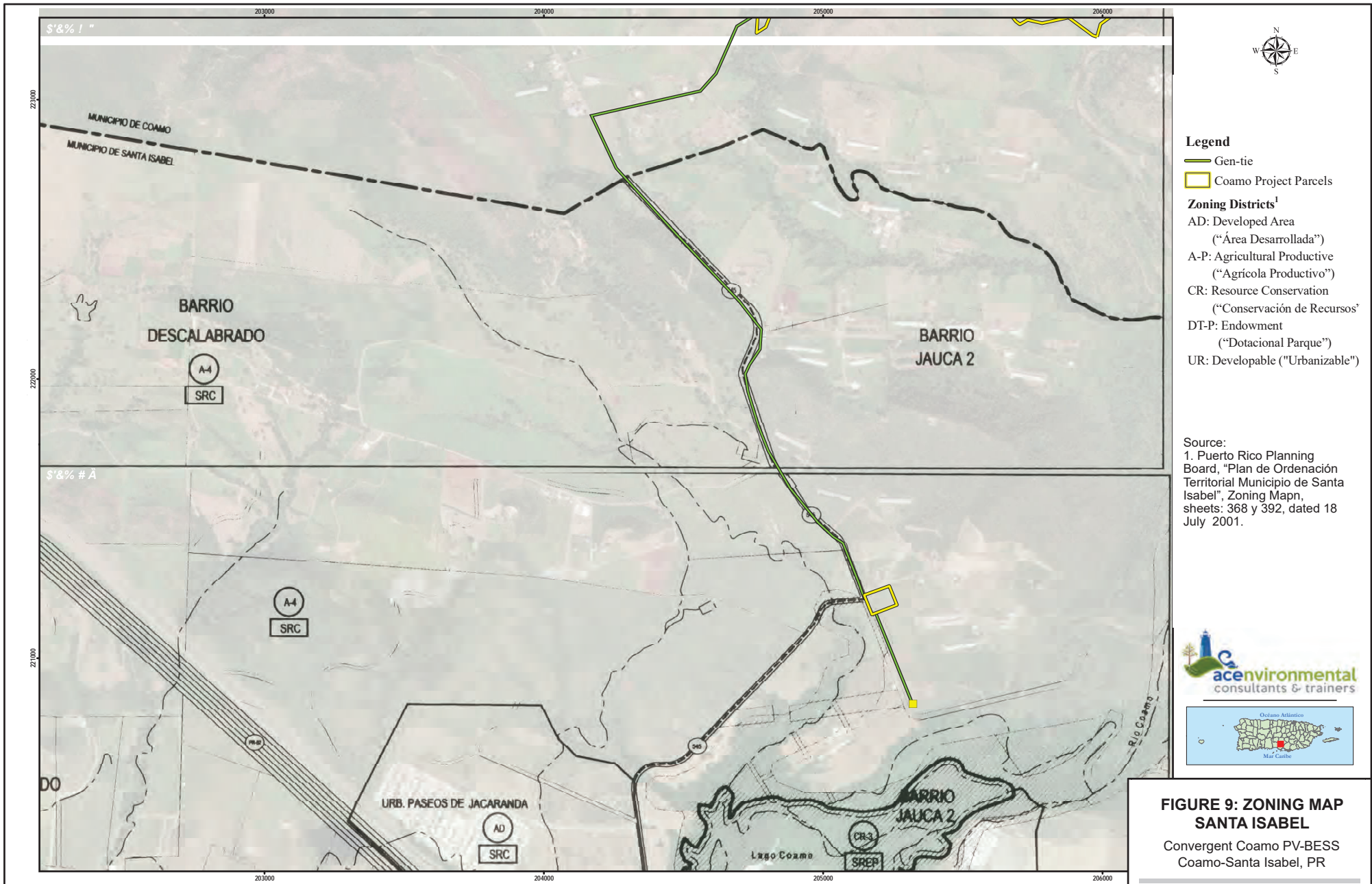


FIGURE 9: ZONING MAP SANTA ISABEL

Convergent Coamo PV-BESS
 Coamo-Santa Isabel, PR

Figure 10: Coamo Project Land Use Map

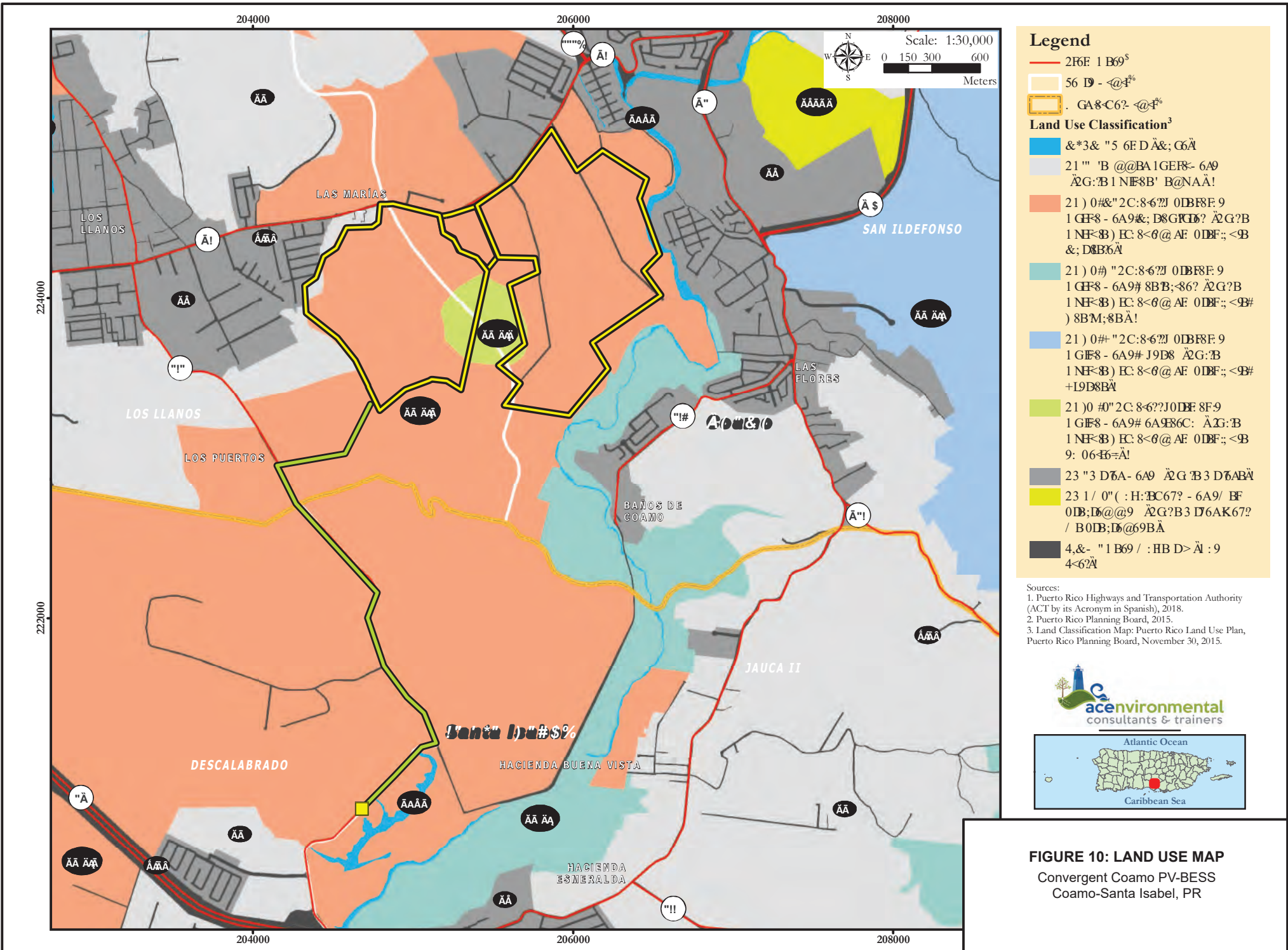


Figure 11: Coamo Project Noise Receptors Map

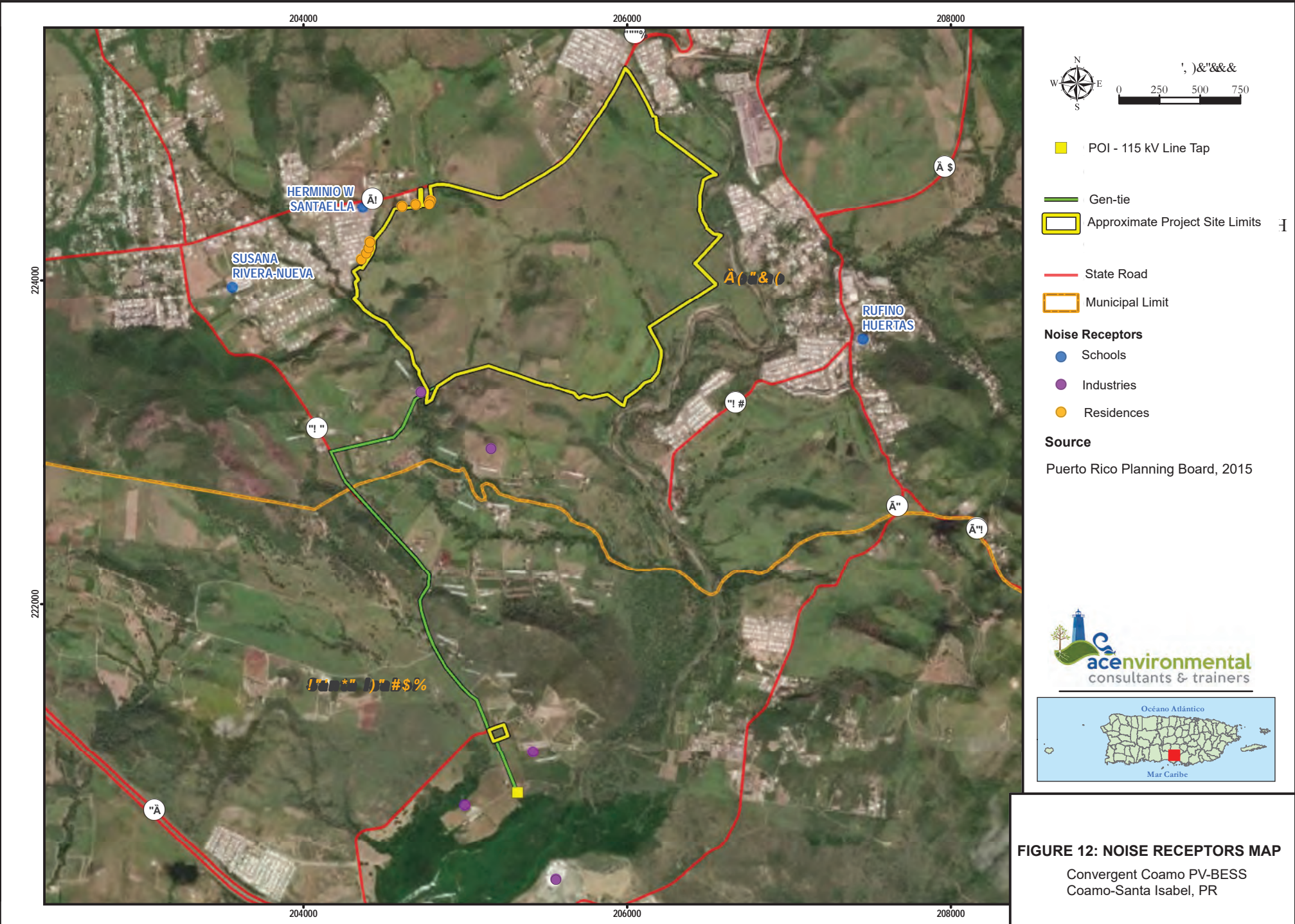


FIGURE 12: NOISE RECEPTORS MAP
 Convergent Coamo PV-BESS
 Coamo-Santa Isabel, PR

Figure 12: Coamo Project Existing Infrastructure (PRASA)

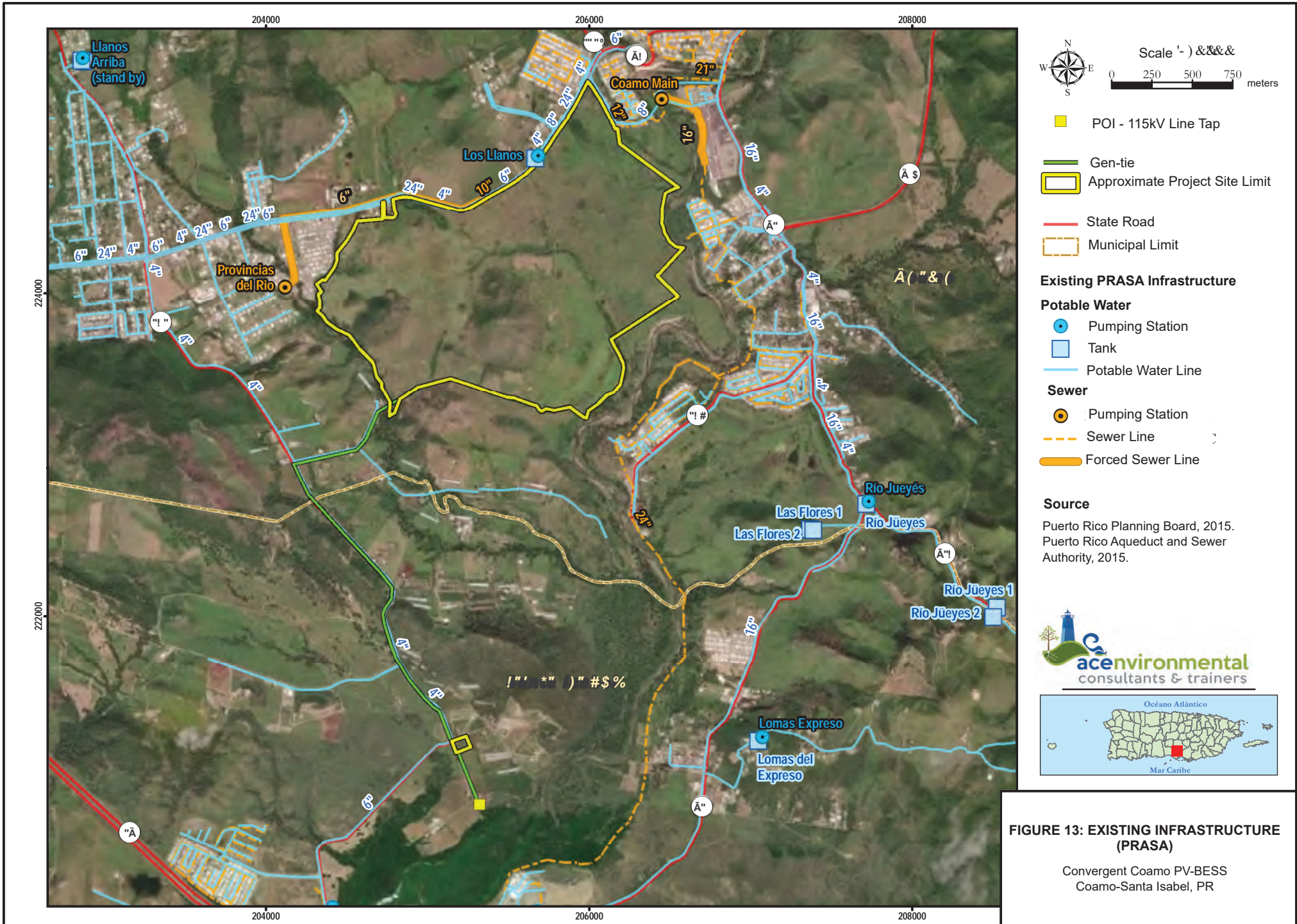


FIGURE 13: EXISTING INFRASTRUCTURE (PRASA)

Convergent Coamo PV-BESS
Coamo-Santa Isabel, PR

Figure 13: Coamo Project Existing Infrastructure (PREPA)

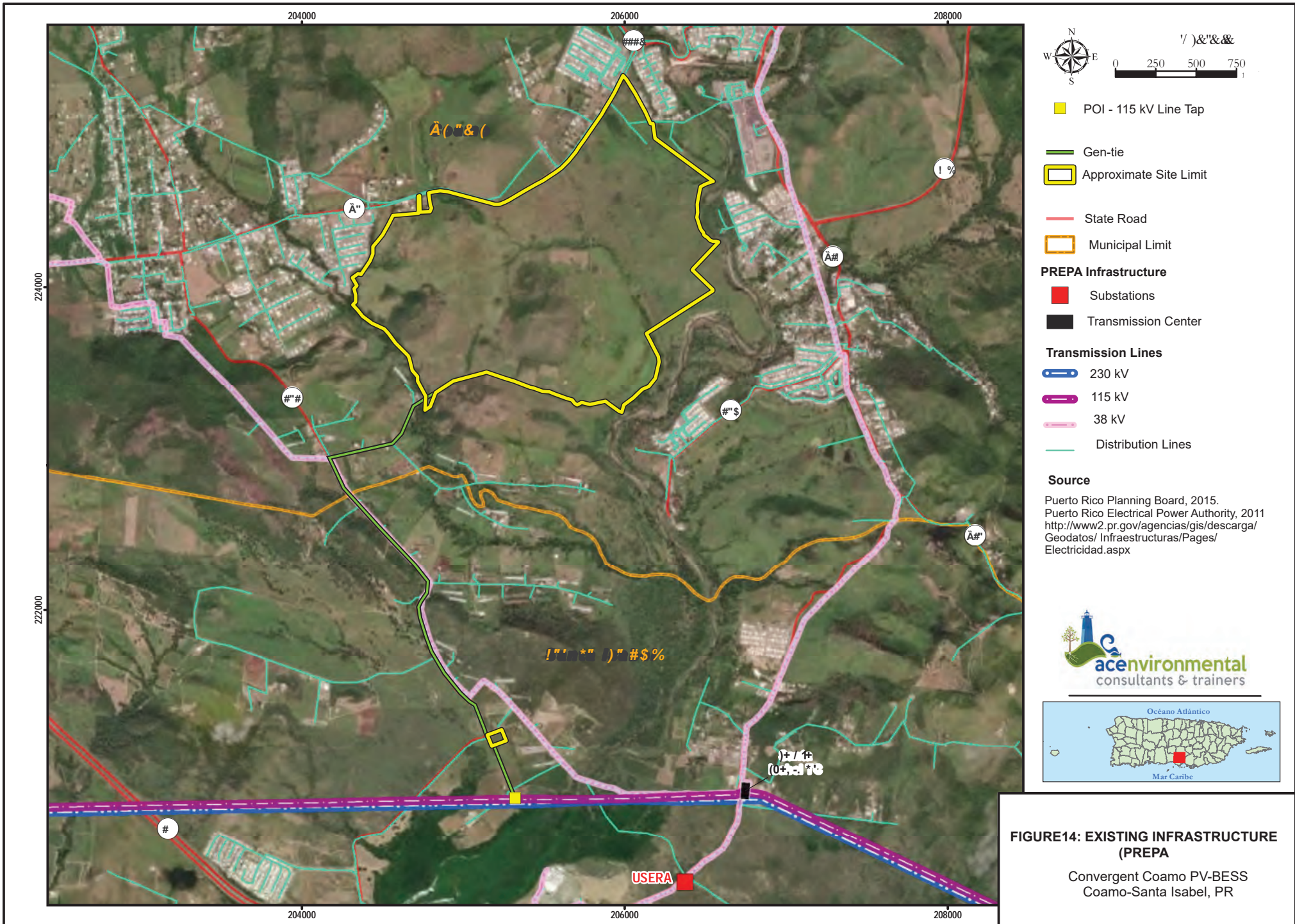
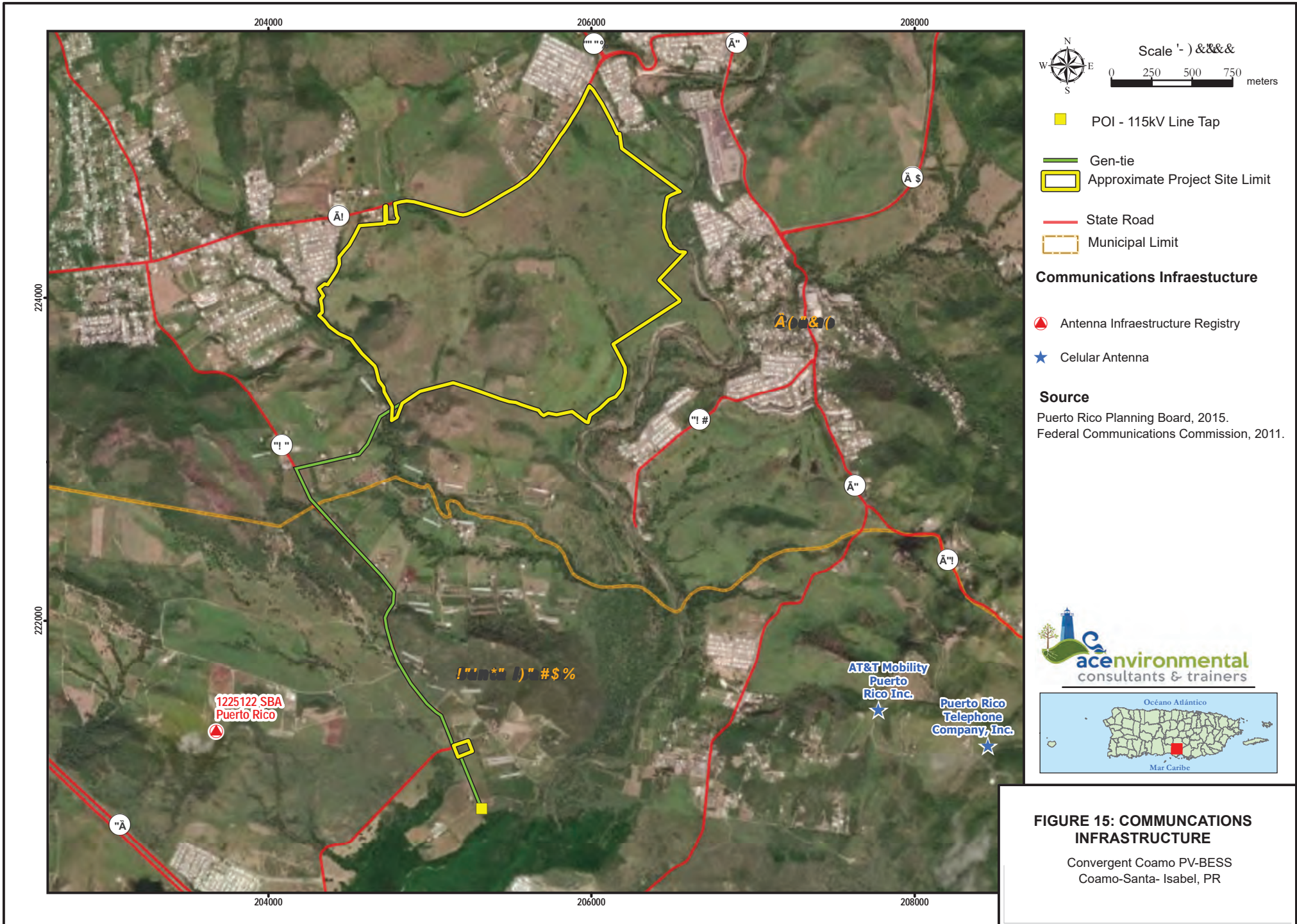
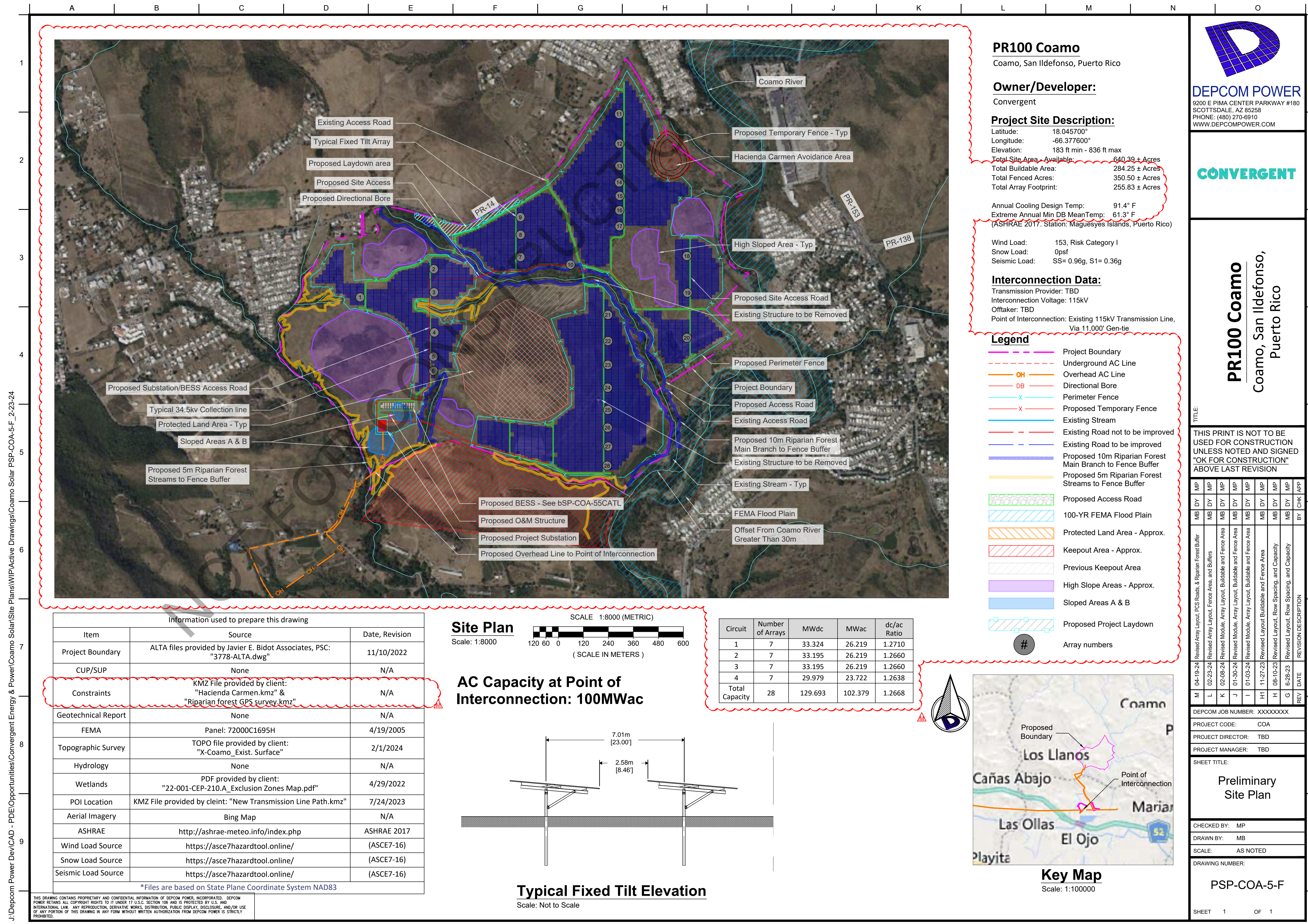


Figure 14: Coamo Project Communications Infrastructure





PR100 Coamo
Coamo, San Ildefonso, Puerto Rico

Owner/Developer:
Convergent

Project Site Description:
Latitude: 18.045700°
Longitude: -66.377600°
Elevation: 183 ft min - 836 ft max
Total Site Area - Available: 640.39 ± Acres
Total Buildable Area: 284.25 ± Acres
Total Fenced Acres: 350.50 ± Acres
Total Array Footprint: 255.83 ± Acres

Annual Cooling Design Temp: 91.4° F
Extreme Annual Min DB Mean Temp: 61.3° F
(ASHRAE 2017, Station: Maguayes Islands, Puerto Rico)

Wind Load: 153, Risk Category I
Snow Load: 0psf
Seismic Load: SS= 0.96g, S1= 0.36g

Interconnection Data:
Transmission Provider: TBD
Interconnection Voltage: 115kV
Offtaker: TBD
Point of Interconnection: Existing 115kV Transmission Line, Via 11,000' Gen-tie

- Legend**
- Project Boundary
 - Underground AC Line
 - Overhead AC Line
 - Directional Bore
 - Perimeter Fence
 - Proposed Temporary Fence
 - Existing Stream
 - Existing Road not to be improved
 - Existing Road to be improved
 - Proposed 10m Riparian Forest Main Branch to Fence Buffer
 - Proposed 5m Riparian Forest Streams to Fence Buffer
 - Proposed Access Road
 - 100-YR FEMA Flood Plain
 - Protected Land Area - Approx.
 - Keepout Area - Approx.
 - Previous Keepout Area
 - High Slope Areas - Approx.
 - Sloped Areas A & B
 - Proposed Project Laydown
 - Array numbers

DEPCOM POWER
3200 E PIMA CENTER PARKWAY #180
SCOTTSDALE, AZ 85258
PHONE: (480) 270-6910
WWW.DEPCOMPPOWER.COM

CONVERGENT

PR100 Coamo
Coamo, San Ildefonso,
Puerto Rico

THIS PRINT IS NOT TO BE USED FOR CONSTRUCTION UNLESS NOTED AND SIGNED "OK FOR CONSTRUCTION" ABOVE LAST REVISION

REV	DATE	DESCRIPTION	BY	CHK	APP
M	04-19-24	Revised Array Layout, FCS Roads, & Riparian Forest Buffer	MB	DY	MP
L	02-23-24	Revised Array Layout, Fence Area, and Buffers	MB	DY	MP
K	02-08-24	Revised Module, Array Layout, Buildable and Fence Area	MB	DY	MP
J	01-30-24	Revised Module, Array Layout, Buildable and Fence Area	MB	DY	MP
I	01-05-24	Revised Module, Array Layout, Buildable and Fence Area	MB	DY	MP
H	11-27-23	Revised Layout, Buildable and Fence Area	MB	DY	MP
G	08-10-23	Revised Layout, Row Spacing, and Capacity	MB	DY	MP
F	6-28-23	Revised Layout, Row Spacing, and Capacity	MB	DY	MP

DEPCOM JOB NUMBER: XXXXXXXX
PROJECT CODE: COA
PROJECT DIRECTOR: TBD
PROJECT MANAGER: TBD
SHEET TITLE:
Preliminary Site Plan

CHECKED BY: MP
DRAWN BY: MB
SCALE: AS NOTED
DRAWING NUMBER:

PSP-COA-5-F

SHEET 1 OF 1

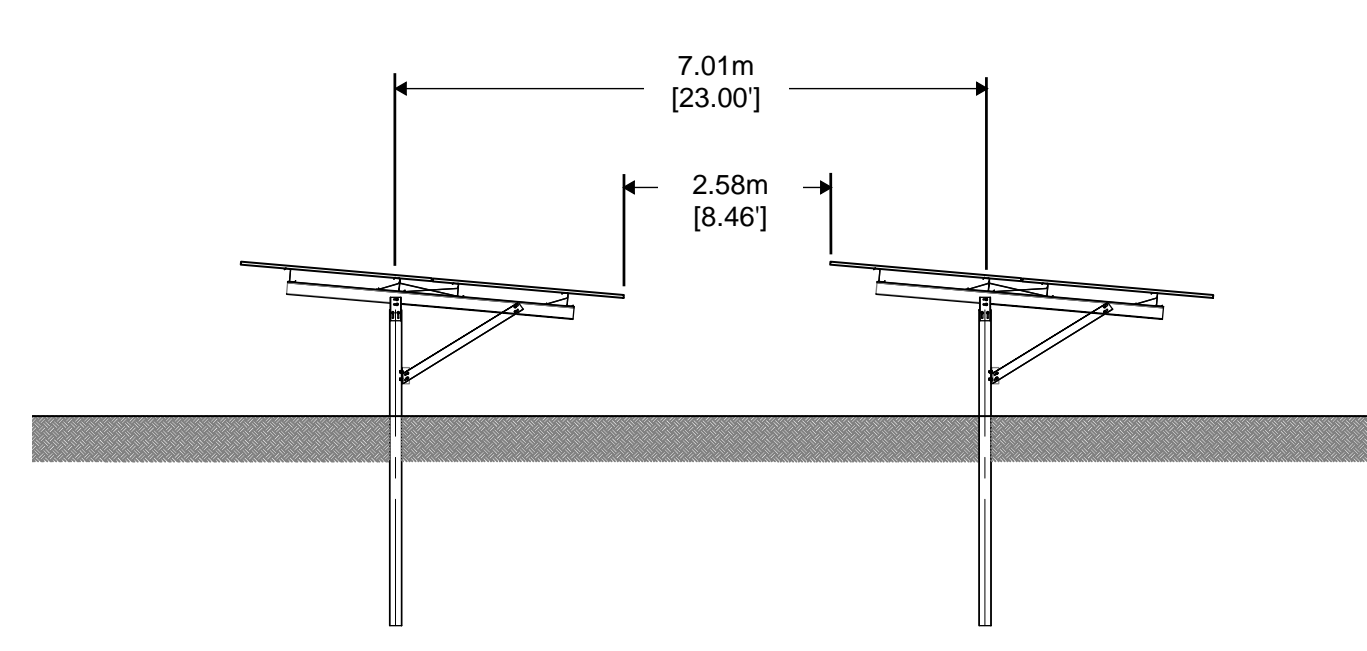
J:\Depcom Power Dev\CAD - PDE\Opportunities\Convergent Energy & Power\Coamo Solar\Site Plans\WIP\Active Drawings\Coamo Solar PSP-COA-5-F_2-23-24

Information used to prepare this drawing		
Item	Source	Date, Revision
Project Boundary	ALTA files provided by Javier E. Bidot Associates, PSC: "3778-ALTA.dwg"	11/10/2022
CUP/SUP	None	N/A
Constraints	KMZ File provided by client: "Hacienda Carmen.kmz" & "Riparian forest GPS survey.kmz"	N/A
Geotechnical Report	None	N/A
FEMA	Panel: 72000C1695H	4/19/2005
Topographic Survey	TOPO file provided by client: "X-Coamo_Exist_Surface"	2/1/2024
Hydrology	None	N/A
Wetlands	PDF provided by client: "22-001-CEP-210.A_Exclusion_Zones_Map.pdf"	4/29/2022
POI Location	KMZ File provided by client: "New Transmission Line Path.kmz"	7/24/2023
Aerial Imagery	Bing Map	N/A
ASHRAE	http://ashrae-meteo.info/index.php	ASHRAE 2017
Wind Load Source	https://asce7hazardtool.online/	(ASCE7-16)
Snow Load Source	https://asce7hazardtool.online/	(ASCE7-16)
Seismic Load Source	https://asce7hazardtool.online/	(ASCE7-16)

*Files are based on State Plane Coordinate System NAD83

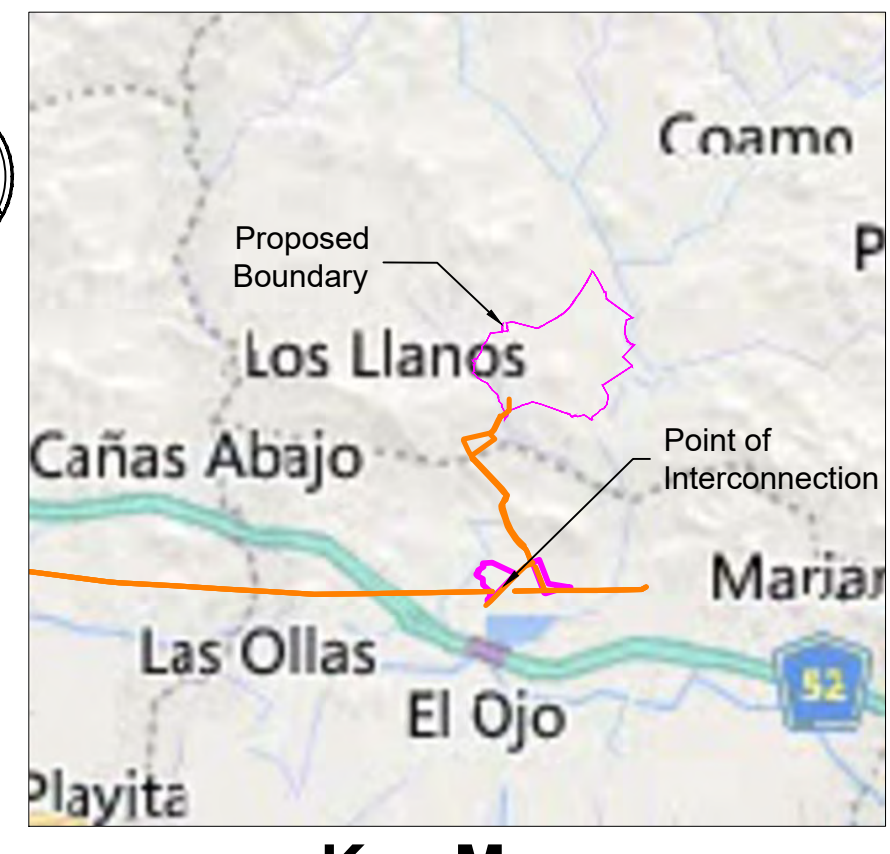
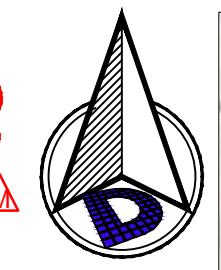
Site Plan
Scale: 1:8000
SCALE 1:8000 (METRIC)
120 60 120 240 360 480 600
(SCALE IN METERS)

AC Capacity at Point of Interconnection: 100MWac



Typical Fixed Tilt Elevation
Scale: Not to Scale

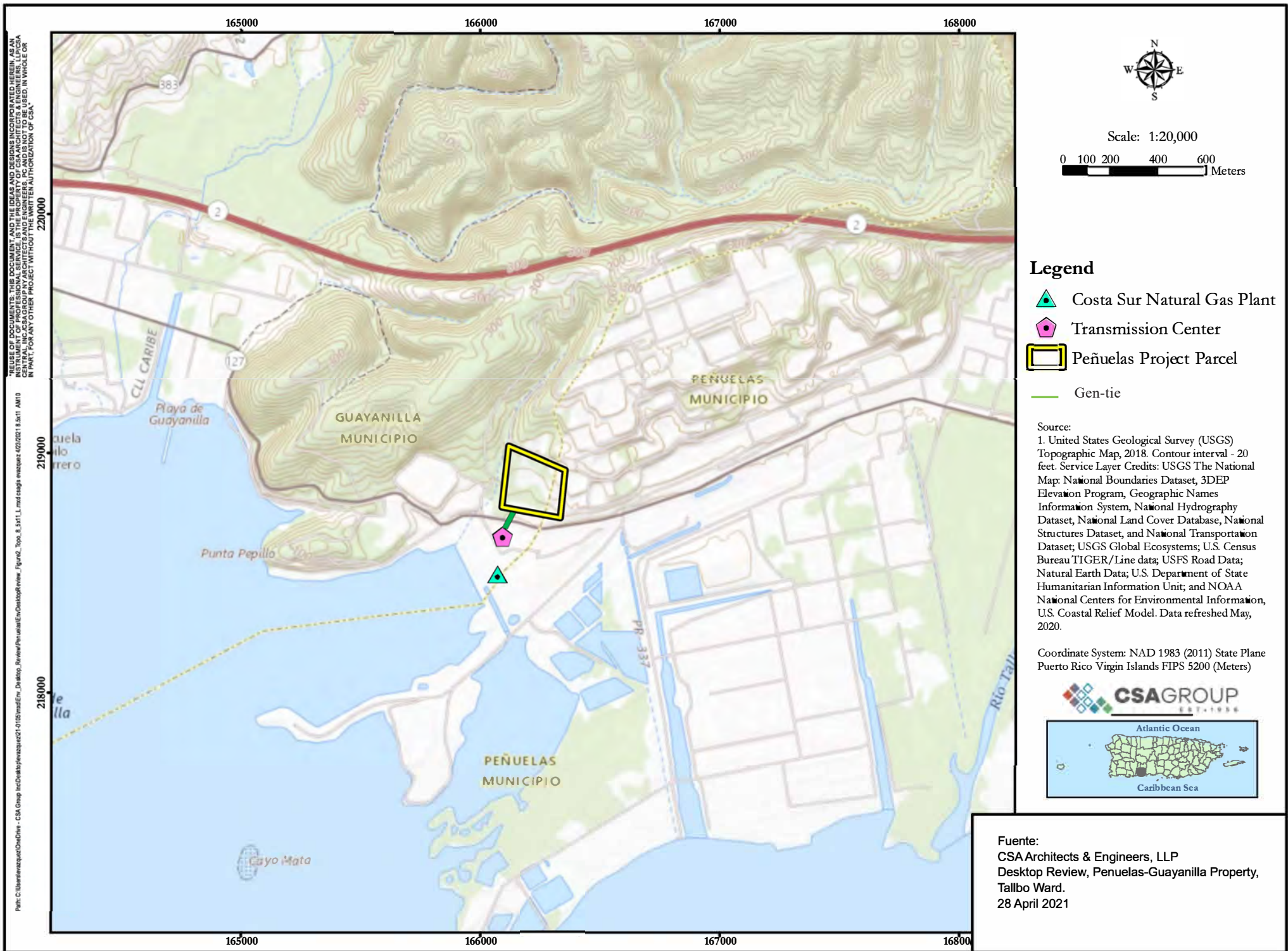
Circuit	Number of Arrays	MWdc	MWac	dc/ac Ratio
1	7	33.324	26.219	1.2710
2	7	33.195	26.219	1.2660
3	7	33.195	26.219	1.2660
4	7	29.979	23.722	1.2638
Total Capacity	28	129.693	102.379	1.2668



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Figure 15: Coamo Project Site Layout

Figure 16: Peñuelas Project Site Topographic Map



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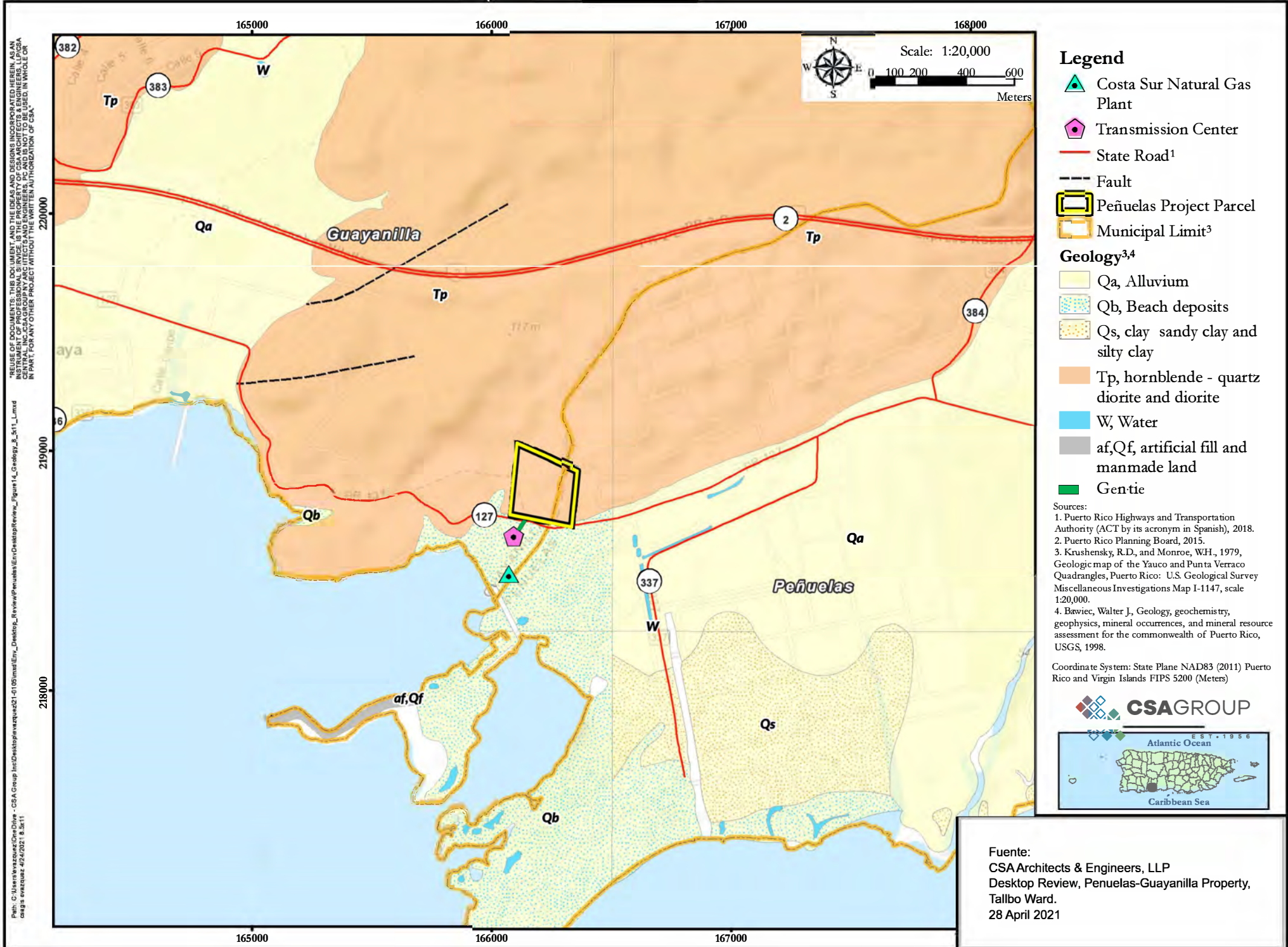
Fuente:
 CSA Architects & Engineers, LLP
 Desktop Review, Peñuelas-Guayanilla Property,
 Tallbo Ward.
 28 April 2021

Figure 17: Peñuelas Project Site Aerial Photograph



Fuente:
CSA Architects & Engineers, LLP
Desktop Review, Peñuelas-Guayanilla Property,
Tallbo Ward.
28 April 2021

Figure 19: Peñuelas Project Geologic Map



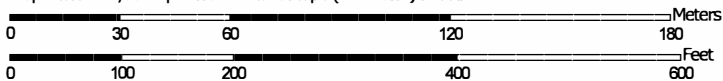
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Figure 20: Peñuelas Project Soil Classification Map



Map Scale: 1:2,060 if printed on A landscape (11" x 8.5") sheet.



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

Map Unit Legend

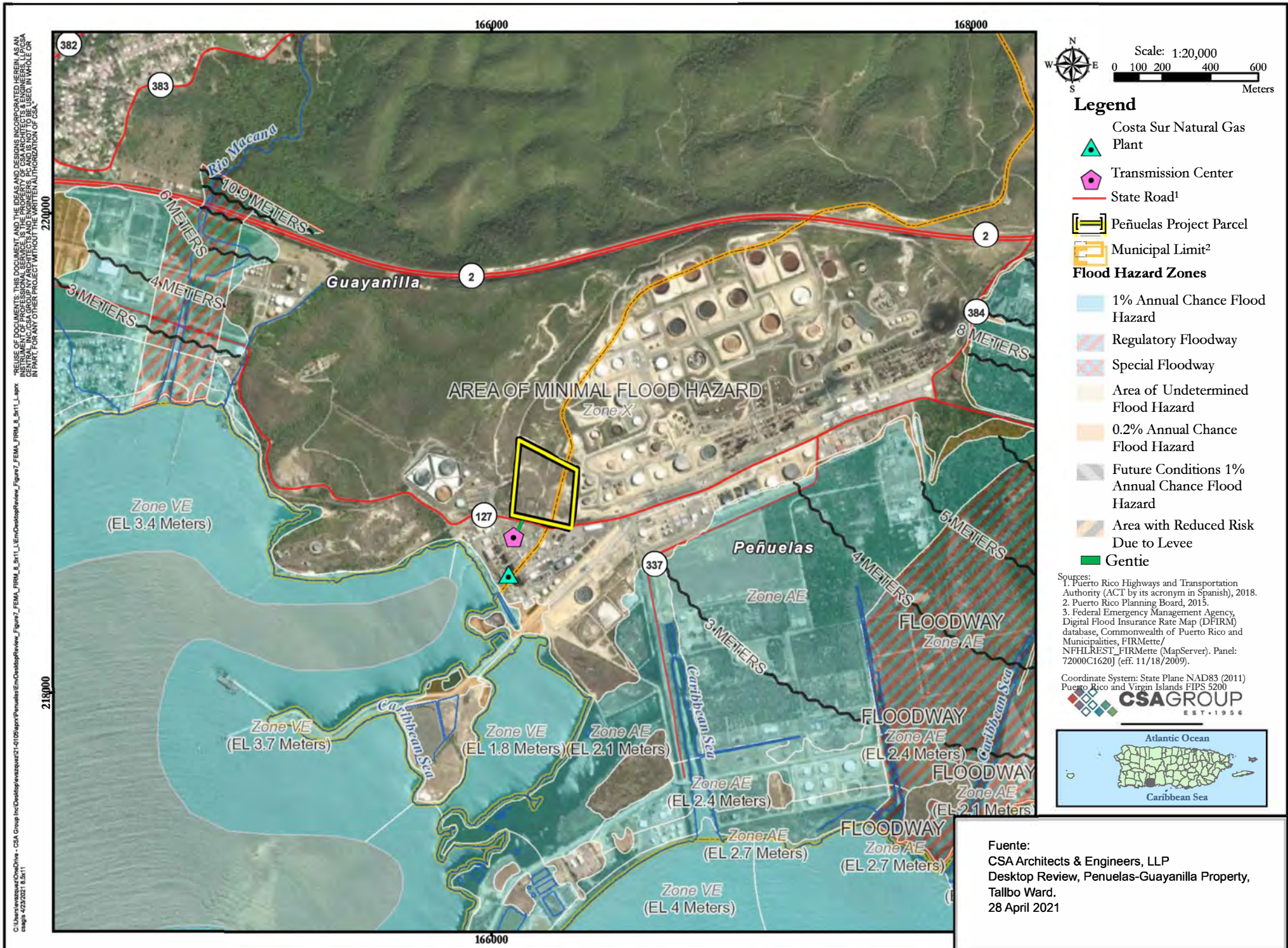
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AhF	Aguilita stony clay loam, 20 to 60 percent slopes	0.0	0.0%
UI	Urban land	14.8	100.0%
Totals for Area of Interest		14.8	100.0%



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

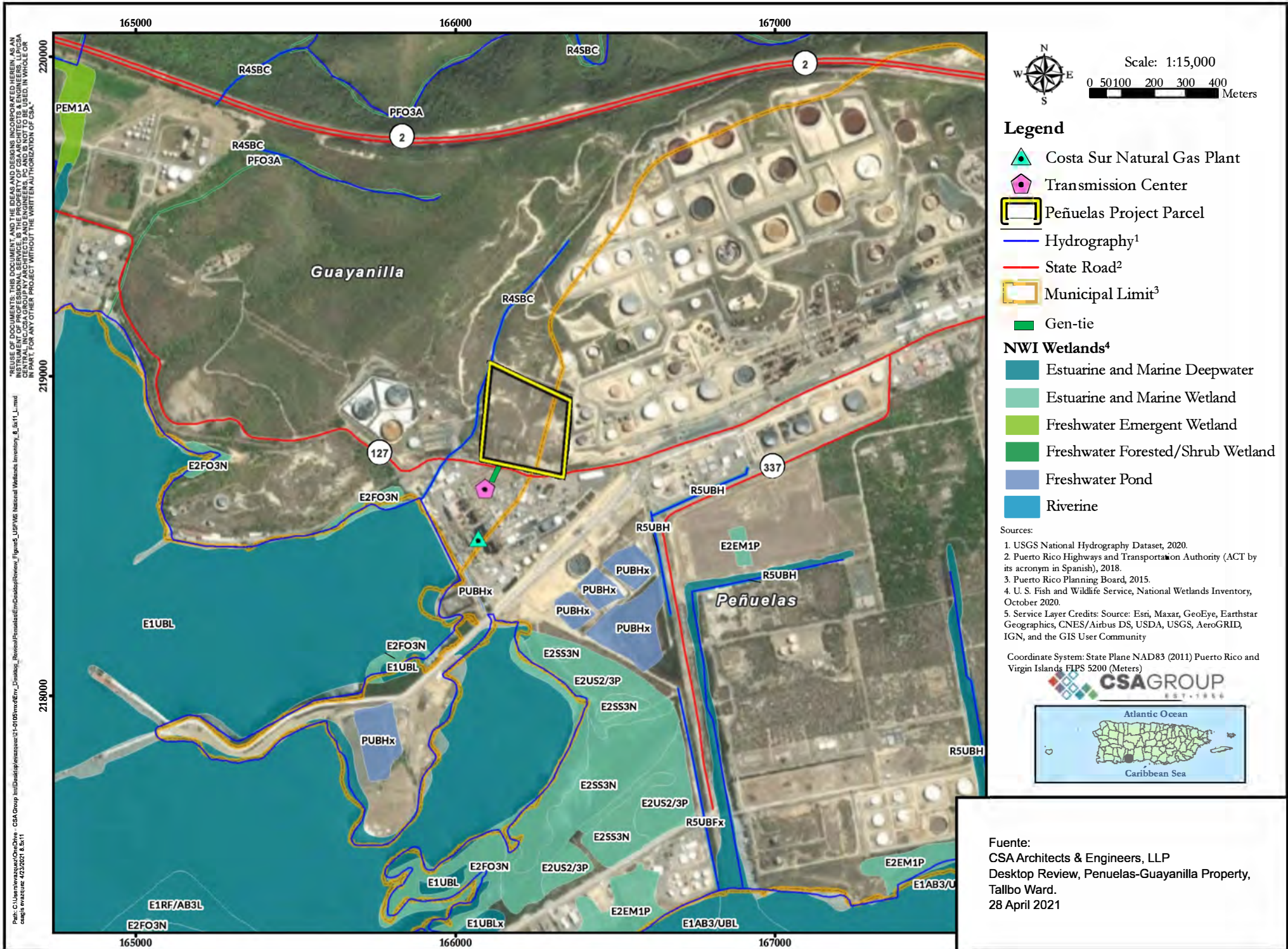
Figure 21: Peñuelas Project Flood Zones (FEMA)



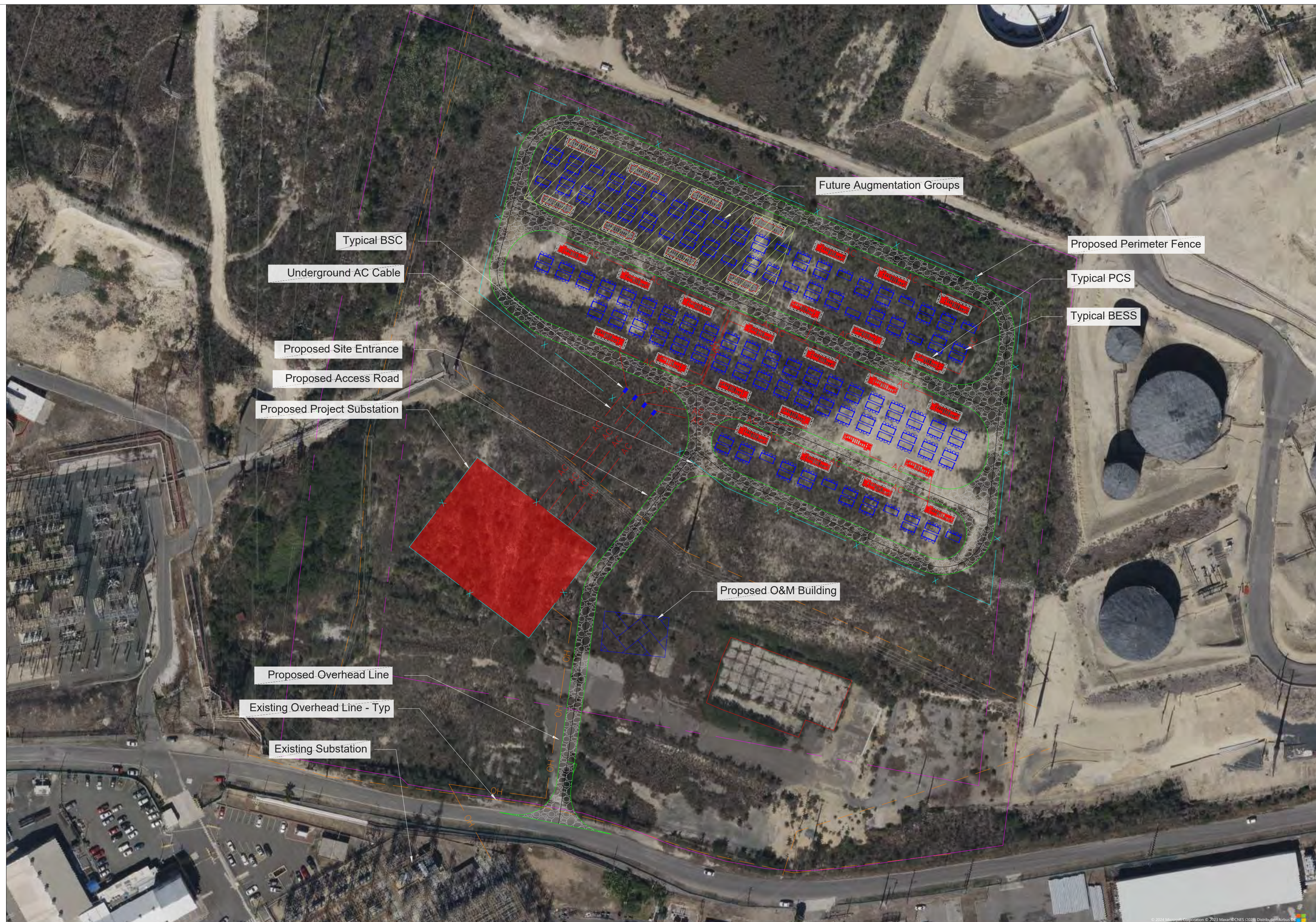
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Figure 22: Peñuelas Project Wetlands Map (USFWS NWI)



Path: C:\Users\mva\OneDrive - CSA Group\OneDrive\Documents\Projects\Peñuelas\GIS\Map_Series\Figures\USFWS National Wetlands Inventory_8_14_11.mxd
 Date: 4/28/2021 8:11 AM
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Peñuelas

Tallaboa Poniente Barrio, Peñuelas
Municipio, Puerto Rico

Owner/Developer:

Convergent

Project Site Description:

Latitude: 18.00°
Longitude: -66.75°
Elevation: 23 ft min - 96 ft max
Total Site Area - Available: 13.90 ± Acres
Total Buildable Area: 5.94 ± Acres
Total Fenced Acres: 6.10 ± Acres
Total BESS Footprint: 5.34 ± Acres

Annual Cooling Design Temp: 93.0° F
Extreme Annual Min DB MeanTemp: 63.7° F
(ASHRAE 2021)

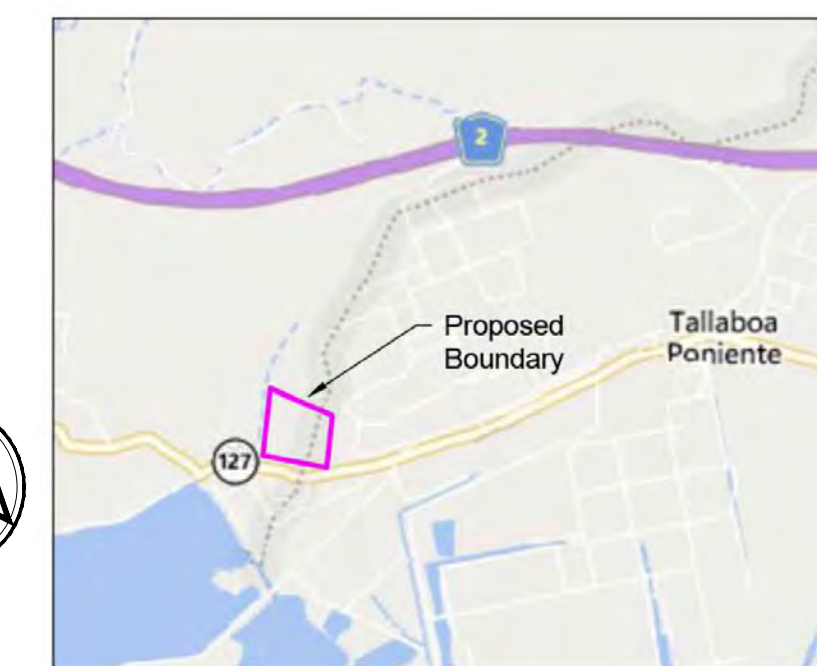
Wind Load: 154, Risk Category I
Snow Load: 0psf
Seismic Load: SS= 1.12g, S1= 0.43g

Interconnection Data:

Transmission Provider: TBD
Interconnection Voltage: 115kV
Offtaker: TBD
Point of Interconnection: 115kV
Existing Transmission Line 500ft Gen-Tie.

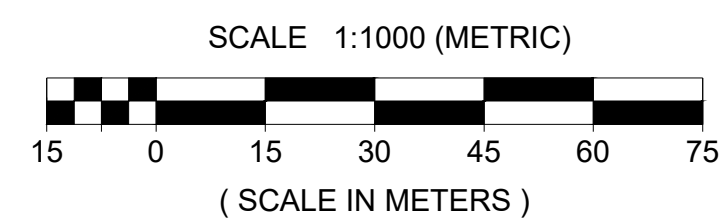
Legend

- Property Line
- Underground AC Line
- Overhead AC Line
- DB
- Directional Bore
- Perimeter Fence
- Existing Overhead Line
- Wetlands



Key Map

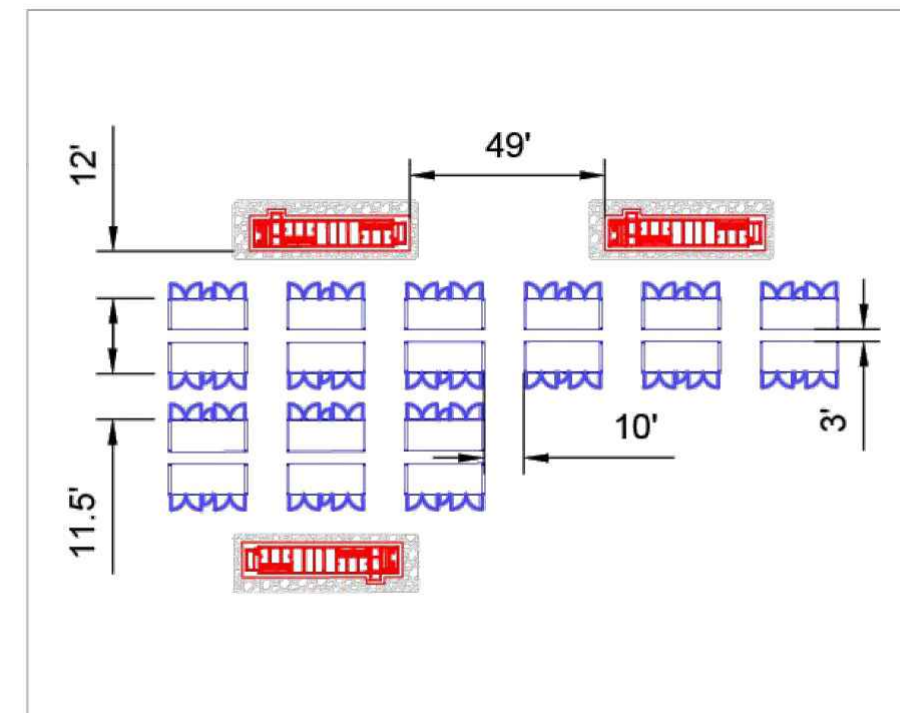
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SCALE 1:1000 (METRIC)

(SCALE IN METERS)

AC Capacity at Point of Interconnection: 100MWac



Standard Clearance

Scale: 1" = 50'

Peñuelas- Bill of Materials - Class - 0			
Major Equipment BOM		Electrical Engineering BOM	
Inverter Supplier	Ingeteam	DC Power Cable Length (LF)	62946 (3 runs)
Inverter Model	ISS-9380TL-HV-C730	DC Power Cable Size	750MCM
Inverter kVA	3242	DC Power Cable 6" Conduit Length	24444
Inverter kW	2338	DC Recombiner	0
3 Battery Inverter Nameplate:	3117	DC Power Cable Len. (Recombiner+Inv)	0
2 Battery Inverter Nameplate:	3117	DC Power Cable Size (Recombiner+Inv)	0
6 Battery MVT Nameplate:	6300	MV Cable Length (LF)	13341
5 Battery MVT Nameplate:	6300	MV Cable Termination Quantity	142
Plant Inv Nameplate:	143.4	MVSC Quantity	4
Number of Inverters per PCS	2	Aux Transformer	23
Inverter LV	720	Aux Transformer Size	225kVA
Number of Inverters total	46	AC Distribution Panel	23
Battery Supplier	CATL	Aux Feeder Cables (#6)	56810
Battery Product Model	CATL - EnerC+ (0.25C)	Aux Main Cables (1/0AWG)	966
Battery Design C Rate	0.25	Ethernet Cable	57776
Battery Nameplate (MWh)	4.07	Ground Cable (4/0 AWG)	4447
Battery Usable at FAT (MWhdc)	3.81	Ground Cable (750MCM, CU)	3445
Battery Usable at COD (MWhdc)	3.71	CU Clad Steel Cable (7#7)	17831
Civil Engineering BOM		Ground Rod (Irrevers. Conn.)	282
Cut/Fill (CY)	70,858	Fiber Cable	8894
Import (CY)	3,479	Interconnection Type	0
BESS Access Roads (12' LF)	3,377	Interconnection Package	0
Substation Access Roads (20' LF)	891	Interconnection Package Quantity	0
Directional Bore (LF)	0	Gen-Tie Quantity	0
Number of Directional Bore (EA)	0	Gen-Tie Length (LF)	529
Total Gravel Area (Sq Yd)	79964	Structural Engineering BOM	
Tree Clearing (Acres)	6	Total Fence Length (LF)	2203
Source of Topo	USGS	Total Grounded Fence Length (LF)	190
		Foundation Type	Slab on Grade

Information used to prepare this drawing		
Item	Source	Date, Revision
Project Boundary	Client Provided KMZ File: Convergent BESS-Only KMZs	N/A
CUP/SUP	None	N/A
Constraints	None	N/A
Geotechnical Report	None	N/A
FEMA	Panel: 72000C1620J	11/13/2009
Topographic Survey	USGS	N/A
Hydrology	None	N/A
Wetlands	National Wetland Database	N/A
POI Location	Client Provided KMZ File: Convergent BESS-Only KMZs	N/A
Aerial Imagery	USGS Via Bing Maps	N/A
ASHRAE	http://ashrae-metoo.info/index.php	ASHRAE 2021
Wind Load Source	https://asc7hazardtool.online/	(ASCE7-16)
Snow Load Source	https://asc7hazardtool.online/	(ASCE7-16)
Seismic Load Source	https://asc7hazardtool.online/	(ASCE7-16)

*Files are based on State Plane Coordinate System NAD83

ISSUE FOR COMMENTS NOT FOR CONSTRUCTION

CERTIFICACION DEL DISEÑADOR / DESIGNER'S CERTIFICATION

1. Certifico que los planos, especificaciones, memorias, planos y cálculos en cumplimiento con la Ley 173 de 1988 según enmendada, y estoy autorizado por el dueño del proyecto a garantizar estos planos de construcción para LUMA Energy como operador y administrador del Sistema de Transmisión y Distribución de la AEE. / I certify that I am a licensed and registered engineer, surveyor, or architect in compliance with Act 173 of 1988, as amended and authorized by the project owner to warrant these construction plans to LUMA Energy as operator and administrator of the Transmission and Distribution System of the Puerto Rico Electric Power Authority.
2. En armonía con las disposiciones de la Ley Núm. 135 de 15 de junio de 1967, según enmendada, conocida como Ley de Certificación de Planos o Proyectos, certifico que prepare el diseño eléctrico de este proyecto en conformidad con los códigos, normas, reglas y reglamentos aprobados por la AEE, la Junta de Planificación y el Oficio de Celeración de Permisos, Luma Energy y el Manual de Práctica Profesional del Cálculo, / in compliance with Act No.135 of July 15, 1967, as amended known as the "Construction Plans or Projects Certification Act", I certify that I prepared the electric design for this project in accordance with the codes, standards, rules, and regulations approved by LUMA, Puerto Rico Planning Board and Permit Management Office and the CDRB Professional Practice Manual.

FIRMA DEL DISEÑADOR / DESIGNER'S SIGNATURE

LUMA ENDOSO / ENDORSEMENT

Nombre del Proyecto / Project Name: PEÑUELAS BESS
Número de Proyecto / Project Number: _____
Carga / Load: (kVA): _____ Revisión / Revision: _____

ENDOSADO POR / ENDORSED BY

1. LUMA endosa el diseño eléctrico mostrado en estos planos de construcción basándose en la certificación emitida por el diseñador en cumplimiento con la Ley Núm. 135 del 15 de julio de 1967, según enmendada. / LUMA endorses the electric design shown in these construction plans based on the certification presented by the designer in compliance with Act 135 of July 15, 1967, as amended.
2. LUMA no asume responsabilidad sobre el diseño certificado. El endoso por parte de LUMA no releva al diseñador de la responsabilidad profesional que asume al certificar estos planos. Este endoso no otorga al constructor ni al inspector de obra autoridad de cumplir con las disposiciones del Código Electrónico Nacional, Código Electrónico de Seguridad, Códigos, patrones, normas y reglamentos vigentes de LUMA y de otros agencias de gobierno, así como leyes federales y estatales, vigentes al inicio de los planos. / LUMA does not assume responsibility over the certified design. LUMA's endorsement does not relieve the designer from the professional responsibility assumed with the certification of these project's plans. This endorsement neither the builder nor private inspector from compliance with standing dispositions from National Electric Code, National Electric Safety Code, construction standards, norms, and regulations from LUMA and other government agencies as well as federal and state laws ruling by the time construction begins.
3. El presente endoso tiene vigencia de un (1) año. De iniciar las obras eléctricas dentro de este término, mediante notificación previa a LUMA, el endoso mantendrá su vigencia hasta la terminación de las mismas. En caso de que no se certifique obra eléctrica periódica, este endoso perderá su vigencia. Este endoso no es garantía de cumplimiento de los requisitos presentados en los planos. El endoso no garantiza el cumplimiento de los requisitos de seguridad eléctrica en el Reglamento de Servidumbres Para la Autoridad local del Puerto Rico Electrico (2002 de 2007). This endorsement is valid for one (1) year. If you start the work with notification to LUMA, the endorsement will still be valid until work's completion. In case there is no certified electrical work during period, this endorsement will lose its validity. This endorsement is not to constitute an assurance or to complete the Assignment, Transfer and Guarantee process of the equipment. For this, it is necessary to comply with all the provisions of the Esstaments Regulation for the Puerto Rico Electric Power Authority (2002 of 2007).



THIS DRAWING SHALL ALWAYS BE USED USING THE TECHNICAL SPECIFICATIONS. HOWEVER THE DRAWINGS ARE NOT ORIGINALLY SIGNED AND SEALED WITH THE PROFESSIONAL ENGINEER/ARCHITECT'S STAMP.

NO	REVISIONS	DESCRIPTION	DATE
A	PRELIMINARY ENGINEERING	08/01/23	
B	UPDATED PRELIMINARY ENGINEERING	12/22/23	

PROJECT NAME AND ADDRESS
PEÑUELAS BESS
BARRIO TALLABOA PONIENTE,
PUERTO RICO

SHEET TITLE:
**PRELIMINARY
SITE PLAN**

PROJECT NUM: 23-018
DATE: DECEMBER 22, 2023

FILENAME:
DRAWING BY: CGS
PLOT SCALE: AS SHOWN

DWG NUM:
**BPSP-PEN-
400CATL**

SHEET TOTAL

OF

Figure 23: Peñuelas Project Site Layout

Figure 24: Peñuelas Zoning Map

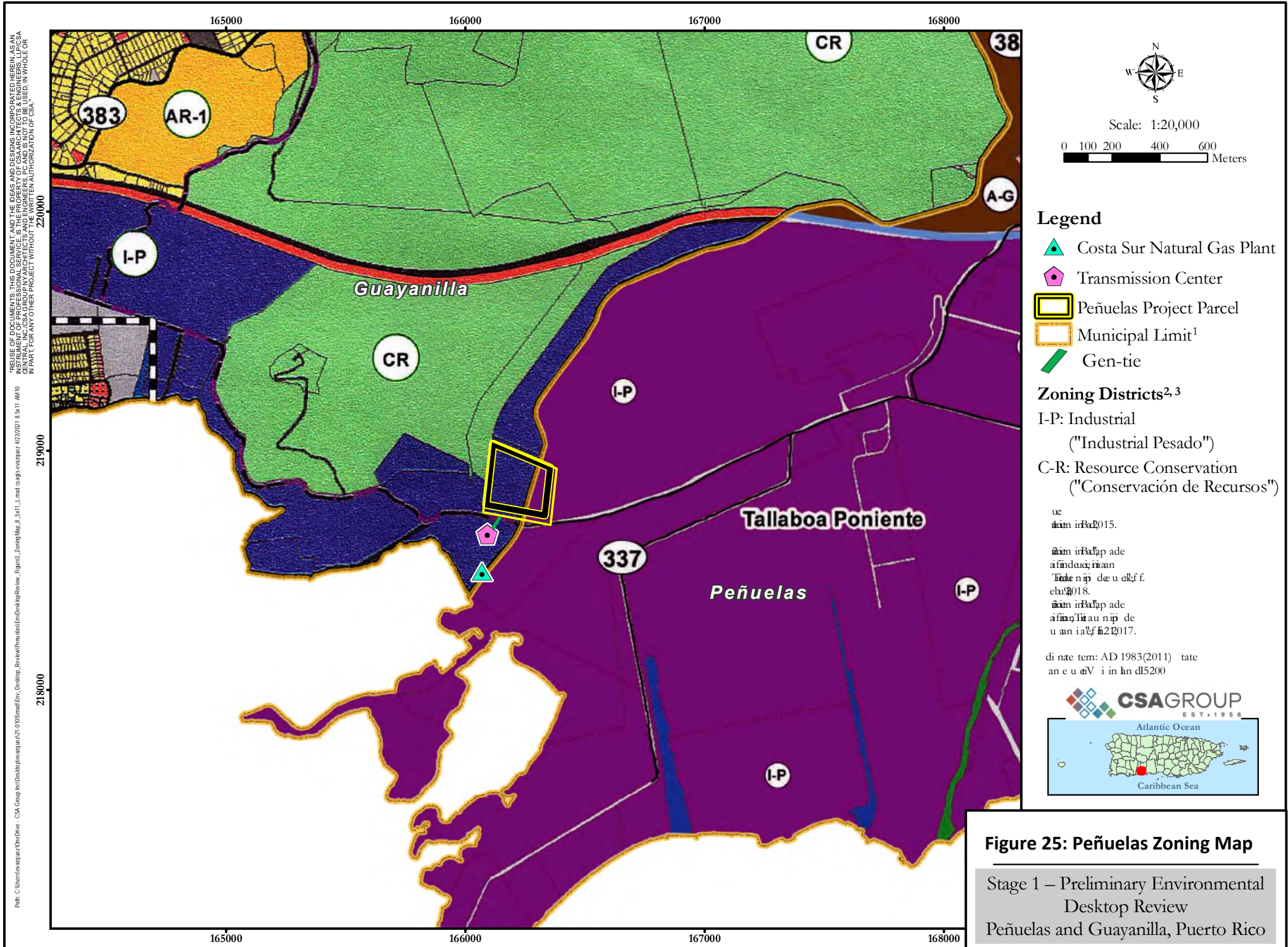
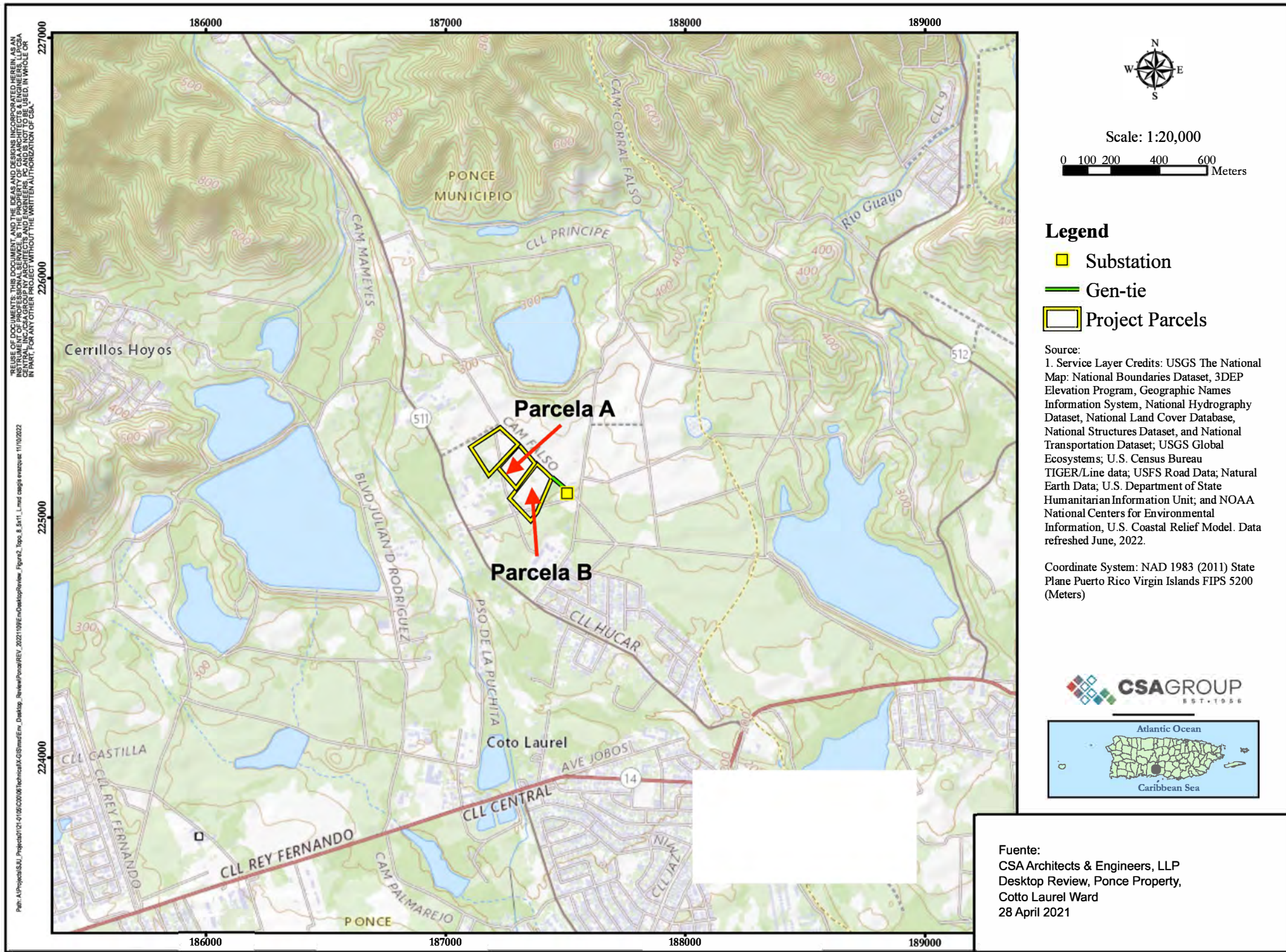


Figure 25: Peñuelas Zoning Map
Stage 1 – Preliminary Environmental Desktop Review
Peñuelas and Guayanilla, Puerto Rico

Figure 25: Ponce Project Site Topographic Map



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Figure 26: Ponce Project Site Aerial Photograph

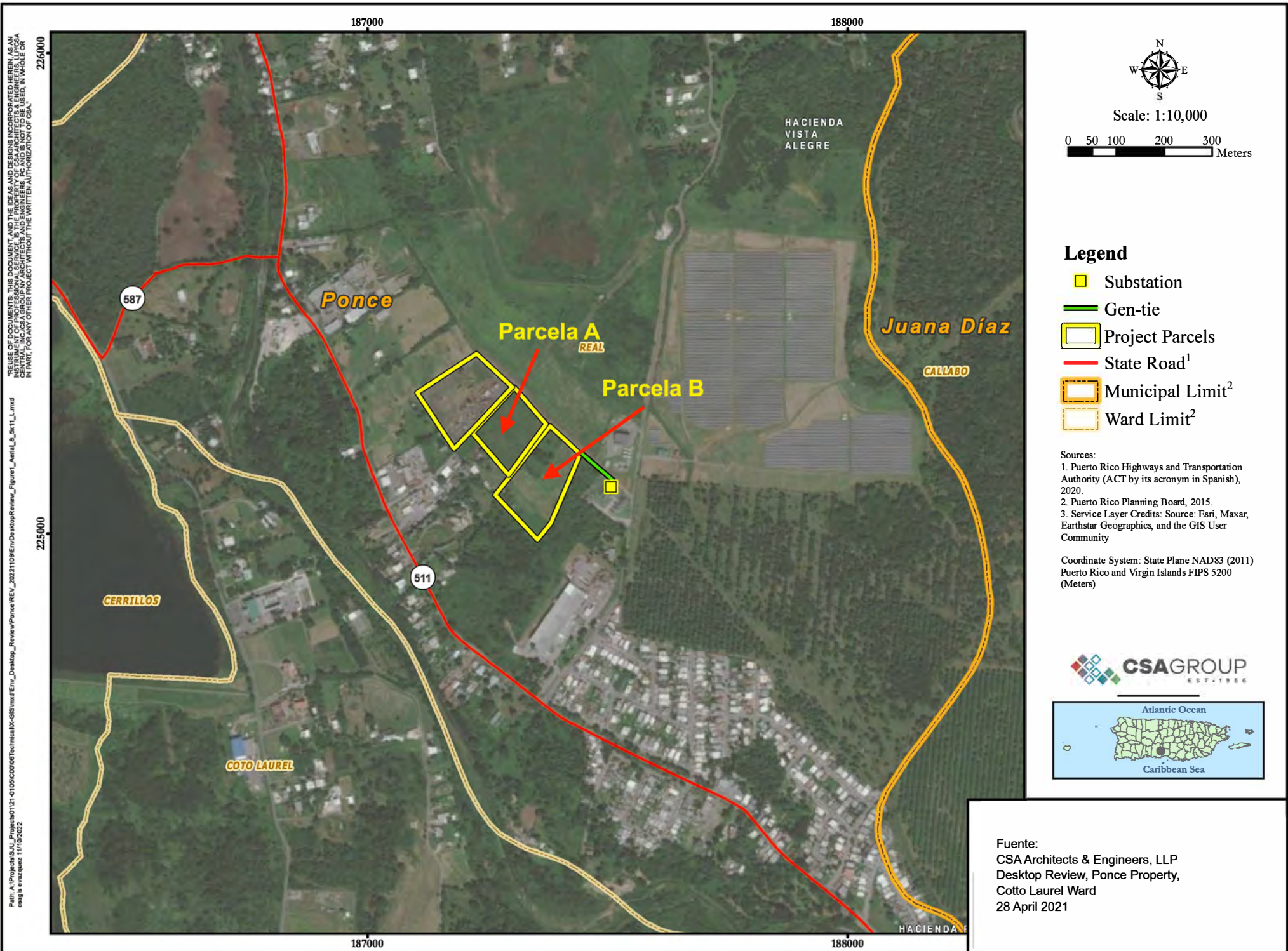


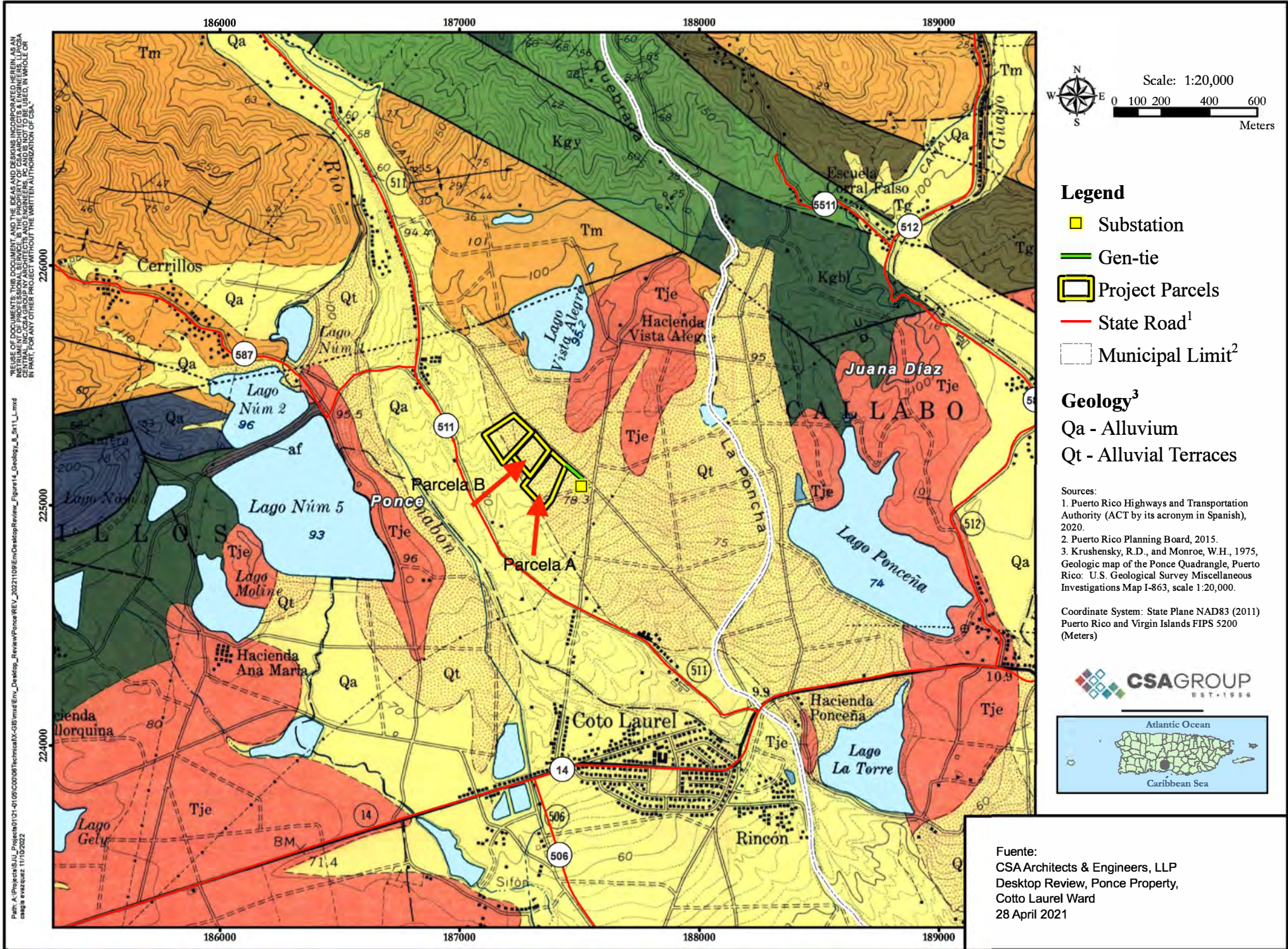
Figure 27: Ponce Project Site Survey and Topography Map

ALTANSPS & LAND TITLE SURVEY
FOR PROPERTIES #38,377 AND #21,065
LOCATED AT PR-511 KM 3.3, REAL WARD,
MUNICIPALITY OF PONCE

SURVEY TABLE

POINT	LINE	DEPT.	BEARING	DISTANCE	COORDINATE X	COORDINATE Y	DESCRIPTION
1	1-2	0.00	90°00'00"	1.0000	100.0000	100.0000	START POINT
2	2-1	0.00	270°00'00"	1.0000	99.0000	100.0000	START POINT
3	3-2	0.00	0°00'00"	1.0000	99.0000	99.0000	START POINT
4	4-3	0.00	90°00'00"	1.0000	99.0000	98.0000	START POINT
5	5-4	0.00	180°00'00"	1.0000	98.0000	98.0000	START POINT
6	6-5	0.00	90°00'00"	1.0000	98.0000	97.0000	START POINT
7	7-6	0.00	180°00'00"	1.0000	97.0000	97.0000	START POINT
8	8-7	0.00	90°00'00"	1.0000	97.0000	96.0000	START POINT
9	9-8	0.00	180°00'00"	1.0000	96.0000	96.0000	START POINT
10	10-9	0.00	90°00'00"	1.0000	96.0000	95.0000	START POINT
11	11-10	0.00	180°00'00"	1.0000	95.0000	95.0000	START POINT
12	12-11	0.00	90°00'00"	1.0000	95.0000	94.0000	START POINT
13	13-12	0.00	180°00'00"	1.0000	94.0000	94.0000	START POINT
14	14-13	0.00	90°00'00"	1.0000	94.0000	93.0000	START POINT
15	15-14	0.00	180°00'00"	1.0000	93.0000	93.0000	START POINT
16	16-15	0.00	90°00'00"	1.0000	93.0000	92.0000	START POINT
17	17-16	0.00	180°00'00"	1.0000	92.0000	92.0000	START POINT
18	18-17	0.00	90°00'00"	1.0000	92.0000	91.0000	START POINT
19	19-18	0.00	180°00'00"	1.0000	91.0000	91.0000	START POINT
20	20-19	0.00	90°00'00"	1.0000	91.0000	90.0000	START POINT
21	21-20	0.00	180°00'00"	1.0000	90.0000	90.0000	START POINT
22	22-21	0.00	90°00'00"	1.0000	90.0000	89.0000	START POINT
23	23-22	0.00	180°00'00"	1.0000	89.0000	89.0000	START POINT
24	24-23	0.00	90°00'00"	1.0000	89.0000	88.0000	START POINT
25	25-24	0.00	180°00'00"	1.0000	88.0000	88.0000	START POINT
26	26-25	0.00	90°00'00"	1.0000	88.0000	87.0000	START POINT
27	27-26	0.00	180°00'00"	1.0000	87.0000	87.0000	START POINT
28	28-27	0.00	90°00'00"	1.0000	87.0000	86.0000	START POINT
29	29-28	0.00	180°00'00"	1.0000	86.0000	86.0000	START POINT
30	30-29	0.00	90°00'00"	1.0000	86.0000	85.0000	START POINT
31	31-30	0.00	180°00'00"	1.0000	85.0000	85.0000	START POINT
32	32-31	0.00	90°00'00"	1.0000	85.0000	84.0000	START POINT
33	33-32	0.00	180°00'00"	1.0000	84.0000	84.0000	START POINT
34	34-33	0.00	90°00'00"	1.0000	84.0000	83.0000	START POINT
35	35-34	0.00	180°00'00"	1.0000	83.0000	83.0000	START POINT
36	36-35	0.00	90°00'00"	1.0000	83.0000	82.0000	START POINT
37	37-36	0.00	180°00'00"	1.0000	82.0000	82.0000	START POINT
38	38-37	0.00	90°00'00"	1.0000	82.0000	81.0000	START POINT
39	39-38	0.00	180°00'00"	1.0000	81.0000	81.0000	START POINT
40	40-39	0.00	90°00'00"	1.0000	81.0000	80.0000	START POINT
41	41-40	0.00	180°00'00"	1.0000	80.0000	80.0000	START POINT
42	42-41	0.00	90°00'00"	1.0000	80.0000	79.0000	START POINT
43	43-42	0.00	180°00'00"	1.0000	79.0000	79.0000	START POINT
44	44-43	0.00	90°00'00"	1.0000	79.0000	78.0000	START POINT
45	45-44	0.00	180°00'00"	1.0000	78.0000	78.0000	START POINT
46	46-45	0.00	90°00'00"	1.0000	78.0000	77.0000	START POINT
47	47-46	0.00	180°00'00"	1.0000	77.0000	77.0000	START POINT
48	48-47	0.00	90°00'00"	1.0000	77.0000	76.0000	START POINT
49	49-48	0.00	180°00'00"	1.0000	76.0000	76.0000	START POINT
50	50-49	0.00	90°00'00"	1.0000	76.0000	75.0000	START POINT
51	51-50	0.00	180°00'00"	1.0000	75.0000	75.0000	START POINT
52	52-51	0.00	90°00'00"	1.0000	75.0000	74.0000	START POINT
53	53-52	0.00	180°00'00"	1.0000	74.0000	74.0000	START POINT
54	54-53	0.00	90°00'00"	1.0000	74.0000	73.0000	START POINT
55	55-54	0.00	180°00'00"	1.0000	73.0000	73.0000	START POINT
56	56-55	0.00	90°00'00"	1.0000	73.0000	72.0000	START POINT
57	57-56	0.00	180°00'00"	1.0000	72.0000	72.0000	START POINT
58	58-57	0.00	90°00'00"	1.0000	72.0000	71.0000	START POINT
59	59-58	0.00	180°00'00"	1.0000	71.0000	71.0000	START POINT
60	60-59	0.00	90°00'00"	1.0000	71.0000	70.0000	START POINT
61	61-60	0.00	180°00'00"	1.0000	70.0000	70.0000	START POINT
62	62-61	0.00	90°00'00"	1.0000	70.0000	69.0000	START POINT
63	63-62	0.00	180°00'00"	1.0000	69.0000	69.0000	START POINT
64	64-63	0.00	90°00'00"	1.0000	69.0000	68.0000	START POINT
65	65-64	0.00	180°00'00"	1.0000	68.0000	68.0000	START POINT
66	66-65	0.00	90°00'00"	1.0000	68.0000	67.0000	START POINT
67	67-66	0.00	180°00'00"	1.0000	67.0000	67.0000	START POINT
68	68-67	0.00	90°00'00"	1.0000	67.0000	66.0000	START POINT
69	69-68	0.00	180°00'00"	1.0000	66.0000	66.0000	START POINT
70	70-69	0.00	90°00'00"	1.0000	66.0000	65.0000	START POINT
71	71-70	0.00	180°00'00"	1.0000	65.0000	65.0000	START POINT
72	72-71	0.00	90°00'00"	1.0000	65.0000	64.0000	START POINT
73	73-72	0.00	180°00'00"	1.0000	64.0000	64.0000	START POINT
74	74-73	0.00	90°00'00"	1.0000	64.0000	63.0000	START POINT
75	75-74	0.00	180°00'00"	1.0000	63.0000	63.0000	START POINT
76	76-75	0.00	90°00'00"	1.0000	63.0000	62.0000	START POINT
77	77-76	0.00	180°00'00"	1.0000	62.0000	62.0000	START POINT
78	78-77	0.00	90°00'00"	1.0000	62.0000	61.0000	START POINT
79	79-78	0.00	180°00'00"	1.0000	61.0000	61.0000	START POINT
80	80-79	0.00	90°00'00"	1.0000	61.0000	60.0000	START POINT
81	81-80	0.00	180°00'00"	1.0000	60.0000	60.0000	START POINT
82	82-81	0.00	90°00'00"	1.0000	60.0000	59.0000	START POINT
83	83-82	0.00	180°00'00"	1.0000	59.0000	59.0000	START POINT
84	84-83	0.00	90°00'00"	1.0000	59.0000	58.0000	START POINT
85	85-84	0.00	180°00'00"	1.0000	58.0000	58.0000	START POINT
86	86-85	0.00	90°00'00"	1.0000	58.0000	57.0000	START POINT
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88	88-87	0.00	90°00'00"	1.0000	57.0000	56.0000	START POINT
89	89-88	0.00	180°00'00"	1.0000	56.0000	56.0000	START POINT
90	90-89	0.00	90°00'00"	1.0000	56.0000	55.0000	START POINT
91	91-90	0.00	180°00'00"	1.0000	55.0000	55.0000	START POINT
92	92-91	0.00	90°00'00"	1.0000	55.0000	54.0000	START POINT
93	93-92	0.00	180°00'00"	1.0000	54.0000	54.0000	START POINT
94	94-93	0.00	90°00'00"	1.0000	54.0000	53.0000	START POINT
95	95-94	0.00	180°00'00"	1.0000	53.0000	53.0000	START POINT
96	96-95	0.00	90°00'00"	1.0000	53.0000	52.0000	START POINT
97	97-96	0.00	180°00'00"	1.0000	52.0000	52.0000	START POINT
98	98-97	0.00	90°00'00"	1.0000	52.0000	51.0000	START POINT
99	99-98	0.00	180°00'00"	1.0000	51.0000	51.0000	START POINT
100	100-99	0.00	90°00'00"	1.0000	51.0000	50.0000	START POINT
101	101-100	0.00	180°00'00"	1.0000	50.0000	50.0000	START POINT
102	102-101	0.00	90°00'00"	1.0000	50.0000	49.0000	START POINT
103	103-102	0.00	180°00'00"	1.0000	49.0000	49.0000	START POINT
104	104-103	0.00	90°00'00"	1.0000	49.0000	48.0000	START POINT
105	105-104	0.00	180°00'00"	1.0000	48.0000	48.0000	START POINT
106	106-105	0.00	90°00'00"	1.0000	48.0000	47.0000	START POINT
107	107-106	0.00	180°00'00"	1.0000	47.0000	47.0000	START POINT
108	108-107	0.00	90°00'00"	1.0000	47.0000	46.0000	START POINT
109	109-108	0.00	180°00'00"	1.0000	46.0000	46.0000	START POINT
110	110-109	0.00	90°00'00"	1.0000	46.0000	45.0000	START POINT
111	111-110	0.00	180°00'00"	1.0000	45.0000	45.0000	START POINT
112	112-111	0.00	90°00'00"	1.0000	45.0000	44.0000	START POINT
113	113-112	0.00	180°00'00"	1.0000	44.0000	44.0000	START POINT
114	114-113	0.00	90°00'00"	1.0000	44.0000	43.0000	START POINT
115	115-114	0.00	180°00'00"	1.0000	43.0000	43.0000	START POINT
116	116-115	0.00	90°00'00"	1.0000	43.0000	42.0000	START POINT
117	117-116	0.00	180°00'00"	1.0000	42.0000	42.0000	START POINT
118	118-117	0.00	90°00'00"	1.0000	42.0000	41.0000	START POINT
119	119-118	0.00	180°00'00"	1.0000	41.0000	41.0000	START POINT
120	120-119	0.00	90°00'00"	1.0000	41.0000	40.0000	START POINT
121	121-120	0.00	180°00'00"	1.0000	40.0000	40.0000	START POINT
122	122-121	0.00	90°00'00"	1.0000	40.0000	39.0000	START POINT
123	123-122	0.00	180°00'00"	1.0000	39.0000	39.0000	START POINT
124	124-123	0.00	90°00'00"	1.0000	39.0000	38.0000	START POINT
125	125-124	0.00	180°00'00"	1.0000	38.0000	38.0000	START POINT
126	126-125	0.00	90°00'00"	1.0000	38.0000	37.0000	START POINT
127	127-126	0.00	180°00'00"	1.0000	37.0000	37.0000	START POINT
128	128-127	0.00	90°00'00"	1.0000	37.0000	36.0000	START POINT
129	129-128	0.00	180°00'00"	1.0000	36.0000	36.0000	START POINT
130	130-129	0.00	90°00'00"	1.0000	36.0000	35.0000	START POINT
131	131-130	0.00	180°00'00"	1.0000	35.0000	35.0000	START POINT
132	132-131	0.00	90°00'00"	1.0000	35.0000	34.0000	START POINT
133	133-132	0.00	180°00'00"	1.0000	34.0000	34.0000	START POINT
134	134-133	0.00	90°00'00"	1.0000	34.0000	33.0000	START POINT
135	135-134	0.00	180°00'00"	1.0000	33.0000	33.0000	START POINT
136	136-135	0.00	90°00'00"	1.0000	33.0000	32.0000	START POINT
137	137-136	0.00	180°00'00"	1.0000	32.0000	32.0000	START POINT
138	138-137	0.00	90°00'00"	1.0000	32.0000	31.0000	START POINT
139	139-138	0.00	180°00'00"				

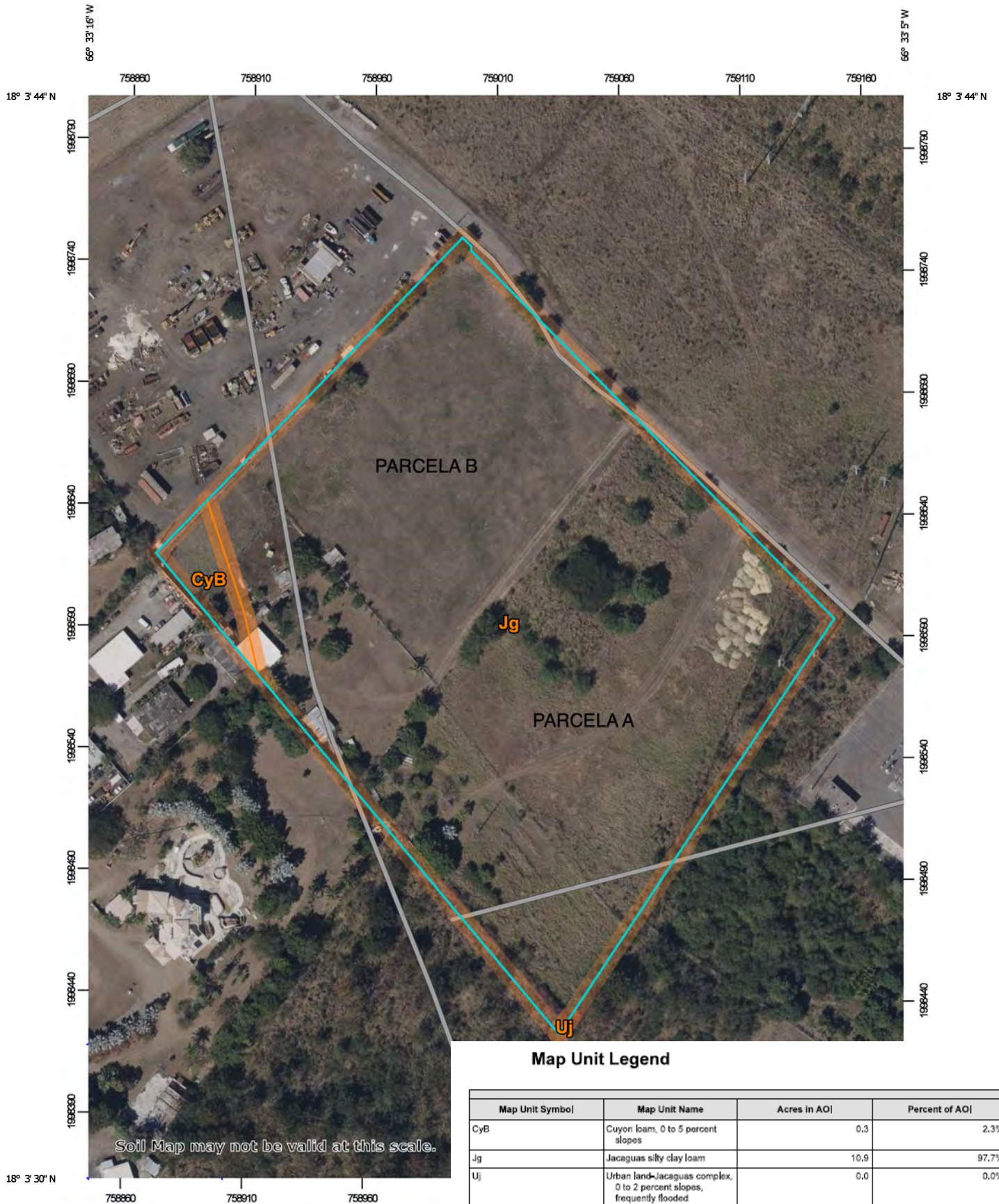
Figure 28: Ponce Project Geologic Map



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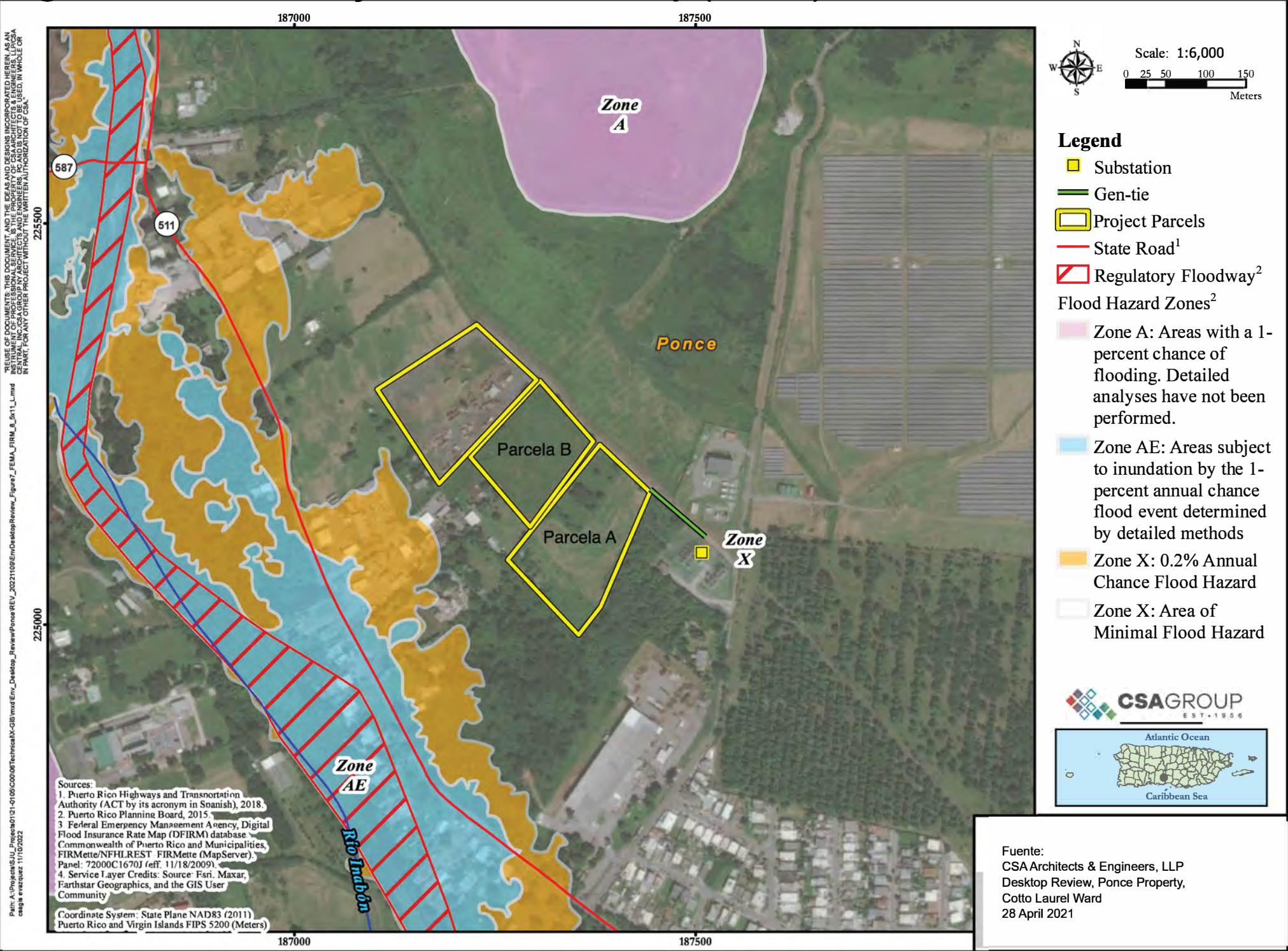
Figure 29: Ponce Project Site Soil Classification Map



Map Scale: 1:2,170 if printed on A portrait (8.5" x 11") sheet

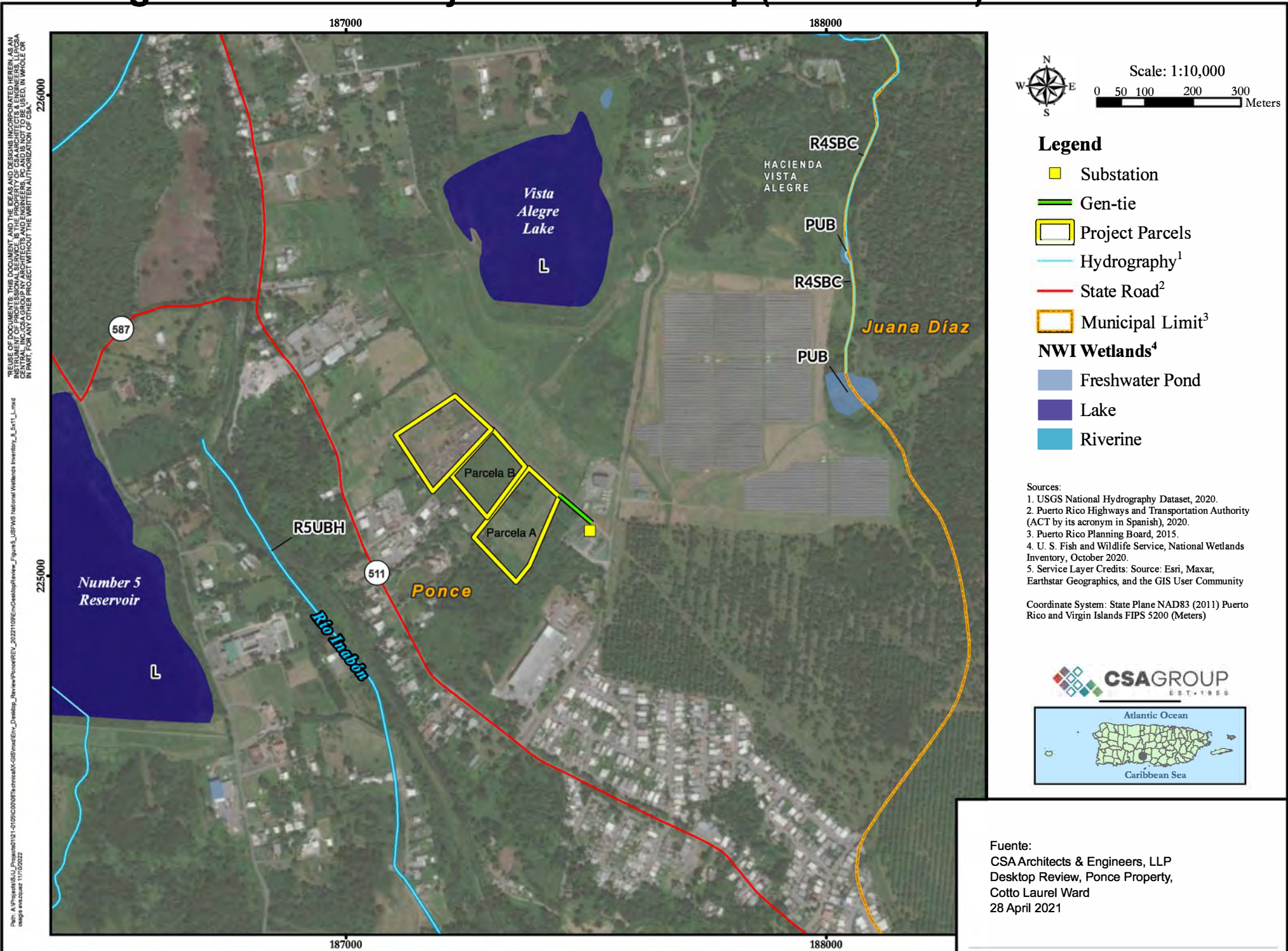


Figure 30: Ponce Project Flood Zone Map (FEMA)



Fuente:
 CSA Architects & Engineers, LLP
 Desktop Review, Ponce Property,
 Cotto Laurel Ward
 28 April 2021

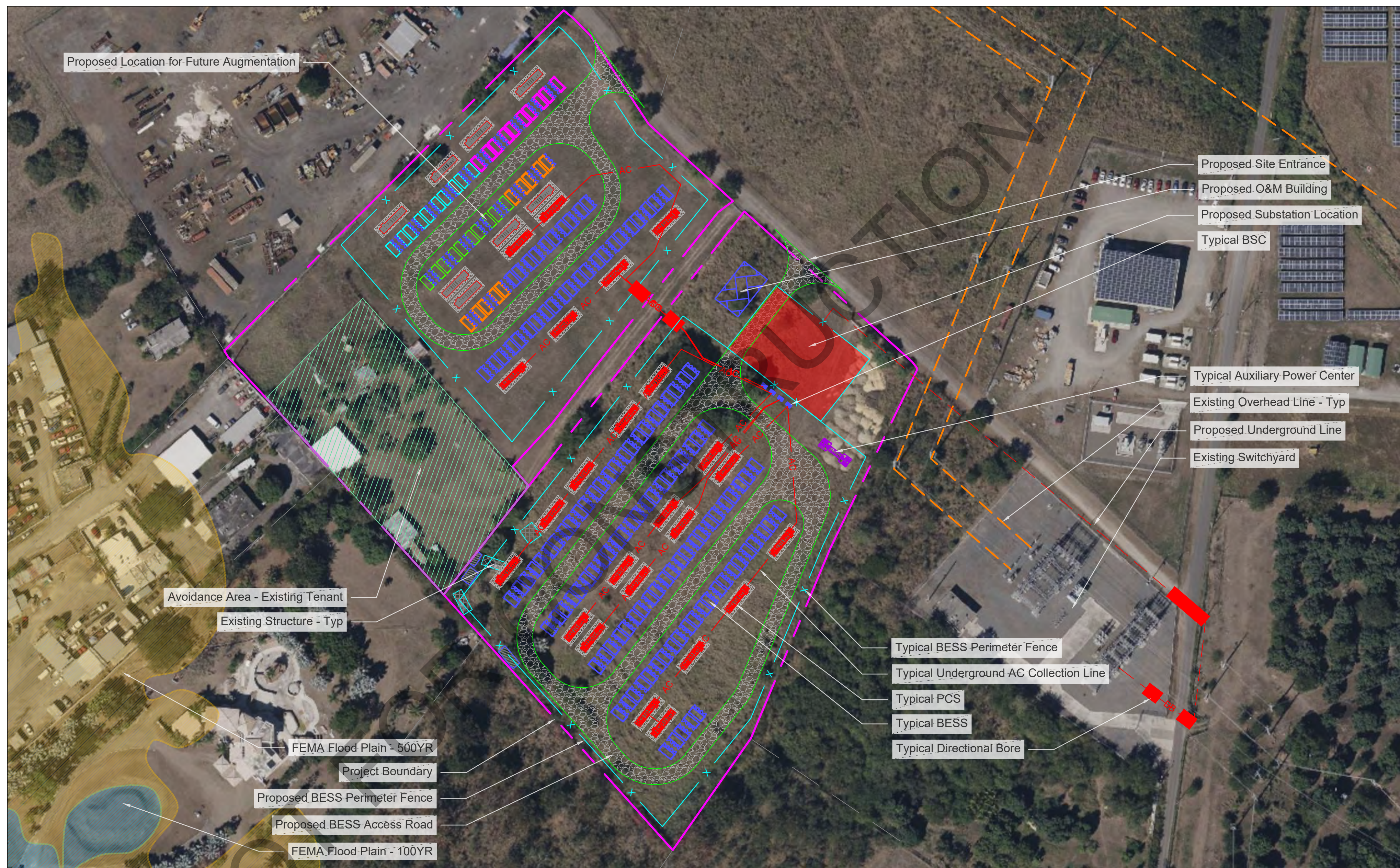
Figure 31: Ponce Project Wetlands Map (USFWS NWI)



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 esri esri.com 11/10/2022

Fuente:
 CSA Architects & Engineers, LLP
 Desktop Review, Ponce Property,
 Cotto Laurel Ward
 28 April 2021



Ponce
Real Barrio, Ponce, Puerto Rico

Owner/Developer:
Convergent

Project Site Description:
Latitude: 18.06°
Longitude: -66.55°
Elevation: 258 ft min - 276 ft max
Total Site Area - Available: 10.36 ± Acres
Total Buildable Area: 5.77 ± Acres
Total Fenced Acres: 6.65 ± Acres
Total BESS Footprint: 5.20 ± Acres

Annual Cooling Design Temp: 98.6° F
Extreme Annual Min DB MeanTemp: 63.7° F (ASHRAE 2021)

Wind Load: 153, Risk Category I
Snow Load: 0psf
Seismic Load: SS= 1.02g, S1= 0.39g

Interconnection Data:
Transmission Provider: LUMA
Interconnection Voltage: 115kV
Offtaker: LUMA
Point of Interconnection: 115kV Substation Tie-In to Existing Switchyard via 892ft Gen-Tie.

- Legend**
- Property Line
 - AC Underground AC Collection Line
 - Underground AC Line
 - Perimeter Fence
 - Existing Overhead Line
 - Directional Bore
 - Avoidance Area - Existing Tenant
 - FEMA Flood Plain - 100-YR
 - FEMA Flood Plain - 500-YR
 - Augmentation Group 1
 - Augmentation Group 2
 - Augmentation Group 3
 - Augmentation Group 4
 - Augmentation Group 5

DEPCOM POWER
9200 E PIMA CENTER PARKWAY #180
SCOTTSDALE, AZ 85258
PHONE: (480) 270-6910
WWW.DEPCOMPOWER.COM

CONVERGENT

Ponce
Real Barrio, Ponce, Puerto Rico

THIS PRINT IS NOT TO BE USED FOR CONSTRUCTION UNLESS NOTED AND SIGNED "OK FOR CONSTRUCTION" ABOVE LAST REVISION

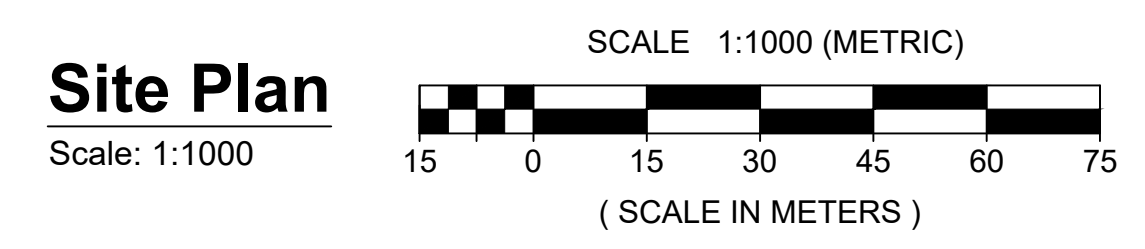
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DEPCOM JOB NUMBER:
PROJECT CODE:
PROJECT DIRECTOR: TBD
PROJECT MANAGER: TBD

SHEET TITLE:
BESS Preliminary Site Plan

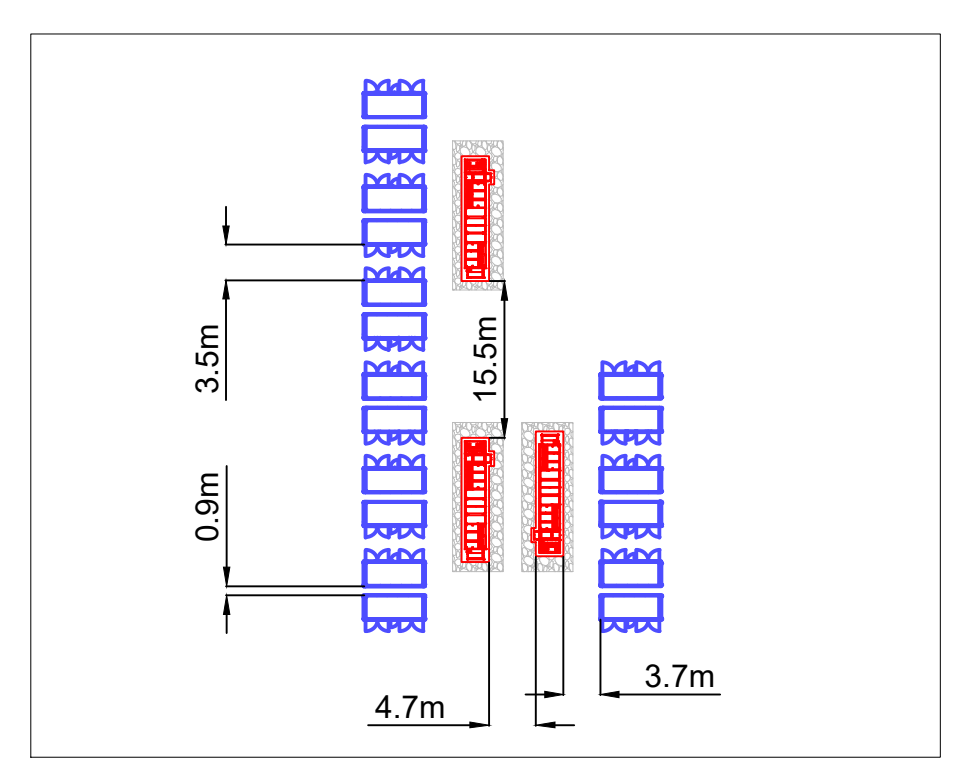
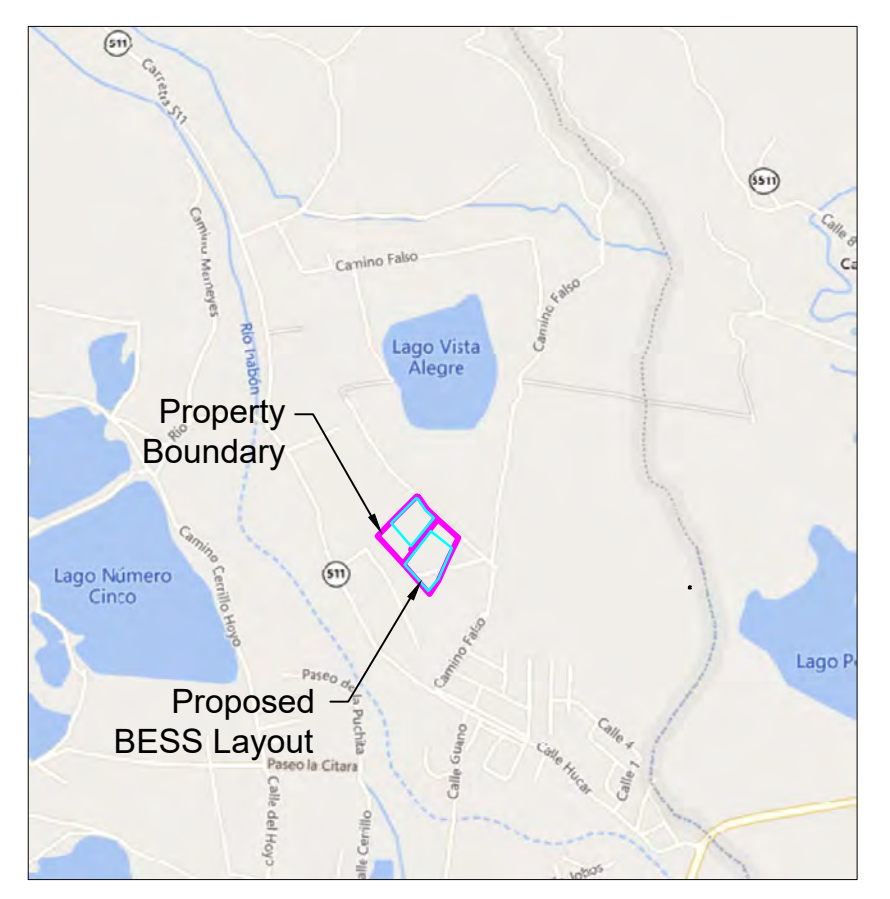
CHECKED BY: DY
DRAWN BY: MM
SCALE: AS NOTED
DRAWING NUMBER:

bPSP-PON-100CATL
SHEET 1 OF 2



AC Capacity at Point of Interconnection: 100MWac

Energy Storage Data		
Project Rated Power @ POI	100.0	MW
Power Factor @ POI	0.85	
Energy Nameplate	521.40	MWh
Energy Usable @ COD	436.33	MWh
First Augment Year	Q4 Y3	
Design Duration	4	Hr
Max C-Rate	0.25	
Battery DC Voltage Range	1136-1500	Vdc
Max Design Temp (ASHRAE 50yr. Max DB)	37.0	°C
System RTE (BoL)	86.9%	
Annual Cycles	365	
Project Coordinates	18.061, -66.553	
Daily Aux Power Usage	0.0	MWh
Annual Aux Power Usage	0	MWh
Aux Power Weighted % of Use (Yr. 1)	0.00	



Information used to prepare this drawing		
Item	Source	Date, Revision
Project Boundary	Client Provided KMZ file: Convergent BESS-Only KMZs; Client Provided ALTA Drawing file: "3949-EC-PONCE.dwg"	N/A; N/A
CUP/SUP	None	N/A
Constraints	None	N/A
Geotechnical Report	None	N/A
FEMA	FIRM Panels: 72000C1670J	11/17/2009
Topographic Survey	USGS	N/A
Hydrology	None	N/A
Wetlands	National Wetland Database	N/A
POI Location	Client Provided KMZ file: Convergent BESS-Only KMZs	N/A
Aerial Imagery	USGS Via Bing Maps	N/A
ASHRAE	http://ashrae-meteo.info/index.php	ASHRAE 2021
Wind Load Source	https://asce7hazardtool.online/	(ASCE7-16)
Snow Load Source	https://asce7hazardtool.online/	(ASCE7-16)
Seismic Load Source	https://asce7hazardtool.online/	(ASCE7-16)

*Files are based on State Plane Coordinate System NAD83

Figure 32: Ponce Project Site Layout

J:\Depcom Power Dev\CAD - PDE\Opportunities\Convergent Energy & Power\Ponce - BESS\Site Plans\WIP\Active Drawings\100-500CATL - Alt Layout

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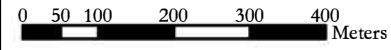
Figure 35: Caguas Project Site Aerial Map

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Scale: 1:10,000



Legend

- State Road¹
- Caguas Project Parcel

Sources:
 1. Puerto Rico Highways and Transportation Authority (ACT by its acronym in Spanish), 2018.
 2. Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

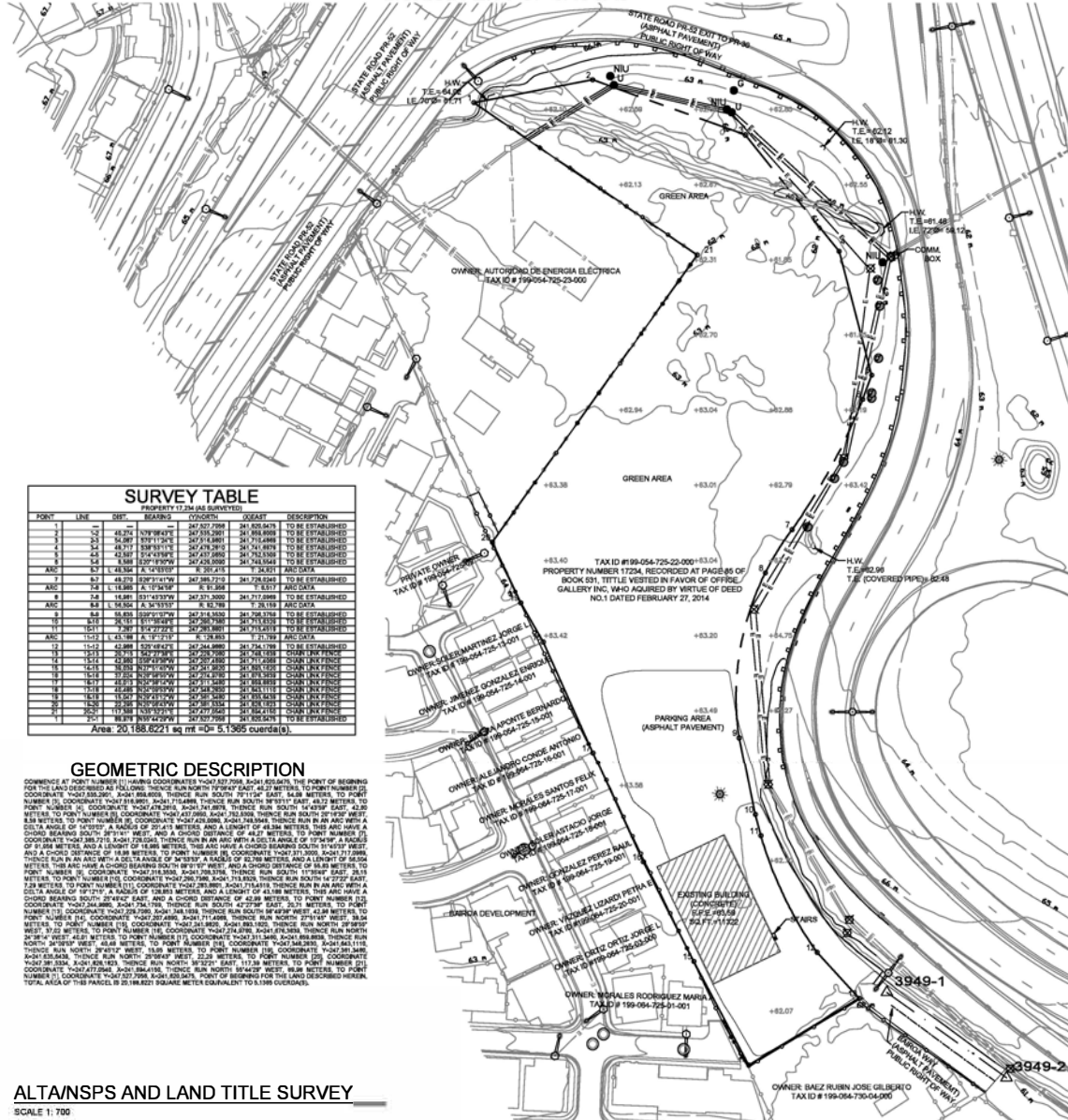
Coordinate System: State Plane NAD83 (2011) Puerto Rico and Virgin Islands FIPS 5200 (Meters)



Fuente:
 CSA Architects & Engineers, LLP
 Desktop Review, Ponce Property,
 Cotto Laurel Ward
 28 April 2021

Figure 36: Caguas Project Site Survey and Topography Map

ALT/NSPS & LAND TITLE SURVEY
FOR PROPERTY #17,234
LOCATED AT BAIROA WARD, STATE ROAD PR-52,
MUNICIPALITY OF CAGUAS

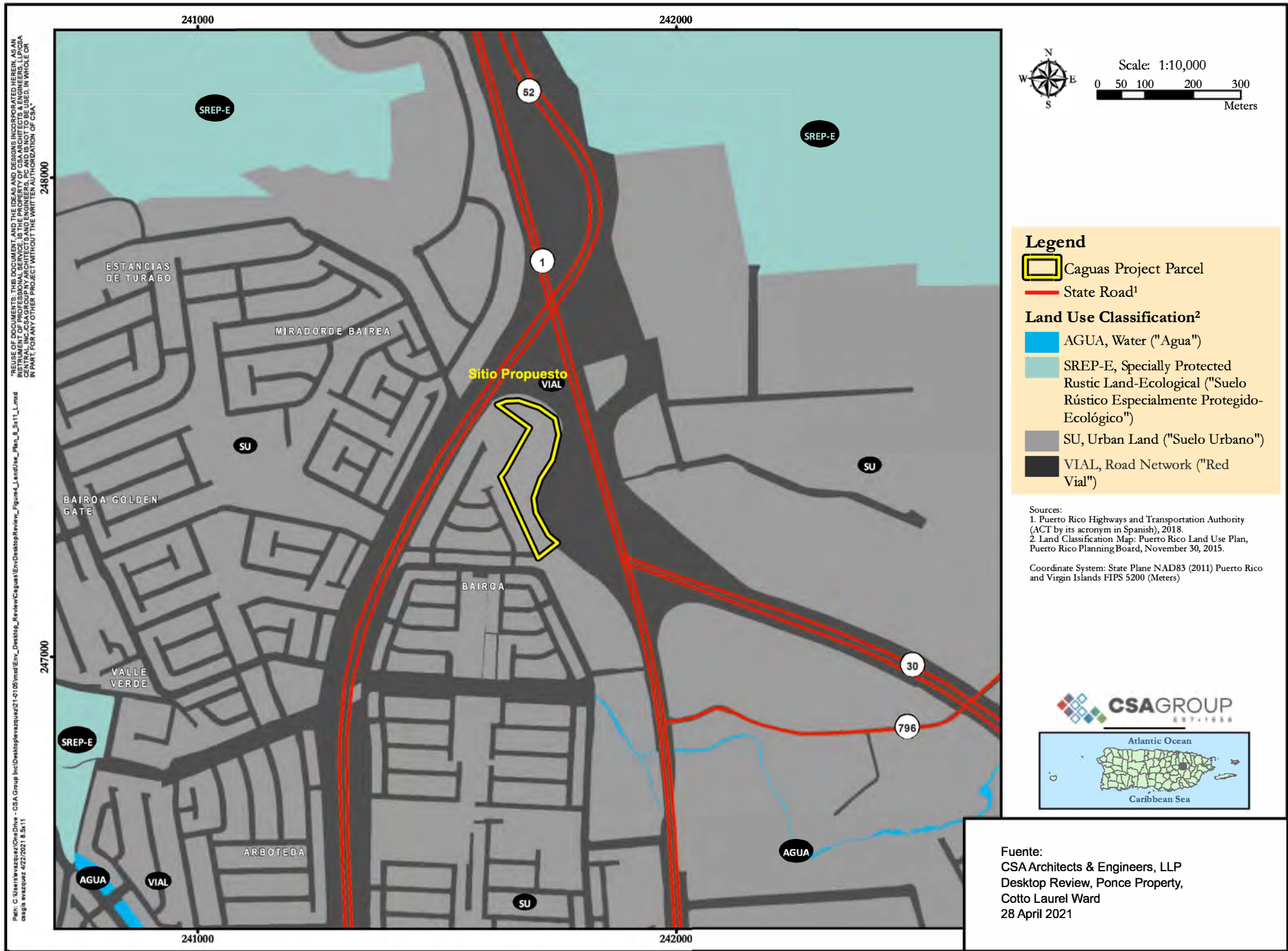


SURVEY TABLE

PROPERTY 17,234 (AS SURVEYED)

POINT	LINE	DEP.	BEARING	COORDINATES	REMARKS
1	1	78.21	109°11'47.17"	247,537.7094	TO BE ESTABLISHED
2	2	32.87	109°11'47.17"	247,514.3611	TO BE ESTABLISHED
3	3	43.87	109°11'47.17"	247,470.4902	TO BE ESTABLISHED
4	4	43.87	109°11'47.17"	247,426.6193	TO BE ESTABLISHED
5	5	1.81	109°11'47.17"	247,403.8012	TO BE ESTABLISHED
6	6	1.81	109°11'47.17"	247,381.0131	TO BE ESTABLISHED
7	7	1.81	109°11'47.17"	247,358.2250	TO BE ESTABLISHED
8	8	1.81	109°11'47.17"	247,335.4369	TO BE ESTABLISHED
9	9	1.81	109°11'47.17"	247,312.6488	TO BE ESTABLISHED
10	10	1.81	109°11'47.17"	247,289.8607	TO BE ESTABLISHED
11	11	1.81	109°11'47.17"	247,267.0726	TO BE ESTABLISHED
12	12	1.81	109°11'47.17"	247,244.2845	TO BE ESTABLISHED
13	13	1.81	109°11'47.17"	247,221.4964	TO BE ESTABLISHED
14	14	1.81	109°11'47.17"	247,198.7083	TO BE ESTABLISHED
15	15	1.81	109°11'47.17"	247,175.9202	TO BE ESTABLISHED
16	16	1.81	109°11'47.17"	247,153.1321	TO BE ESTABLISHED
17	17	1.81	109°11'47.17"	247,130.3440	TO BE ESTABLISHED
18	18	1.81	109°11'47.17"	247,107.5559	TO BE ESTABLISHED
19	19	1.81	109°11'47.17"	247,084.7678	TO BE ESTABLISHED
20	20	1.81	109°11'47.17"	247,061.9797	TO BE ESTABLISHED
21	21	1.81	109°11'47.17"	247,039.1916	TO BE ESTABLISHED
22	22	1.81	109°11'47.17"	247,016.4035	TO BE ESTABLISHED
23	23	1.81	109°11'47.17"	246,993.6154	TO BE ESTABLISHED
24	24	1.81	109°11'47.17"	246,970.8273	TO BE ESTABLISHED
25	25	1.81	109°11'47.17"	246,948.0392	TO BE ESTABLISHED
26	26	1.81	109°11'47.17"	246,925.2511	TO BE ESTABLISHED
27	27	1.81	109°11'47.17"	246,902.4630	TO BE ESTABLISHED
28	28	1.81	109°11'47.17"	246,879.6749	TO BE ESTABLISHED
29	29	1.81	109°11'47.17"	246,856.8868	TO BE ESTABLISHED
30	30	1.81	109°11'47.17"	246,834.0987	TO BE ESTABLISHED
31	31	1.81	109°11'47.17"	246,811.3106	TO BE ESTABLISHED
32	32	1.81	109°11'47.17"	246,788.5225	TO BE ESTABLISHED
33	33	1.81	109°11'47.17"	246,765.7344	TO BE ESTABLISHED
34	34	1.81	109°11'47.17"	246,742.9463	TO BE ESTABLISHED
35	35	1.81	109°11'47.17"	246,720.1582	TO BE ESTABLISHED
36	36	1.81	109°11'47.17"	246,697.3701	TO BE ESTABLISHED
37	37	1.81	109°11'47.17"	246,674.5820	TO BE ESTABLISHED
38	38	1.81	109°11'47.17"	246,651.7939	TO BE ESTABLISHED
39	39	1.81	109°11'47.17"	246,628.0058	TO BE ESTABLISHED
40	40	1.81	109°11'47.17"	246,605.2177	TO BE ESTABLISHED
41	41	1.81	109°11'47.17"	246,582.4296	TO BE ESTABLISHED
42	42	1.81	109°11'47.17"	246,559.6415	TO BE ESTABLISHED
43	43	1.81	109°11'47.17"	246,536.8534	TO BE ESTABLISHED
44	44	1.81	109°11'47.17"	246,514.0653	TO BE ESTABLISHED
45	45	1.81	109°11'47.17"	246,491.2772	TO BE ESTABLISHED
46	46	1.81	109°11'47.17"	246,468.4891	TO BE ESTABLISHED
47	47	1.81	109°11'47.17"	246,445.7010	TO BE ESTABLISHED
48	48	1.81	109°11'47.17"	246,422.9129	TO BE ESTABLISHED
49	49	1.81	109°11'47.17"	246,400.1248	TO BE ESTABLISHED
50	50	1.81	109°11'47.17"	246,377.3367	TO BE ESTABLISHED
51	51	1.81	109°11'47.17"	246,354.5486	TO BE ESTABLISHED
52	52	1.81	109°11'47.17"	246,331.7605	TO BE ESTABLISHED
53	53	1.81	109°11'47.17"	246,308.9724	TO BE ESTABLISHED
54	54	1.81	109°11'47.17"	246,286.1843	TO BE ESTABLISHED
55	55	1.81	109°11'47.17"	246,263.3962	TO BE ESTABLISHED
56	56	1.81	109°11'47.17"	246,240.6081	TO BE ESTABLISHED
57	57	1.81	109°11'47.17"	246,217.8200	TO BE ESTABLISHED
58	58	1.81	109°11'47.17"	246,195.0319	TO BE ESTABLISHED
59	59	1.81	109°11'47.17"	246,172.2438	TO BE ESTABLISHED
60	60	1.81	109°11'47.17"	246,149.4557	TO BE ESTABLISHED
61	61	1.81	109°11'47.17"	246,126.6676	TO BE ESTABLISHED
62	62	1.81	109°11'47.17"	246,103.8795	TO BE ESTABLISHED
63	63	1.81	109°11'47.17"	246,081.0914	TO BE ESTABLISHED
64	64	1.81	109°11'47.17"	246,058.3033	TO BE ESTABLISHED
65	65	1.81	109°11'47.17"	246,035.5152	TO BE ESTABLISHED
66	66	1.81	109°11'47.17"	246,012.7271	TO BE ESTABLISHED
67	67	1.81	109°11'47.17"	245,990.9390	TO BE ESTABLISHED
68	68	1.81	109°11'47.17"	245,968.1509	TO BE ESTABLISHED
69	69	1.81	109°11'47.17"	245,945.3628	TO BE ESTABLISHED
70	70	1.81	109°11'47.17"	245,922.5747	TO BE ESTABLISHED
71	71	1.81	109°11'47.17"	245,900.7866	TO BE ESTABLISHED
72	72	1.81	109°11'47.17"	245,878.9985	TO BE ESTABLISHED
73	73	1.81	109°11'47.17"	245,857.2104	TO BE ESTABLISHED
74	74	1.81	109°11'47.17"	245,835.4223	TO BE ESTABLISHED
75	75	1.81	109°11'47.17"	245,813.6342	TO BE ESTABLISHED
76	76	1.81	109°11'47.17"	245,791.8461	TO BE ESTABLISHED
77	77	1.81	109°11'47.17"	245,770.0580	TO BE ESTABLISHED
78	78	1.81	109°11'47.17"	245,748.2700	TO BE ESTABLISHED
79	79	1.81	109°11'47.17"	245,726.4819	TO BE ESTABLISHED
80	80	1.81	109°11'47.17"	245,704.6938	TO BE ESTABLISHED
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82	82	1.81	109°11'47.17"	245,661.1176	TO BE ESTABLISHED
83	83	1.81	109°11'47.17"	245,639.3295	TO BE ESTABLISHED
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88	88	1.81	109°11'47.17"	245,530.3890	TO BE ESTABLISHED
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91	91	1.81	109°11'47.17"	245,465.0247	TO BE ESTABLISHED
92	92	1.81	109°11'47.17"	245,443.2366	TO BE ESTABLISHED
93	93	1.81	109°11'47.17"	245,421.4485	TO BE ESTABLISHED
94	94	1.81	109°11'47.17"	245,399.6604	TO BE ESTABLISHED
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96	96	1.81	109°11'47.17"	245,356.0842	TO BE ESTABLISHED
97	97	1.81	109°11'47.17"	245,334.2961	TO BE ESTABLISHED
98	98	1.81	109°11'47.17"	245,312.5080	TO BE ESTABLISHED
99	99	1.81	109°11'47.17"	245,290.7200	TO BE ESTABLISHED
100	100	1.81	109°11'47.17"	245,268.9319	TO BE ESTABLISHED
101	101	1.81	109°11'47.17"	245,247.1438	TO BE ESTABLISHED
102	102	1.81	109°11'47.17"	245,225.3557	TO BE ESTABLISHED
103	103	1.81	109°11'47.17"	245,203.5676	TO BE ESTABLISHED
104	104	1.81	109°11'47.17"	245,181.7795	TO BE ESTABLISHED
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108	108	1.81	109°11'47.17"	245,094.7271	TO BE ESTABLISHED
109	109	1.81	109°11'47.17"	245,072.9390	TO BE ESTABLISHED
110	110	1.81	109°11'47.17"	245,051.1509	TO BE ESTABLISHED
111	111	1.81	109°11'47.17"	245,029.3628	TO BE ESTABLISHED
112	112	1.81	109°11'47.17"	245,007.5747	TO BE ESTABLISHED
113	113	1.81	109°11'47.17"	244,985.7866	TO BE ESTABLISHED
114	114	1.81	109°11'47.17"	244,964.0000	TO BE ESTABLISHED
115	115	1.81	109°11'47.17"	244,942.2133	TO BE ESTABLISHED
116	116	1.81	109°11'47.17"	244,920.4267	TO BE ESTABLISHED
117	117	1.81	109°11'47.17"	244,898.6400	TO BE ESTABLISHED
118	118	1.81	109°11'47.17"	244,876.8533	TO BE ESTABLISHED
119	119	1.81	109°11'47.17"	244,855.0667	TO BE ESTABLISHED
120	120	1.81	109°11'47.17"	244,833.2800	TO BE ESTABLISHED
121	121	1.81	109°11'47.17"	244,811.4933	TO BE ESTABLISHED
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123	123	1.81	109°11'47.17"	244,767.9200	TO BE ESTABLISHED
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142	142	1.81	109°11'47.17"	244,353.9733	TO BE ESTABLISHED
143	143	1.81	109°11'47.17"	244,332.1867	TO BE ESTABLISHED
144	144	1.81	109°11'47.17"	244,310.4000	TO BE ESTABLISHED
145	145	1.81	109°11'47.17"	244,288.6133	TO BE ESTABLISHED
146	146	1.81	109°11'47.17"	244,266.8267	TO BE ESTABLISHED
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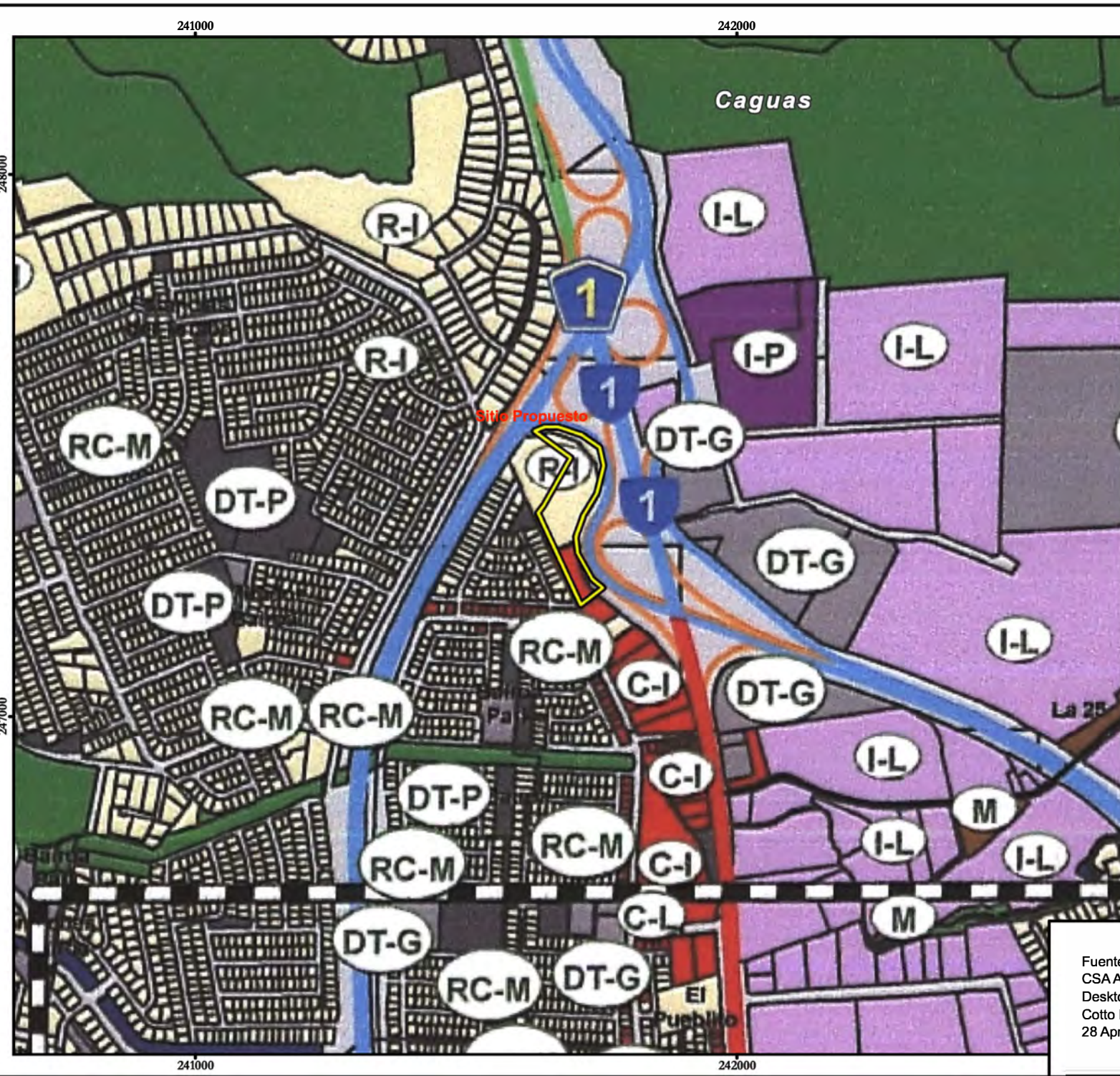
Figure 37: Caguas Project Land Use Classification Map



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Figure 38: Caguas Zoning Map

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Scale: 1:10,000



Legend

Caguas Project Parcel

Zoning Districts¹

- C-I: Commercial ("Comercial Intermedio")
- R-I: Residential ("Residencial Intermedio")

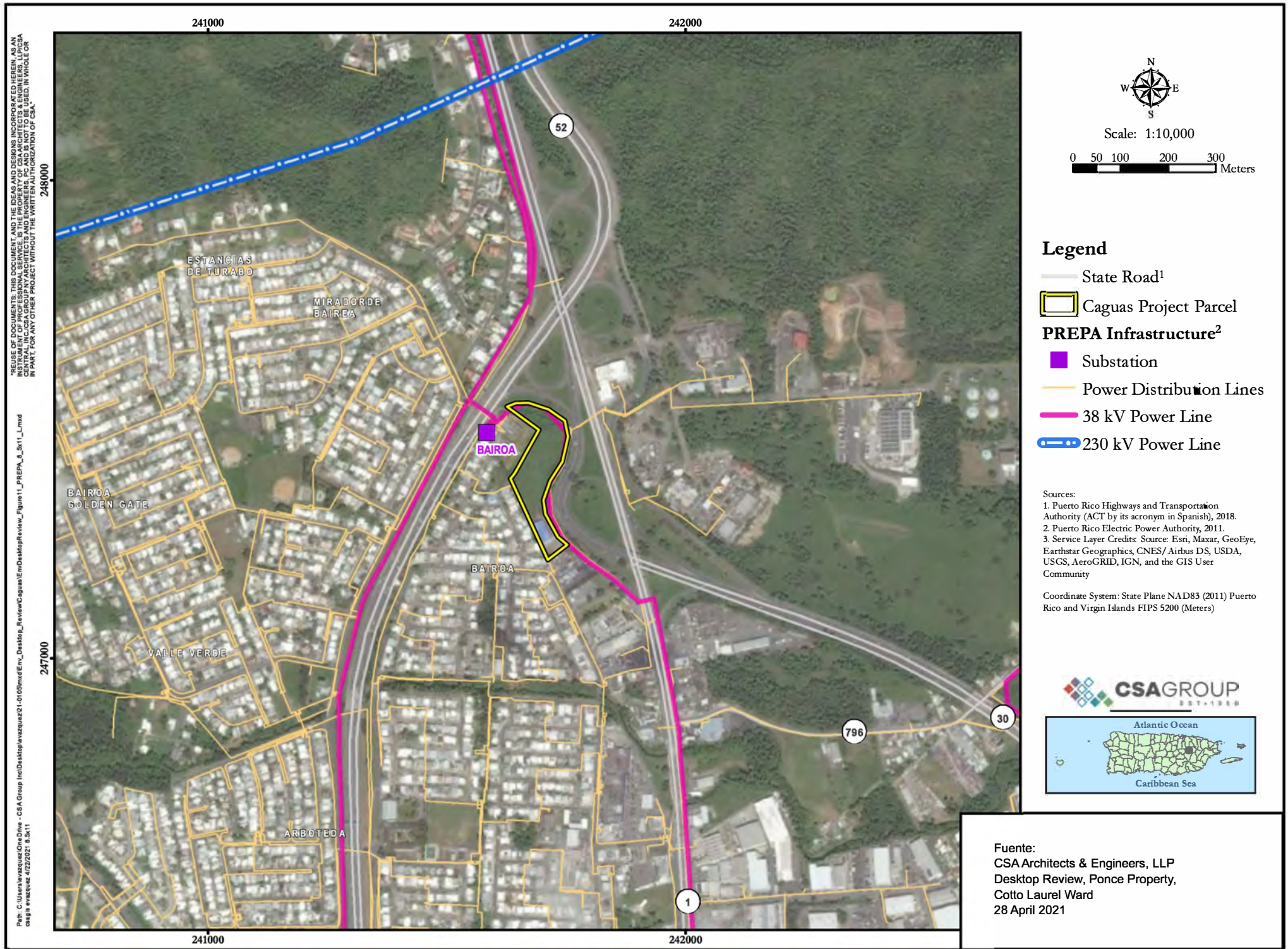
Source:
 1. Puerto Rico Planning Board, "Mapa de Calificación, Municipio de Caguas", eff. December 8, 2015.

Coordinate System: NAD 1983 (2011) State Plane Puerto Rico Virgin Islands FIPS 5200 (Meters)





Fuente:
 CSA Architects & Engineers, LLP
 Desktop Review, Ponce Property,
 Cotto Laurel Ward
 28 April 2021







Figure 39: Caguas Project Existing Infrastructure (PREPA)



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 Scale: 1:10,000


- Legend**
-  State Road¹
 -  Caguas Project Parcel
 - PREPA Infrastructure²**
 -  Substation
 -  Power Distribution Lines
 -  38 kV Power Line
 -  230 kV Power Line

Sources:

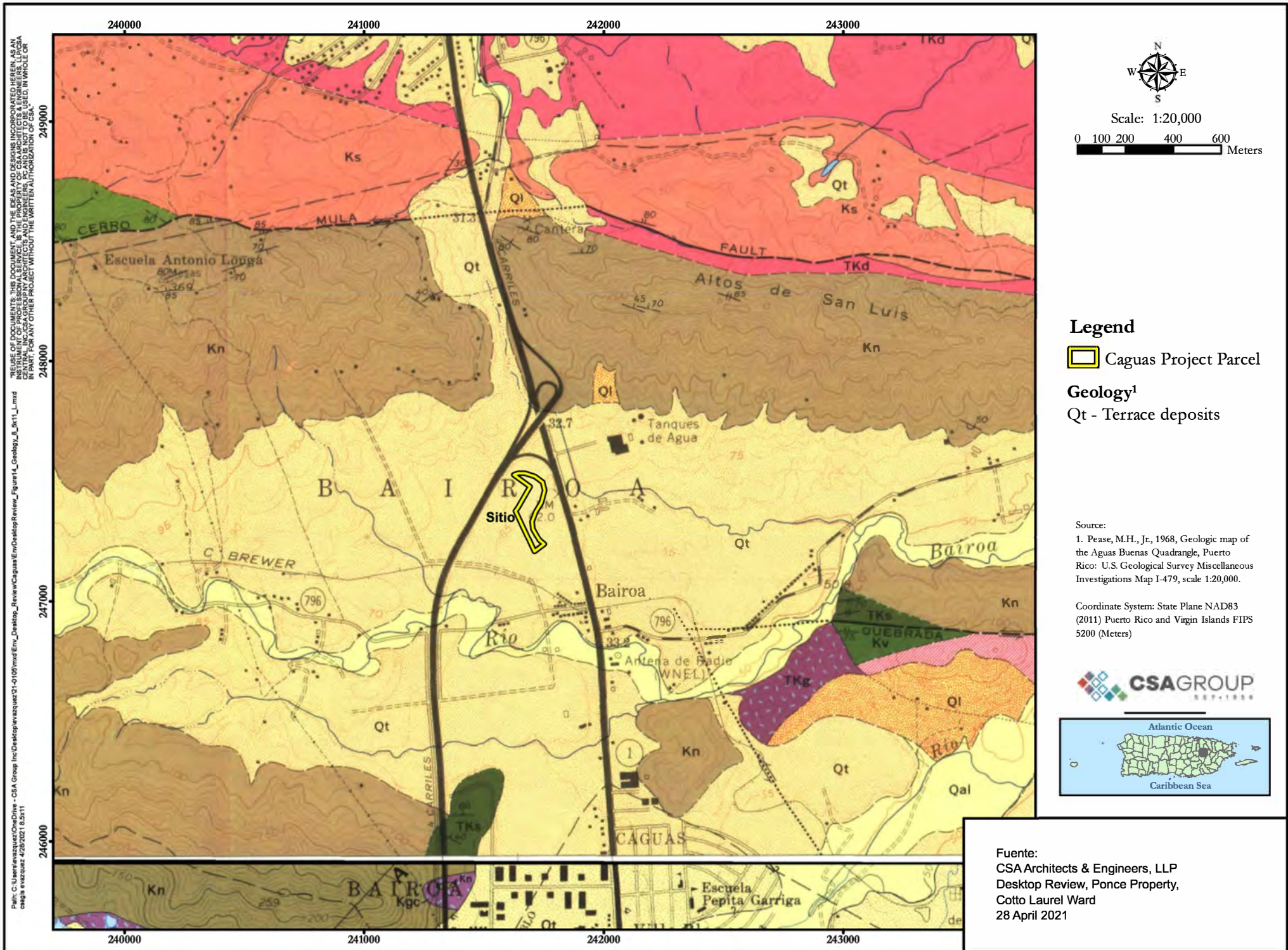
1. Puerto Rico Highways and Transportation Authority (ACT by its acronym in Spanish), 2018.
2. Puerto Rico Electric Power Authority, 2011.
3. Service Layer Credits. Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Coordinate System: State Plane NAD83 (2011) Puerto Rico and Virgin Islands FIPS 5200 (Meters)





Fuente:
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 Desktop Review, Ponce Property,
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 28 April 2021


Figure 40: Caguas Project Geologic Map



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 csaga evazquez 4/28/2021 8:26:11


 Scale: 1:20,000


Legend

 Caguas Project Parcel

Geology¹

Qt - Terrace deposits

Source:
 1. Pease, M.H., Jr., 1968, Geologic map of the Aguas Buenas Quadrangle, Puerto Rico: U.S. Geological Survey Miscellaneous Investigations Map I-479, scale 1:20,000.

Coordinate System: State Plane NAD83 (2011) Puerto Rico and Virgin Islands FIPS 5200 (Meters)

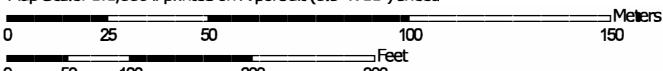



Fuente:
 CSA Architects & Engineers, LLP
 Desktop Review, Ponce Property,
 Cotto Laurel Ward
 28 April 2021

Figure 41: Caguas Project Soil Classification Map



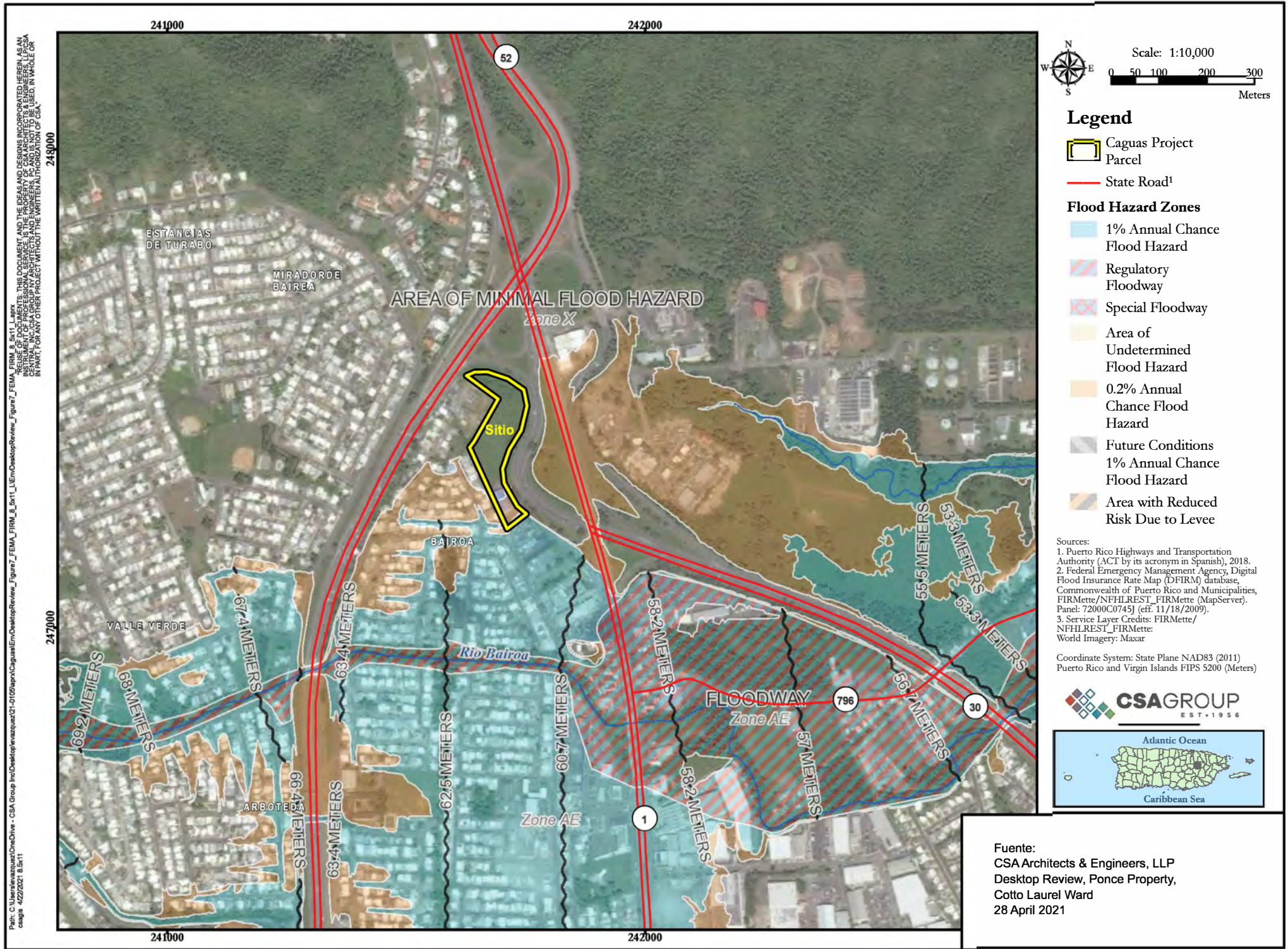
Map Scale: 1:1,880 if printed on A portrait (8.5" x 11") sheet.



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



Figure 42: Caguas Project Flood Zones (FEMA)

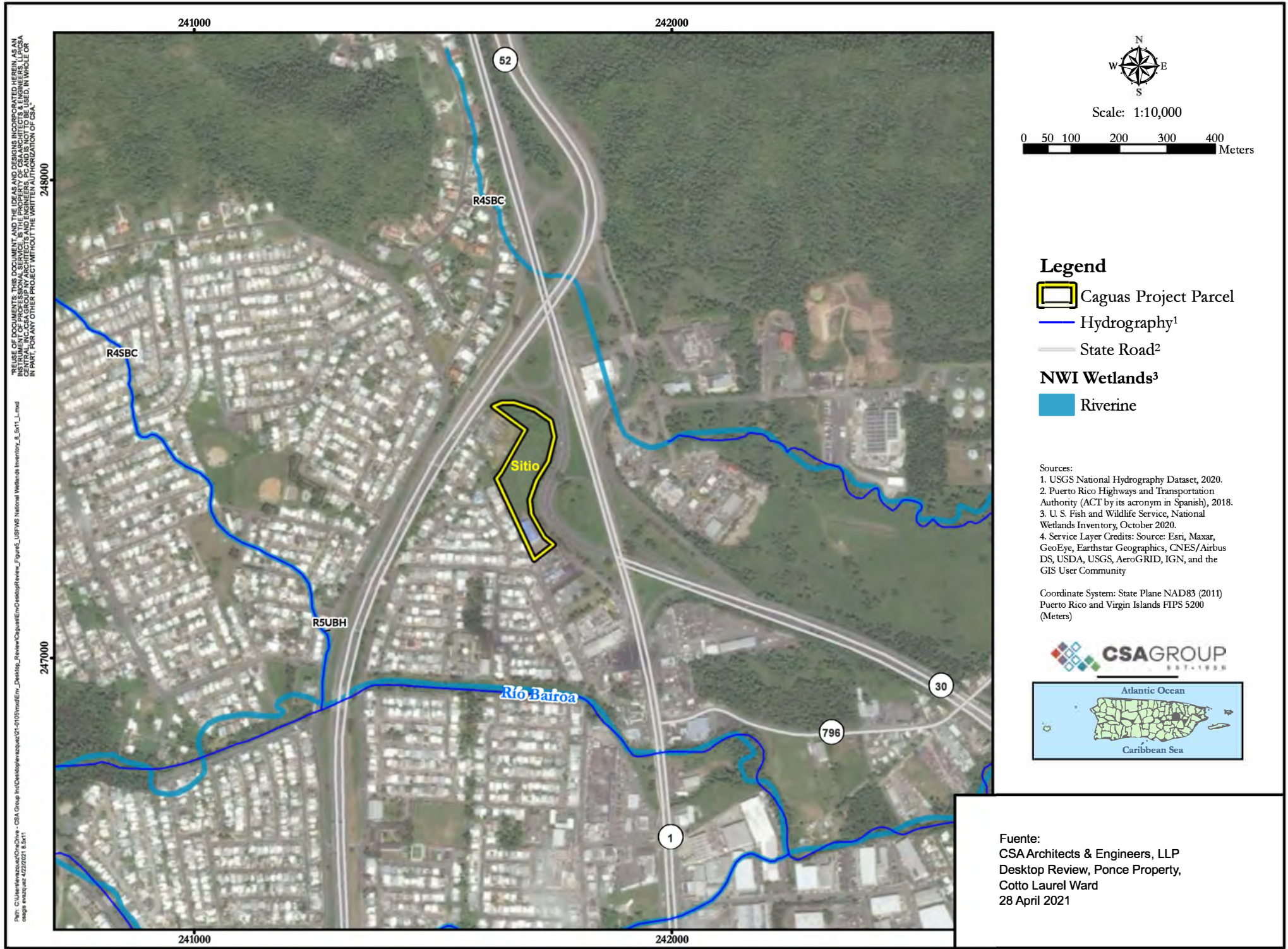


- Legend**
- Caguas Project Parcel
 - State Road¹
- Flood Hazard Zones**
- 1% Annual Chance Flood Hazard
 - Regulatory Floodway
 - Special Floodway
 - Area of Undetermined Flood Hazard
 - 0.2% Annual Chance Flood Hazard
 - Future Conditions 1% Annual Chance Flood Hazard
 - Area with Reduced Risk Due to Levee

Sources:
 1. Puerto Rico Highways and Transportation Authority (ACT by its acronym in Spanish), 2018.
 2. Federal Emergency Management Agency, Digital Flood Insurance Rate Map (DFIRM) database, Commonwealth of Puerto Rico and Municipalities, FIRMette/NFHLREST_FIRMette (MapServer). Panel: 72000C0745) (eff. 11/18/2009).
 3. Service Layer Credits: FIRMette/NFHLREST_FIRMette; World Imagery: Maxar

Fuente:
 CSA Architects & Engineers, LLP
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 Cotto Laurel Ward
 28 April 2021

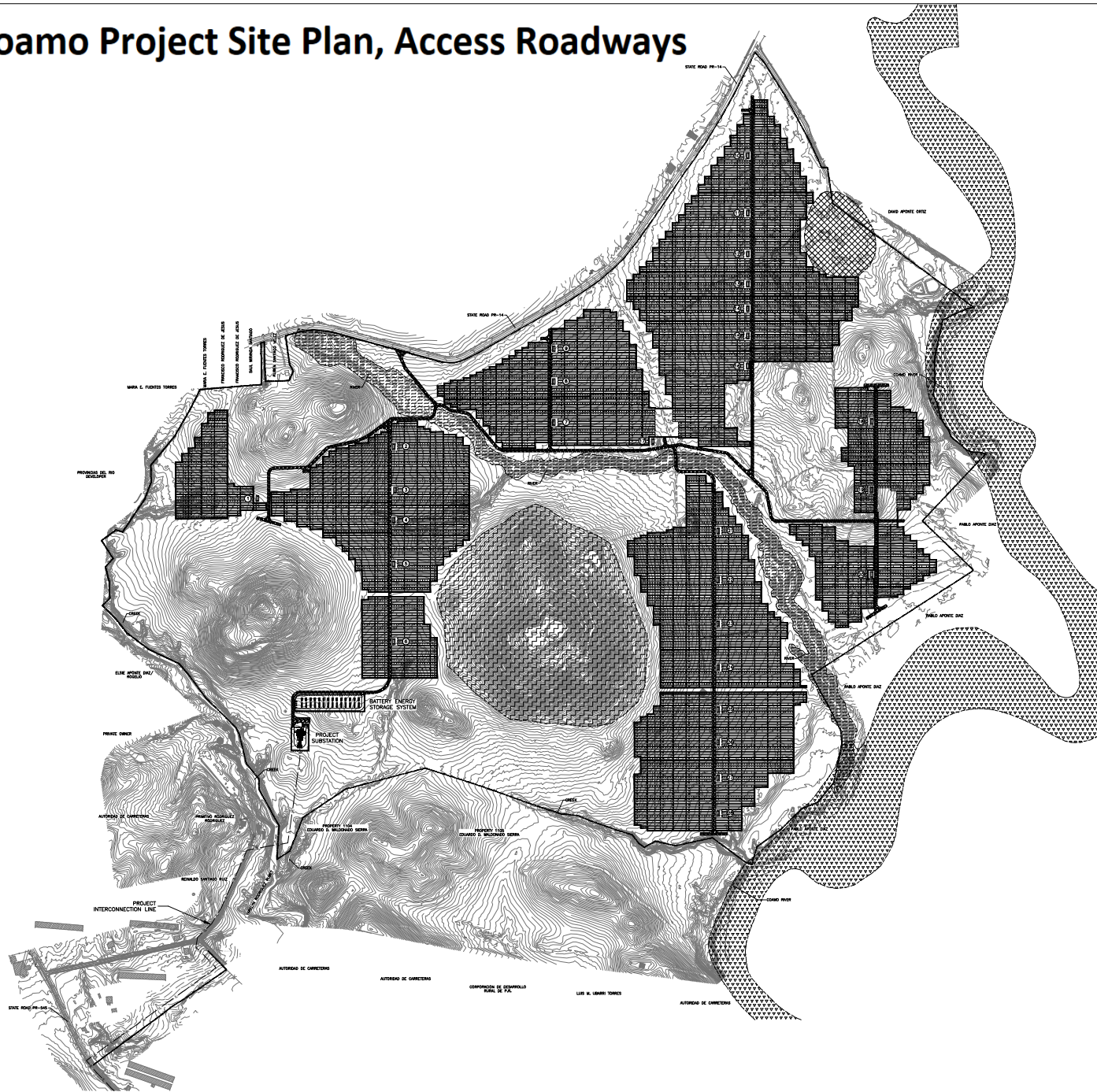
Figure 43: Caguas Project Wetlands (USFWS NWI)



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Path: C:\Users\mvaquez\OneDrive - CSA Group Inc\Desktop\mvaquez\01-0105\mvaquez\01-0105\mvaquez\Review\Caguas\EmDesktop_Review\Caguas\EmDesktop\Review_L_5x11_L.mxd
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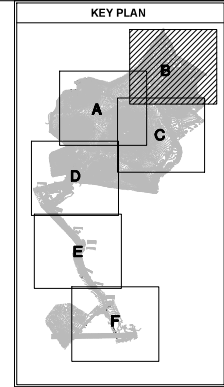
Figure 45: Coamo Project Site Plan, Access Roadways



GENERAL SITE PLAN
SCALE: 1:4000

DATE	11-27-23
REVISIONS DESCRIPTION	30% ENGINEERING DESIGN
NO	
A	
<p>PROJECT NAME AND ADDRESS COAMO SOLAR SAN ILDEFONSO WARD COAMO, PUERTO RICO</p>	
<p>SHEET TITLE GENERAL SITE PLAN</p>	
PROJECT NO.	23-007
DATE	11-27-23
PLANS NO.	0450
DRAWING BY	CESS
PLOT SCALE	AS SHOWN
<p>SHEET NO.</p> <p>G-100</p>	
ISSUE FOR COMMENTS	★
NOT FOR CONSTRUCTION	★

Figure 46.B: Coamo Project Site Plan, MVAC Trenches



- NOTES:**
- THIS DRAWING IS DIMENSIONAL AND INTENDED TO SHOW THE GENERAL TYPICAL ROUTING OF THE AC COLLECTION CONDUCTORS. THE AC COLLECTION CONDUCTORS SHALL BE INSTALLED TO SUIT ACTUAL FIELD CONDITIONS AND OTHER DESIGN PARAMETERS.
 - AC COLLECTION CABLE INSTALLATION MUST BE COORDINATED TO AVOID ALL OBSTRUCTIONS. REFER TO CONDUITING AND CABLE DRAWINGS FOR EQUIPMENT LOCATION COORDINATES, SPACING, AND UNDERGROUND OBSTRUCTIONS.
 - ALL CABLES CROSSING UNDER ANY SITE ACCESS SHALL BE RECESSED IN 6" x 6" PVC OR 2" x 2" x 8" ENCASED IN (3) INCHES OF LEAN CONCRETE APPROXIMATELY 20' AWAY FROM CONDUCTORS. IF CONDUCTORS WILL BE INDIVIDUALLY SLEEVED.

LOGO: ID

LOGO: DEP COM POWER

LOGO: CONVERGENT

NO.	REVISIONS DESCRIPTION	DATE
A	30% ENGINEERING DESIGN	11-27-23

**ISSUE FOR COMMENTS
NOT FOR CONSTRUCTION**

CERTIFICATION BY DESIGNER / DESIGNER'S CERTIFICATION:

DESIGNED FOR / ENCLOSED BY:

DESIGNED BY / ENCLOSED BY:

PROJECT NAME AND ADDRESS:
COAMO SOLAR
SAN ILDEFONSO WARD
COAMO, PUERTO RICO

SHEET TITLE:
ELECTRICAL
SITE PLAN
MATCHLINE B

PROPERTY NO.: 23-007

DATE: 11-27-23

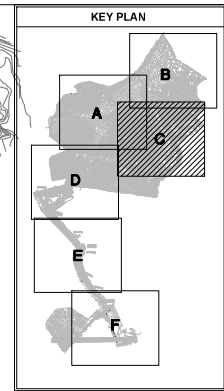
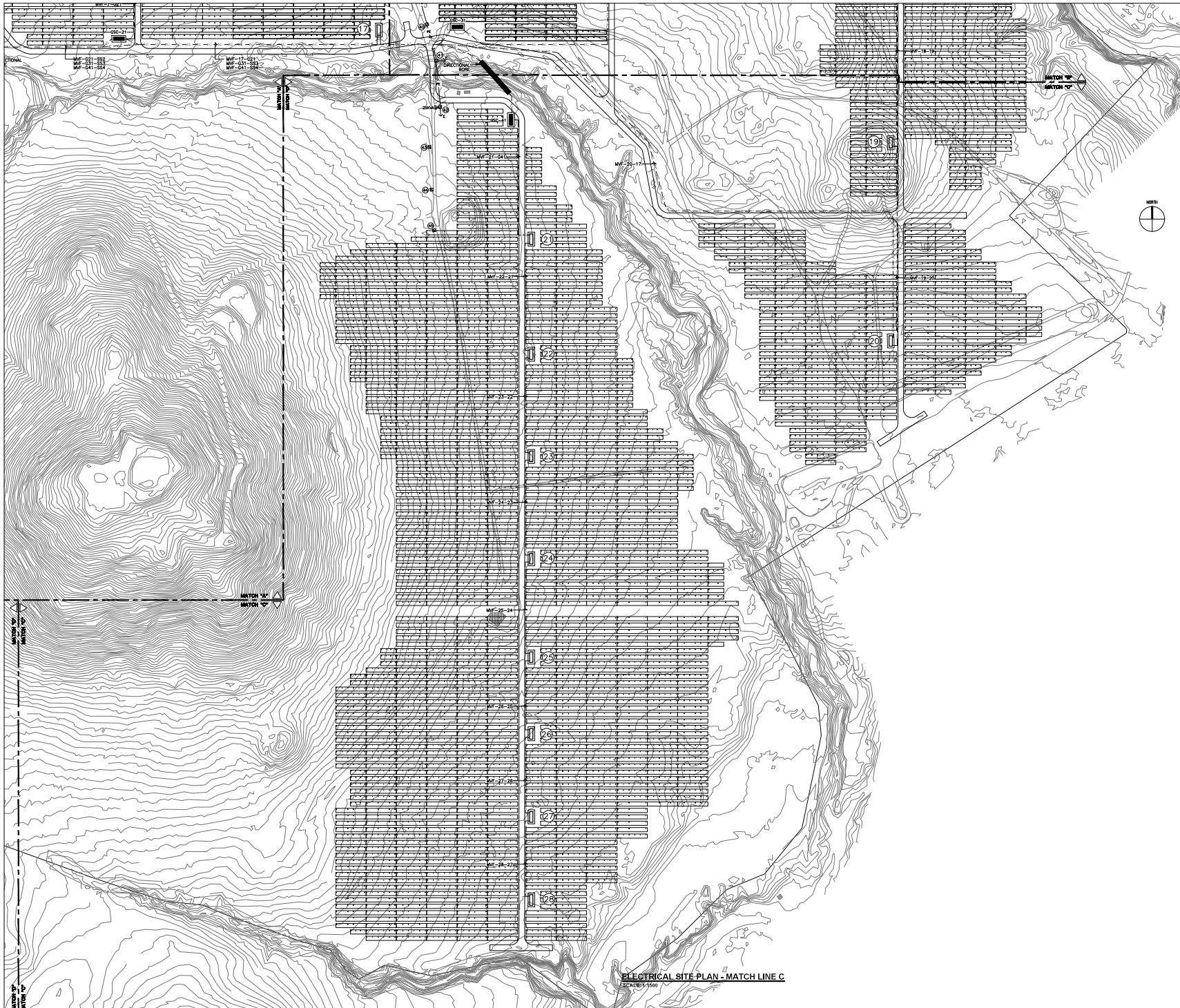
REVISIONS: PVP-0011

DRAWN BY: CESS

PLOT SCALE: AS SHOWN

SHEET NO.: PVP-E-0011

Figure 46.C: Coamo Project Site Plan, MVAC Trenches



- NOTES:**
1. THIS DRAWING IS DIMENSIONAL AND INTENDED TO SHOW THE GENERAL TYPICAL ROUTING OF THE AC COLLECTION CONDUCTORS. THE AC COLLECTION CONDUCTORS SHALL BE INSTALLED TO SUIT ACTUAL FIELD CONDITIONS AND OTHER DESIGN PARAMETERS.
 2. AC COLLECTION CABLE INSTALLATION MUST BE CONFORMANT TO ALL APPLICABLE REGULATIONS. REFER TO THE SPECIFICATIONS AND ALL DRAWINGS FOR EQUIPMENT LOCATION COORDINATES, SPACING, AND OTHER REQUIREMENTS.
 3. ALL CABLES CROSSING UNDER ANY SITE ACCESS SHALL BE RECESSED IN 6" x 6" PVC DUCT BERT & ENCASED IN (3) INCHES OF LEAN CONCRETE APPROXIMATELY 20" DEEP. ALL CONDUCTORS WILL BE INDIVIDUALLY SLEAVED.

NO.	REVISIONS DESCRIPTION	DATE
1	30% ENGINEERING DESIGN	11-27-23

**ISSUE FOR COMMENTS
NOT FOR CONSTRUCTION**

CERTIFICATION OF DESIGNER / DESIGNER'S CERTIFICATION:

I, the undersigned, certify that I am a duly licensed Professional Engineer in the State of Puerto Rico, and that I am the Designer of the above project. I have read and approved the design and construction of the project, and I am not aware of any false or misleading information in the design or construction of the project.

DESIGNER'S NAME AND ADDRESS:

PROJECT NAME AND ADDRESS:

PROJECT NO.: 23-007

DATE: 11-27-23

RELEASED BY: PVP-0012

DRAWN BY: CESS

PLAT SCALE: AS SHOWN

PROJECT TITLE: ELECTRICAL SITE PLAN MATCHLINE C

PROJECT NO.: 23-007

DATE: 11-27-23

RELEASED BY: PVP-0012

DRAWN BY: CESS

PLAT SCALE: AS SHOWN

PROJECT NO.: 23-007

DATE: 11-27-23

RELEASED BY: PVP-0012

DRAWN BY: CESS

PLAT SCALE: AS SHOWN

PROJECT NAME AND ADDRESS:

COAMO SOLAR

SAN ILDEFONSO WARD

COAMO, PUERTO RICO

PROJECT NO.: 23-007

DATE: 11-27-23

RELEASED BY: PVP-0012

DRAWN BY: CESS

PLAT SCALE: AS SHOWN

PROJECT TITLE: ELECTRICAL SITE PLAN MATCHLINE C

PROJECT NO.: 23-007

DATE: 11-27-23

RELEASED BY: PVP-0012

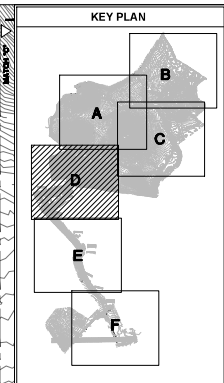
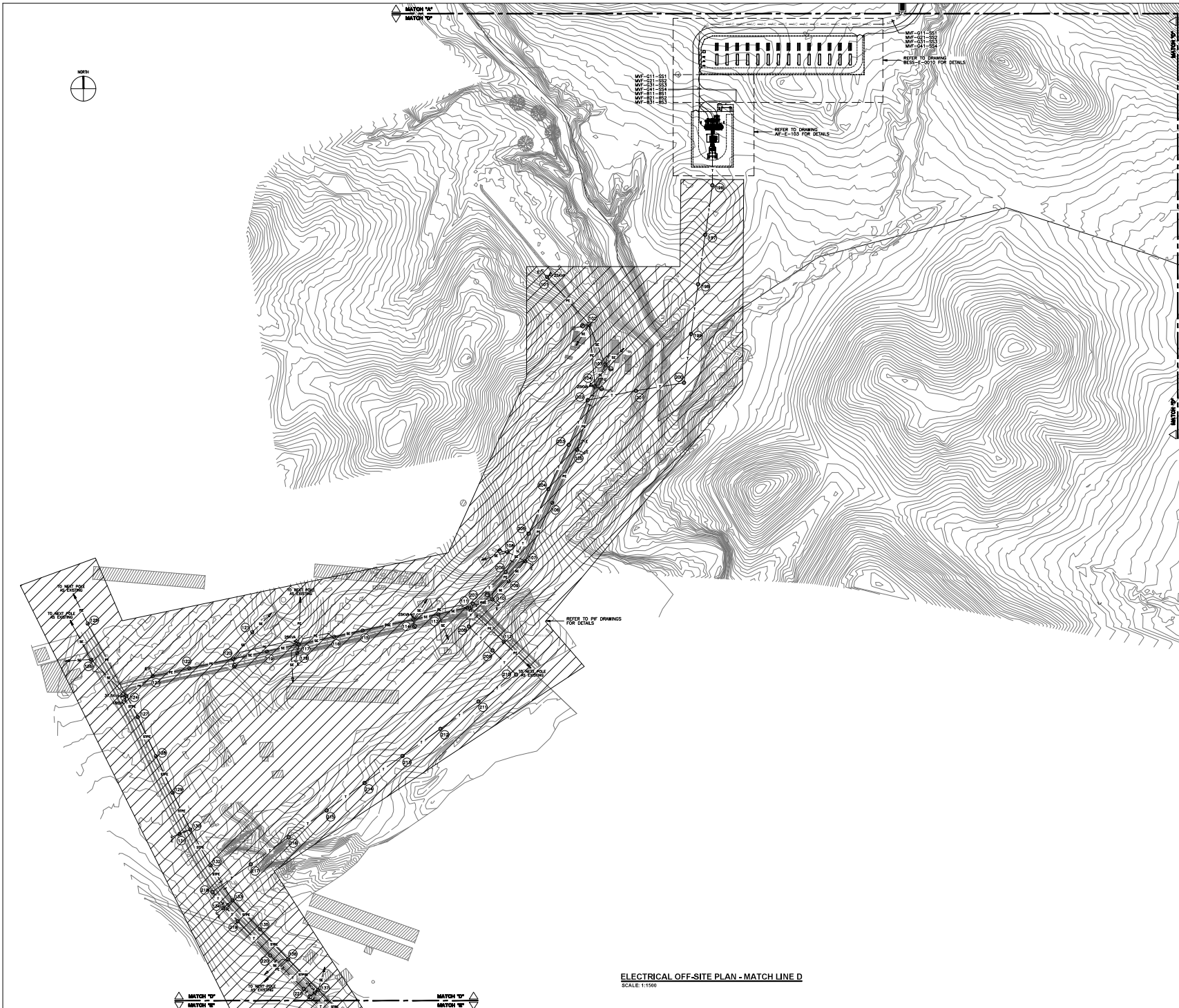
DRAWN BY: CESS

PLAT SCALE: AS SHOWN

ELECTRICAL SITE PLAN - MATCH LINE C

SCALE: 1/4"=1'-0"

Figure 46.D: Coamo Project Site Plan, MVAC Trenches



NOTES:

- THIS DRAWING IS DIMENSIONAL AND INTENDED TO SHOW THE DETAILED TYPICAL ROUTING OF THE AC COLLECTION CONDUCTORS. THE AC COLLECTION CONDUCTORS SHALL BE INSTALLED TO SUIT ACTUAL FIELD CONDITIONS AND OTHER DESIGN PARAMETERS.
- AC COLLECTION CABLE INSTALLATION MUST BE COORDINATED TO AVOID ALL OBSTRUCTIONS. REFER TO CONDUIT AND CABLE DRAWINGS FOR EQUIPMENT LOCATION COORDINATES, SPACING, AND UNDERGROUND OBSTRUCTIONS.
- ALL CABLES CROSSING UNDER ANY SITE ACCESS SHALL BE REINFORCED IN 6" PVC (SEE DETAIL) & ENCASED IN (3) INCHES OF LEAN CONCRETE APPROPRIATELY JOINTED. IF CONDUITS ARE BEING INDIVIDUALLY SLEEVED.

KEY PLAN

SECTION: A, B, C, D, E, F

DATE: 11-27-23

REVISIONS DESCRIPTION

NO.	REVISIONS DESCRIPTION
A	30% ENGINEERING DESIGN

NO.	REVISIONS DESCRIPTION
A	30% ENGINEERING DESIGN

ISSUE FOR COMMENTS
NOT FOR CONSTRUCTION

CERTIFICATION OF DESIGNER / DESIGNER'S CERTIFICATION:

PROJECT NAME AND ADDRESS:
COAMO SOLAR
SAN ILDEFONSO WARD
COAMO, PUERTO RICO

DESIGNED FOR / ENDORSED BY:

DATE: 11-27-23

REVISIONS DESCRIPTION:

NO.	REVISIONS DESCRIPTION
A	30% ENGINEERING DESIGN

PROJECT TITLE: ELECTRICAL SITE PLAN MATCHLINE D

PROJECT NUMBER: 23-007

DATE: 11-27-23

REVISIONS DESCRIPTION:

NO.	REVISIONS DESCRIPTION
A	30% ENGINEERING DESIGN

PROJECT NUMBER: 23-007

DATE: 11-27-23

REVISIONS DESCRIPTION:

NO.	REVISIONS DESCRIPTION
A	30% ENGINEERING DESIGN

PROJECT NUMBER: 23-007

DATE: 11-27-23

REVISIONS DESCRIPTION:

NO.	REVISIONS DESCRIPTION
A	30% ENGINEERING DESIGN

Figure 47: Coamo Site Views



Figure 48: PV/BESS Project Example



Convergent Solar-Plus-Storage Project (Maryland, USA).

Figure 49: Coamo Project Vegetation Types

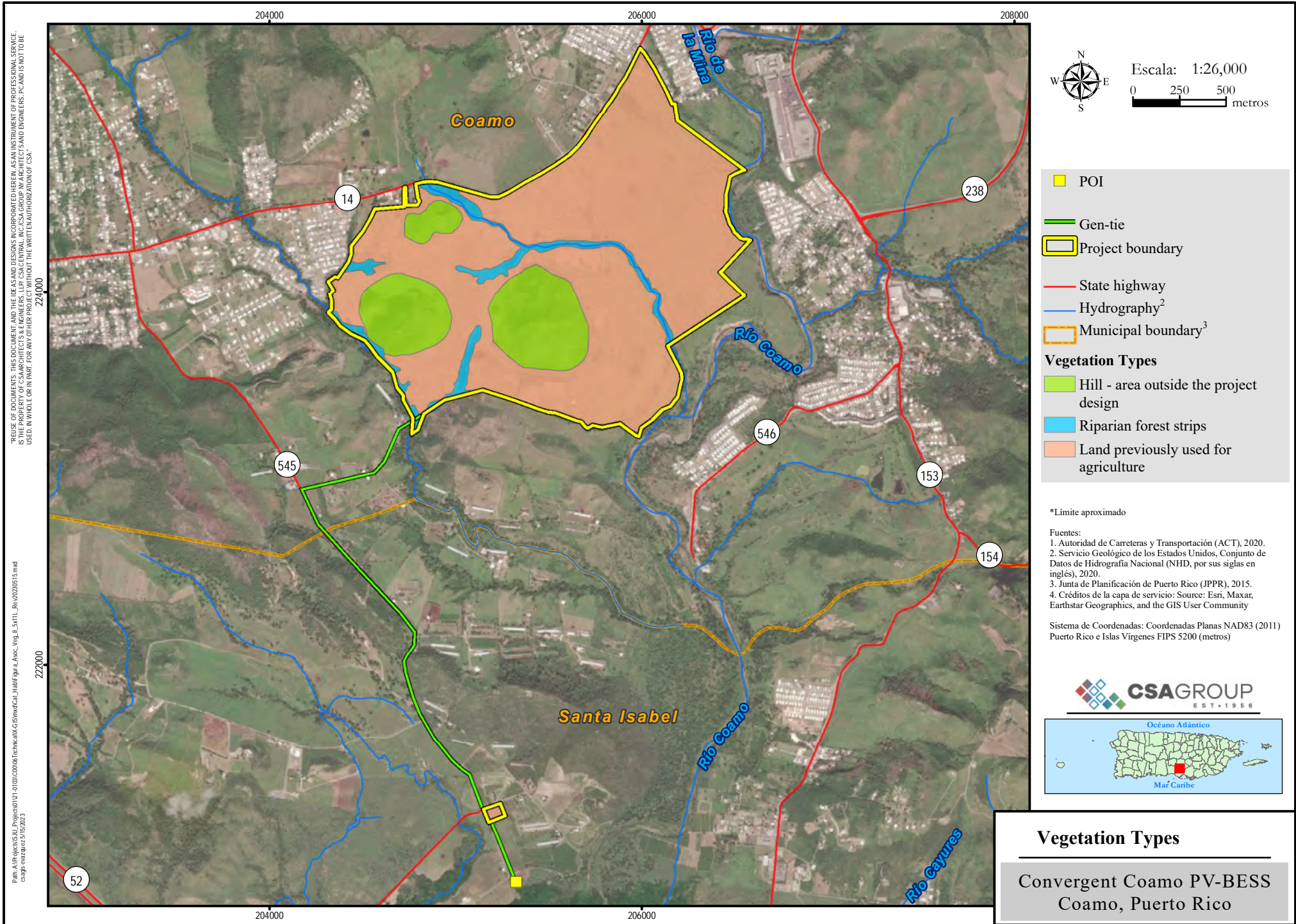


Figure 50: Riparian Forests in Coamo Project Area

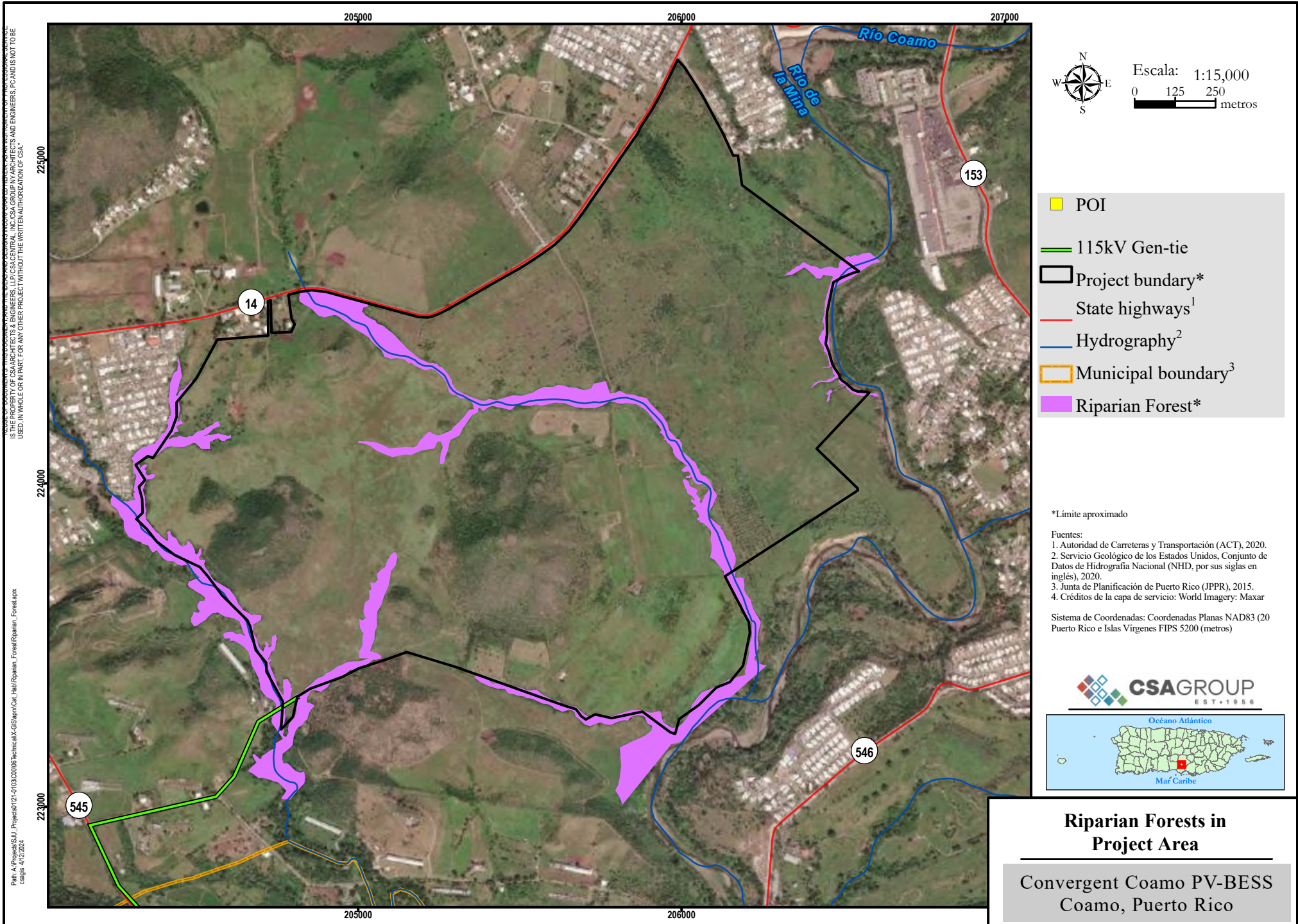
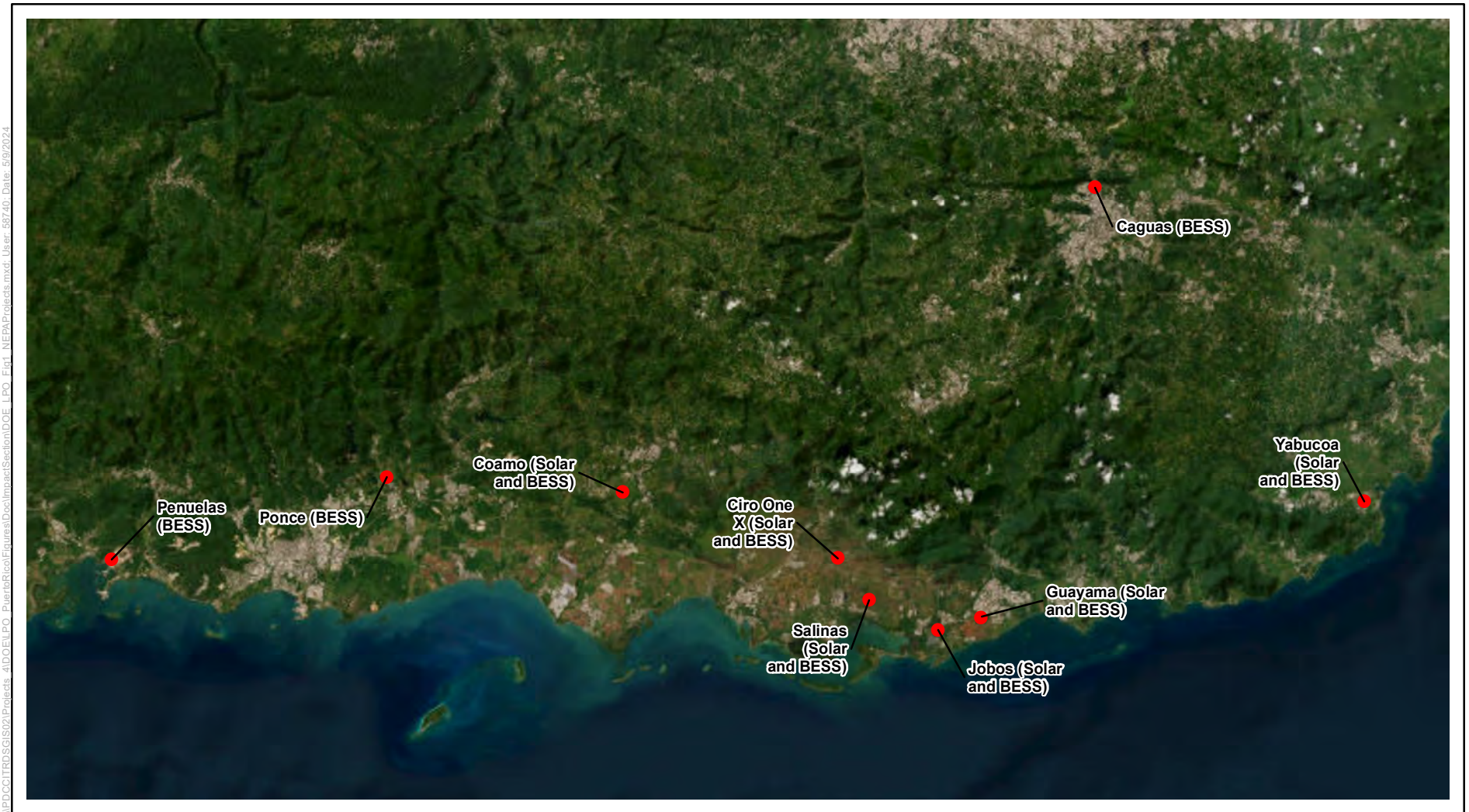
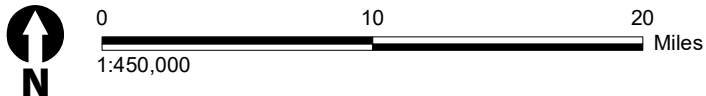


Figure 51: Solar Projects Under DOE NEPA Review



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● Project Locations



Department of Energy, Loan Programs Office
Project Locations

APPENDIX A AGENCY CORRESPONDENCE

Table A-1: Summary of Agency Coordination

Organization	Contact Date(s)	Summary of Contact/Correspondence*
Puerto Rico Office of the Governor	12/18/2023	Request to identify PR agencies to involve in the NEPA process
	12/19/2023	Distribution List Input Received
	01/23/2024	Request for PR agency contact information
	02/02/2024	Interagency Meeting – Virtual
	02/19/2024	Notice of Intent to Prepare an Environmental Assessment
	03/14/2024	Interagency Meeting – In Person
	08/26/2024	Notice of Availability of Draft Environmental Assessment
Puerto Rico State Historic Preservation Office (SHPO)	08/17/2023	Initial request for information
	09/15/2023	Virtual Coordination Meeting
	11/08/2023	Request for concurrence of findings and consultation under Section 106 of the National Historic Preservation Act
	12/04/2023 and 12/05/2023	SHPO concurrence received for Caguas and Penuelas BESS; Request for Reconnaissance Survey at Ponce BESS received; Request for Intensive Archeological Survey for Coamo PV
	02/02/2024	Interagency Meeting – Virtual
	03/11/2024	DOE submitted clarification of avoidance measures in place at Coamo PV
	03/20/2024	SHPO Concurrence received for Coamo PV
	07/25/2024	Updated Ponce Request for Concurrence Submitted
	08/26/2024	Notice of Availability of Draft Environmental Assessment
EPA Region 2, Environmental Review Section	02/19/2024	Notice of Intent to Prepare an Environmental Assessment
	08/26/2024	Notice of Availability of Draft Environmental Assessment
Puerto Rico Electric Power Authority (PREPA)	02/19/2024	Notice of Intent to Prepare an Environmental Assessment
	08/26/2024	Notice of Availability of Draft Environmental Assessment
Public-Private Partnerships Authority (P3)	02/19/2024	Notice of Intent to Prepare an Environmental Assessment
	08/26/2024	Notice of Availability of Draft Environmental Assessment
U.S. Fish and Wildlife Service (USFWS), Caribbean Ecological Services Field Office	01/30/2024	No Effect Determination – Caguas**
	02/19/2024	Notice of Intent to Prepare an Environmental Assessment
	03/15/2024	In-Person Coordination Meeting
	03/27/2024	Formal Consultation under Programmatic Biological Opinion – Coamo Submitted
	03/27/2024	No Effect Determination Letter Sent - Penuelas

Organization	Contact Date(s)	Summary of Contact/Correspondence*
	03/29/2024	No Effect Determination Letter Sent - Ponce
	05/03/2024	USFWS Concurrence Received - Coamo
	06/10/2024	Acknowledgement of No Effect Determination - Ponce
	07/09/2024	USFWS Acknowledgement of No Effect Determination - Penuelas
	08/26/2024	Notice of Availability of Draft Environmental Assessment
USDA Natural Resource Conservation Service	12/15/2023	Coordination Meeting
	02/19/2024	Notice of Intent to Prepare an Environmental Assessment
	03/13/2024	Initial FPPA AD1006 Form Submission
	03/18/2024	In-person Coordination Meeting
	03/27/2024	NRCS Returns Updated AD1006 Forms
	07/23/2024	Final AD 1006 Forms Submitted
	08/26/2024	Notice of Availability of Draft Environmental Assessment
Secretaría Auxiliar de Permisos, Endosos y Servicios Especializados, Departamento de Recursos Naturales y Ambientales	02/19/2024	Notice of Intent to Prepare an Environmental Assessment
	03/14/2024	In-Person Coordination meeting
	08/26/2024	Notice of Availability of Draft Environmental Assessment
Unidad de Zona Costanera, Oficina de Geología e Hidrogeología, Junta de Planificación	02/02/2024	Federal Consistency Review Process Meeting
	02/05/2024	Federal Consistency Review Instructions Received
	02/19/2024	Notice of Intent to Prepare an Environmental Assessment
	04/10/2024	Consistency Review Submitted
	04/30/2024	Revised Consistency Review Submitted
	08/26/2024	Notice of Availability of Draft Environmental Assessment

*Correspondence in **bold text** is included in Appendix A.

**Federal agency no effect determinations do not require further Section 7 Consultation with USFWS

Table A-2

Public Comments on Convergent Puerto Rico Photovoltaic and Battery Energy Storage System Portfolio			
Comment No	Commenter	Comment Summary	Response
1	U.S. Environmental Protection Agency (EPA)	EPA suggests the Lead Agency consider developing an adaptive management plan in partnership with the appropriate local agencies to respond to unforeseen impacts in low-income and minoritized communities throughout the construction phase.	Comment noted. At this time, DOE does not intend to prepare an adaptive management plan because LPO utilizes Community Benefits Plans (CBPs) to show how projects support an equitable clean energy future and engagement with local communities. In their CBP the Applicant discusses how they are engaging and will engage with the neighboring communities and stakeholders affected by the proposed project. Applicants are required to submit detailed CBPs as part of the application process, with a final version with measurable performance metrics required for the finalization of any loan guarantee agreement. The CBP will be publicly available at loan closing and LPO will provide the final CBP on its website.
2	EPA	Purpose and Need: Please consider specifying how much of the PR100 goal will be met by the operation of these facilities which in turn could be helpful for public understanding of the benefits of this proposed action.	DOE's purpose and need relates to its authority under Section 1706 of Title 17 of the Energy Policy Act of 2005. Section 1.3 of the Environmental Assessment has been updated to reflect the following: Relative to PREPA's original Tranche 1 procurement plan, the project represents 10% of the renewable energy generation and 45% of storage capacity. Together, the project represents about 22% of the Tranche 1 energy solicitation.
3	EPA	Environmental Justice: Analyze in accordance with EO 14096 and clarify how communities are potentially affected:	LPO notes that EJ Screen was used for the evaluation of affected communities in Section 3.9.2. The convergent power purchase and operating agreement (PPOA) was executed with PREPA on June 30, 2022, and has been publicly available on the PREB docket for over two years. As noted in response to Comment 1, the US Department of Energy Loan Programs Office requires applicants to submit a community benefits plan. LPO supports applicants to ensure their project planning and applications, including CBPs, sufficiently address the four key pillars of community

		<p>jobs and justice that LPO considers when evaluating applications. LPO considers how projects:</p> <ul style="list-style-type: none">• Support meaningful community and labor engagement.• Invest in America’s workforce.• Advance diversity, equity, inclusion, and accessibility in the workplace.• Contribute to President Biden's Justice40 goal that 40% of the overall benefits of clean energy investment flow to disadvantaged communities. <p>Convergent Energy and Power, Inc. (CEP, The Applicant) is actively engaging with the community, elected leaders, and local businesses. Convergent’s Community Benefits Plan (CBP) Workforce Development: CEP has designated an on-island project manager who will serve as the Community Jobs lead who will work with the EPC contractor (DEPCOM) and subcontractors (Lord Electric), as well as a local Community Outreach and Justice Lead. The Community Outreach and Justice Lead will oversee community and social impact programs and partnerships together with a cross-functional CEP project team. To help facilitate the workforce development aspect of our CBP, CEP is engaged with local leaders, including the Secretary of the Puerto Rico Department of Economic Development and Commerce and the Secretary of the Department of Labor and Human Resources. CEP has met with the Puerto Rico Department of Labor, the U.S. Department of Labor and representatives from state and local workforce development programs and are working with the Association of Renewable Energy Producers (“APER”) to create an industry wide workforce development plan. This collaboration is essential for CEP to deliver on Community and Labor Engagement; Quality Jobs and Job Continuity; Diversity, Equity, Inclusion, and Accessibility; and Justice40 priorities. The Community Benefits Plan (“CBP”) delivered to DOE describes the planned engagement</p>
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			<p>activities, targets, and intended benefits of the Project on the local communities and across Puerto Rico as a whole.</p> <p>Impact on Disadvantaged Communities: All of Puerto Rico is classified as a Disadvantaged Community and therefore all benefits resulting from the Project are J40 Benefits. CEP is committed to ensuring that the community – specifically Coamo, Caguas, Ponce, and Penuelas, as well as Puerto Rico writ large – benefits from the Projects. According to the Federal Government’s Climate and Economic Justice Screening Tool (“CEJST”), the communities surrounding the Project fall between the 85th and 98th percentile for energy costs, and the 90th percentile for low income. Additionally, the communities fall around the 95th percentile for poverty and around the 30th percentile for people whose formal school education is less than a high school diploma. Further, one of the Convergent Projects is located within municipalities that are classified as Energy Communities according to the DOE Energy Community Tax Credit Bonus mapping tool, making the Project eligible for the extra 10% ITC benefit for the “Energy Community”. The Project provides the following Justice40 benefits: (i) a decrease in energy burden; (ii) a decrease in environmental exposure and burdens; (iii) an increase in high quality job creation, the clean energy job pipeline, and job training for individuals; (iv) increases in clean energy enterprise creation and contracting; and (v) an increase in energy resilience.</p> <p>To track the benefits in line with Justice40, the Sponsor is actively developing community specific key performance indicators (“KPIs”) and reporting mechanisms that will be defined in the final version of the CBP, which may evolve over time to better meet the needs of the community.</p> <p>Interaction with Local Community Leaders: Convergent has held numerous meetings and continues to have ongoing dialogue and updates with key members of the local jurisdictions in which it is developing its energy producing</p>
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			<p>and energy storage facilities. In the municipality of Coamo, Convergent has met multiple times with the mayor, deputy mayor, head of economic development, and other elected officials to review the project’s benefits and potential areas of impact. The Coamo project, which includes an approximately 300-acre solar farm, is the most visible of the four Convergent Projects and requires the most local engagement. The mayor officially endorsed the project in a letter dated August 2023. Given that the interconnection route traverses the neighboring municipality of Santa Isabel, Convergent has held meetings with the Mayor and deputy mayor of the municipality. The Mayor of Santa Isabel has also formally offered his support of the project.</p> <p>With respect to the BESS projects in Caguas, Penuelas and Ponce, Convergent visited and presented the projects to the Mayor of each of these three municipalities and received their official endorsements.</p> <p>Convergent has met with state level officials at various points of implementation including the office of the Governor, the Governor’s energy office, the Puerto Rico Senate and House of Representatives, the Puerto Rico Economic Development Department, the Housing Department, the Public Private Partnership Authority (in their capacity as PREPA’s administrator of PPP contracts).</p> <p>Community Organization Support: Convergent is currently fielding and refining proposals from two community organizations, the Center for Puerto Rico (Centro Para Puerto Rico) and the Puerto Rico Land Trust (Para La Naturaleza). These proposals are focused on providing financial and volunteer support during the construction and operational phases of our projects. Convergent has met formally with both organizations twice and they are refining their proposals based on DOE and Convergent positive impact goals.</p>
4	EPA	Consider alternatives to PV solar on agricultural land	CEP applied for a loan guarantee pursuant to the U.S. Department of Energy (DOE) Title XVII Energy

		<p>Infrastructure Reinvestment Program, as authorized by the Energy Policy Act of 2005 (EPAAct), as amended. Under Title XVII, DOE is authorized to provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment in the United States. The DOE Loan Programs Office (LPO) has reviewed the application in accordance with 10 Code of Federal Regulations (CFR) Parts 609.3 and 609.5, and has determined that the CEP project is an eligible project for consideration of Federal financial assistance. The CEP project is composed of four individual project sites – one solar photovoltaic and battery energy storage system (BESS) project in Coamo, Puerto Rico, and three stand-alone BESS projects in Penuelas, Ponce, and Caguas, Puerto Rico.</p> <p>The decision as to whether to provide Federal financial assistance (a loan guarantee) constitutes a major Federal action, which requires DOE to conduct an environmental review under the National Environmental Policy Act (NEPA), and in accordance with DOE implementation regulations (10 CFR 1021.400), DOE LPO has determined that an Environmental Assessment is the appropriate level of NEPA review for this Project.</p> <p>As provided in Section 1.2 of DOE/EA-2269, the purpose and need for DOE’s proposed action, the issuance of a federal loan guarantee, is to implement DOE’s authority under Title XVII of the EPAAct, which was reauthorized, amended, and revised by the Inflation Reduction Act of 2022, to create the Energy Infrastructure Reinvestment Program (EIR Program) (Section 1706). The purpose of the EIR Program is to finance projects and facilities in the U.S. that retool, repower, repurpose, or replace energy infrastructure that has ceased operations or enable operating energy infrastructure to avoid, reduce, utilize, or sequester</p>
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			<p>air pollutants or anthropogenic emissions of greenhouse gases (GHGs) (42 U.S.C. 16517[a][2]).</p> <p>In accordance with DOE’s authority under Title XVII of the EAct (10 CFR 609), the reasonable range of alternatives that are technically and economically feasible and meet the purpose and need for the proposed action, are limited to DOE’s proposed action (providing Federal financial support), or the no action alternative (not providing Federal financial support) for the eligible project as proposed by the Applicant.</p> <p>Therefore, DOE LPO has prepared DOE/EA-2269 in accordance with the National Environmental Policy Act (NEPA), 42 United States Code [U.S.C.] 4321 et seq., the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021). LPO is using the NEPA process to inform its decision as to whether to provide Federal financial support (issue a loan guarantee) to the Applicant to support the eligible project.</p> <p>LPO notes that DOE is also investing in distributed solar in Puerto Rico, and is supporting the Programa Acceso de Solar, which provides solar panels and battery storage systems to low-income households in Puerto Rico with zero upfront costs. Project Hestia, which includes the sale of distributed energy resources to homeowners for the installation of rooftop solar and battery storage, is also available in Puerto Rico.</p>
5	EPA	Describe how the project has been designed to withstand potential impacts due to extreme weather events.	<p><u>Coamo</u></p> <p>Section 3.3.3 of the EA, presents a discussion of stormwater runoff, which would be mitigated using retention ponds, vegetative buffers, and drainage infrastructure to ensure</p>

			<p>runoff is maintained at or below current levels. In addition, Section 3.3.1 has been updated with the following information:</p> <p>Three (3) detention ponds featuring multistage outlet structures and 200-year emergency spillways will be constructed to ensure that stormwater runoff is maintained at or below current levels. In addition, the implementation of vegetative buffer zones, along with the discharge of water from detention basins into “level spreaders,” will help to mitigate erosive discharges by directing runoff through rough surfaces. To further enhance stormwater management, low-impact development practices will be established during the construction phase. This includes planned vehicle pathing and minimizing impervious surfaces, which will help reduce soil compaction and mitigate other impacts that could adversely affect the site’s storm response. Regular maintenance will be conducted to ensure that conveyance capacity remains optimal and is not limited by sediment accumulation.</p> <p><u>Caguas, Penuelas, and Ponce</u></p> <p>The hydrologic and hydraulic studies are still underway for the BESS Projects; however, the results will inform the stormwater design measures similar to that of Coamo and will ensure that runoff will not increase over existing conditions. All stormwater measures will be designed and constructed according to all federal, state, and local guidelines.</p>
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Department of Energy

Washington, DC 20585

February 19, 2024

Omar A. Vega-Albino
Senior Advisor to Energy Affairs
Office of the Governor
PO Box 9020082
San Juan, PR 00902-0082

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

Dear Mr. Vega-Albino,

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 (EIR) in the United States and U.S. territories.

DOE is evaluating whether to provide a federal loan guarantee to Convergent Ashford Development LLC (the Applicant), to support one proposed solar PV installation and four BESS in the municipalities of Coamo, Santa Isabel, Peñuelas, Guayanilla, Ponce and Caguas, Puerto Rico (Project). The PV installations will provide electricity to the distribution network of the Puerto Rico Electric Power Authority (PREPA). The decision to prepare an EA for the Project was made in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

The purpose and need for agency action is to comply with the DOE mandate under Title XVII of the EPAct to select projects for loan guarantees that are consistent with the goals of the Act. The DOE LPO has determined that the Project as proposed by the Applicant, is eligible pursuant to Section 1706 of EPAct and is using the NEPA process to assist in determining whether to issue a loan guarantee to Clean Flexible Energy LLC to support the development of the Project. A goal of DOE's financial assistance for EIR projects is to support the construction of and startup of projects and energy technologies that avoid, reduce, or sequester anthropogenic emission of greenhouse gases.

The Applicant proposes to construct the Project at four separate sites, known as Coamo, Peñuelas, Ponce, and Caguas (Figures 1-4). Preliminary site plans are provided as attachments.

At the “Coamo” site, the Applicant will construct and operate a 100 MW solar PV facility and 55 MW BESS on a 630 acre property, 322 acres of which will be developed with PV and BESS. It is located south of Highway PR-14 in the Los Llanos and San Ildefonso wards of the Coamo municipality (see Figure 1). The Project includes a 30,000 square foot (sq. ft.) substation and 400 sq ft. maintenance structure. In addition, a 115 kV interconnection line will run through the PR-545 highway easement and private easements for 2.2 miles to the switchyard in Jauca 2 ward of the municipality of Santa Isabel.

“Peñuelas” is a 100 MW BESS on 5.5 acres located between the municipalities of Peñuelas and Guayanilla, between the wards of Tallaboa Poniente and Cedro (see Figure 2). The Project includes a 30,000 sq. ft. substation and 400 sq. ft. maintenance structure. The Project will interconnect via an approximately 800-foot, 115-kV connection to the Costa Sur SP Transmission Center, which is directly adjacent to the Project across State Road PR-127.

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Respectfully,

David Oster
Environmental Protection Specialist
Loan Programs Office

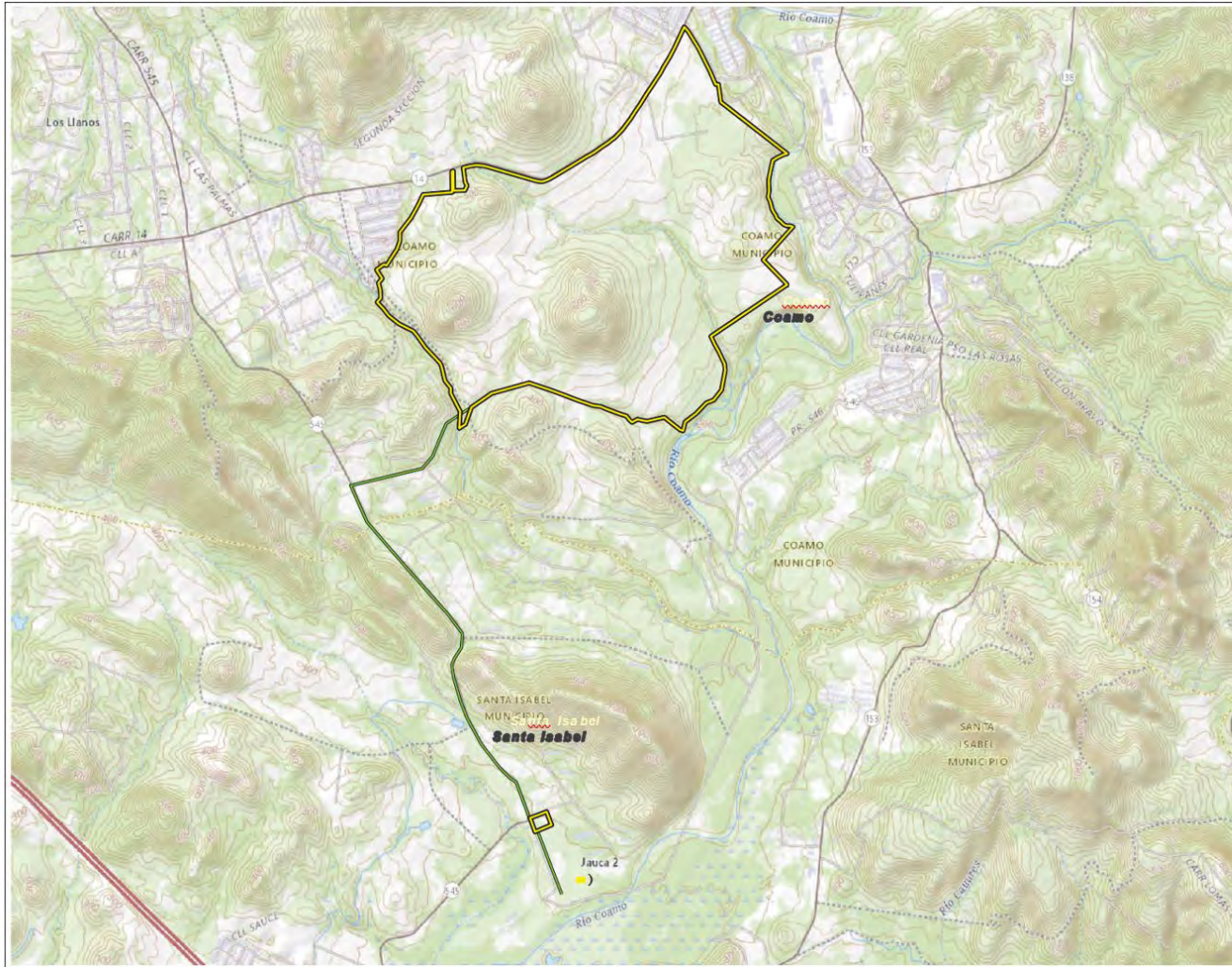
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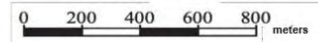
CC:

Hon. Rafeal Maldonado, Departamento de Recursos Naturales y Ambientales
Dave Kleusner, U.S. Environmental Protection Agency
Lcdo. Samuel Acosta Camacho, Departamento de Recursos Naturales y Ambientales
Carlos R. Fajardo Verdejo, Departamento de Recursos Naturales y Ambientales
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Manual Matos, Natural Resource Conservation Service
Carlos Rubio-Canela, State Historic Preservation Office
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales

Figure 1: Coamo Project Location Map



Scale: 1:20,000



X: 205,550.865 m
Y: 224,427.811 m

Coordinate Reference System:
World Geodetic System 1984 ensemble
(WGS 84 3D)

- Legend:
- Interconnection Point
115 kV Line
 - 115 kV Transmission Line
 - Approximate Limit of Project Parcel

Reference:
U.S. Geological Survey, Río Descalabrado and Coamo,
Topographic Quadrangles, 20-Foot Contour Elevations,
7.5-Minute Series, 2018

Source:
USGS TopoView
<https://ngmdb.usgs.gov/topobrowser/pf?id=6563447279705873391638262d>



FIGURE 1: PROJECT SITE TOPOGRAPHIC MAP
Convergent Coamo PV-BESS
Coamo-Santa Isabel, Puerto Rico

Figure 2: Penuelas Project Location Map

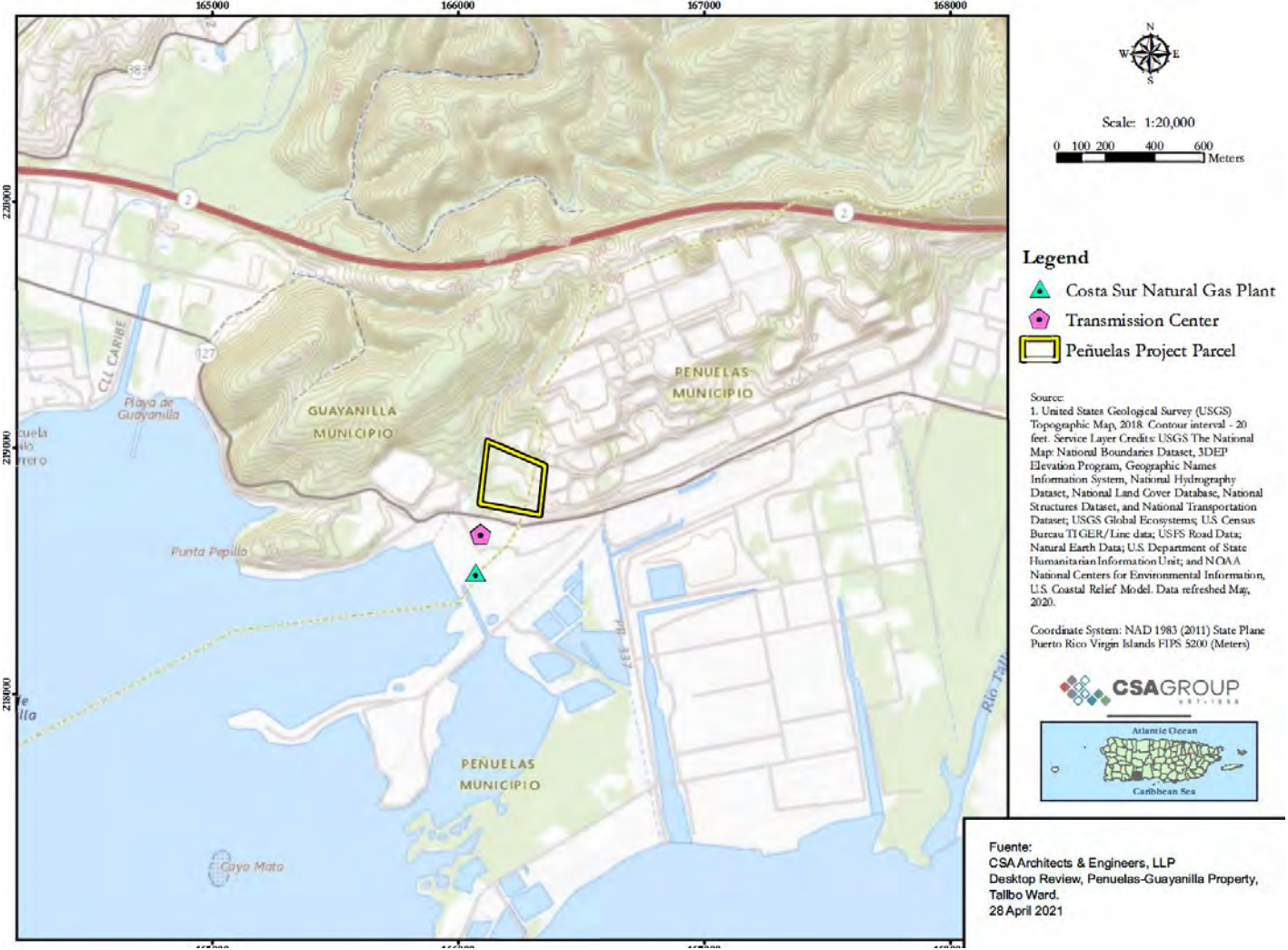


Figure 3: Ponce Project Location Map

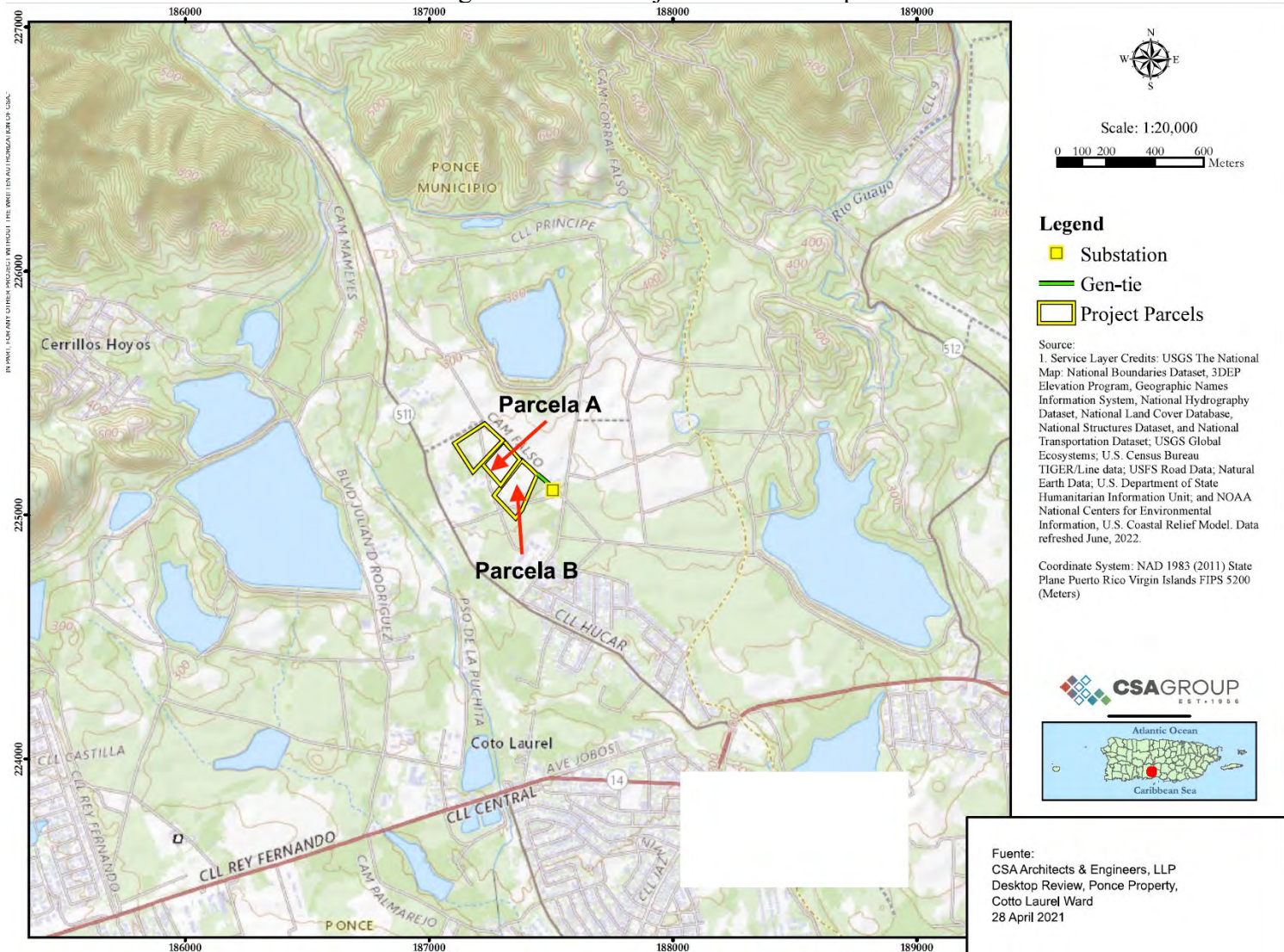
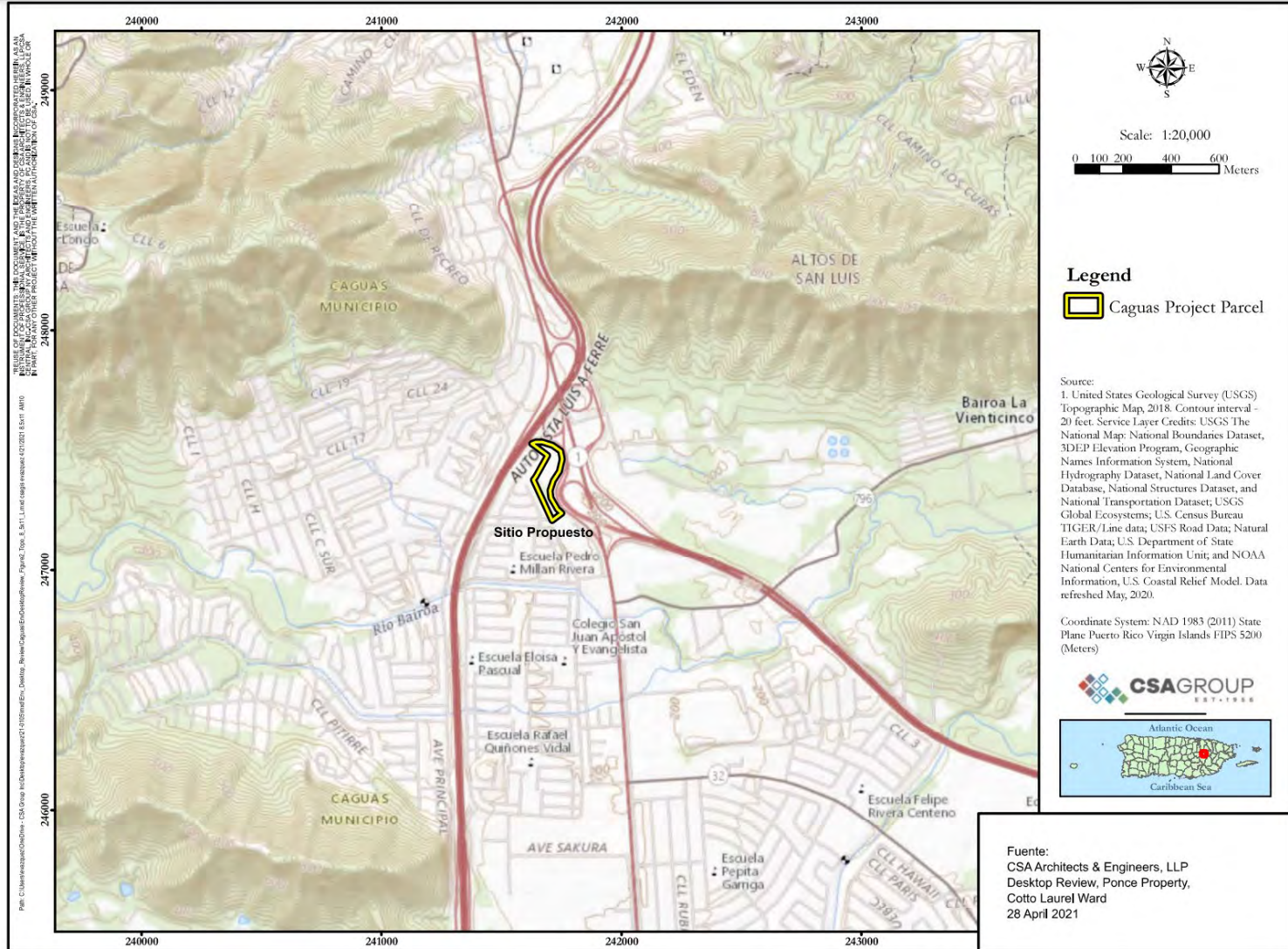


Figure 4: Caguas Project Location Map





Department of Energy

Washington, DC 20585

February 19, 2024

Hon. Rafeal Maldonado
C/O Anaís Rodríguez Vega
Secretary
Departamento de Recursos Naturales y Ambientales
San José Industrial Park
1375 Ave Ponce de León
San Juan, PR 00926

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

Dear Mr. Maldonado,

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Environmental Protection Specialist
Loan Programs Office

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Department of Energy

Washington, DC 20585

February 19, 2024

Milagros M. Navon Rivera
Oficiale de Informacion
Departamento de Recursos Naturales y Ambientales
San José Industrial Park
1375 Ave Ponce de León
San Juan, PR 00926

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

Dear Mr. Milagros M. Navon Rivera,

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Department of Energy

Washington, DC 20585

February 19, 2024

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Oficiale de Informacion
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San José Industrial Park
1375 Ave Ponce de León
San Juan, PR 00926

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Environmental Protection Specialist
Loan Programs Office

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Carlos Rubio-Cancela, State Historic Preservation Office
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Department of Energy

Washington, DC 20585

February 19, 2024

Carlos R. Fajardo Verdejo
Oficiale de Informacion
Departamento de Recursos Naturales y Ambientales
San José Industrial Park
1375 Ave Ponce de León
San Juan, PR 00926

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

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Department of Energy

Washington, DC 20585

February 19, 2024

Dave Kleusner
Acting Director
U.S. Environmental Protection Agency
Region 2 Environmental Review Section
290 Broadway, 25th Floor
New York, NY 10007-1866

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

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Respectfully,

David Oster
Environmental Protection Specialist
Loan Programs Office

Figures and Attachments:

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CC:

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Jorge L. Cotto-Perez, Puerto Rico Electric Power Authority
Lcdo. Samuel Acosta Camacho, Departamento de Recursos Naturales y Ambientales
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Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales



Department of Energy

Washington, DC 20585

February 19, 2024

Jorge L Cotto-Perez
Puerto Rico Electric Power Authority

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

Dear Jorge L Cotto-Perez,

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 (EIR) in the United States and U.S. territories.

DOE is evaluating whether to provide a federal loan guarantee to Convergent Ashford Development LLC (the Applicant), to support one proposed solar PV installation and four BESS in the municipalities of Coamo, Santa Isabel, Peñuelas, Guayanilla, Ponce and Caguas, Puerto Rico (Project). The PV installations will provide electricity to the distribution network of the Puerto Rico Electric Power Authority (PREPA). The decision to prepare an EA for the Project was made in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

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Respectfully,

David Oster
Environmental Protection Specialist
Loan Programs Office

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Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales



Department of Energy

Washington, DC 20585

February 19, 2024

Sheila A. Torres-Sterling
Public-Private Partnerships Authority (P3)

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

Dear Sheila A. Torres-Sterling,

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Respectfully,

David Oster
Environmental Protection Specialist
Loan Programs Office

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Department of Energy

Washington, DC 20585

February 19, 2024

Ernesto Rivera
Public-Private Partnerships Authority (P3)

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

Dear Ernesto Rivera,

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Environmental Protection Specialist
Loan Programs Office

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Carlos Rubio-Cancela, State Historic Preservation Office
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Department of Energy

Washington, DC 20585

February 19, 2024

Carlos Rubio-Cancela
State Historic Preservation Officer
Office of the Governor
State Historic Preservation Office
PO Box 9023935, San Juan, PR 00902-3935

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

Dear Carlos Rubio-Cancela,

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Loan Programs Office

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Lourdes Mena, U.S. Fish and Wildlife Service
Manual Matos, Natural Resource Conservation Service
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales



Department of Energy

Washington, DC 20585

February 19, 2024

Lourdes Mena
Acting Field Supervisor
U.S. Fish and Wildlife Service
Caribbean Ecological Services Field Office
Luchetti Industrial Park 290 Calle B, Bayamon, PR 00961

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

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Department of Energy

Washington, DC 20585

February 19, 2024

Manual Matos-Rodriguez
State Soil Scientist for the Caribbean
Natural Resource Conservation Service
654 Munoz Rivera Ave, Suite 604, San Juan PR 00918

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

Dear Manual Matos-Rodriguez,

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“Peñuelas” is a 100 MW BESS on 5.5 acres located between the municipalities of Peñuelas and Guayanilla, between the wards of Tallaboa Poniente and Cedro (see Figure 2). The Project includes a 30,000 sq. ft. substation and 400 sq. ft. maintenance structure. The Project will interconnect via an approximately 800-foot, 115-kV connection to the Costa Sur SP Transmission Center, which is directly adjacent to the Project across State Road PR-127.

“Ponce” is a 25 MW BESS on one acre located on two adjacent properties in the Ponce municipality (see Figure 3). The Project includes a 10,400 sq. ft. substation and will interconnect through a 925-foot, 38 kV connection with the Juana Diaz Transmission Center running along Camino Falso.

“Caguas” is a 25 MW BESS on two acres in the Caguas municipality (See Figure 4). The Project involves construction of a 400 square foot maintenance structure and 10,400 sq. ft. substation. The Project will interconnect through an approximately 325-foot, 38 kV connection with the Bairoa Transmission Center.

The DOE NEPA regulations provide for the notification of host states and territories of NEPA determinations and for the opportunity for host states and territories to review EAs prior to DOE approval. This process is intended to improve coordination and to facilitate early and open communication.

If you or your staff would like to receive further information concerning this Project or DOE’s NEPA process, please contact me at 240-457-7973 or email at LPO_Environmental@hq.doe.gov.

Respectfully,

David Oster
Environmental Protection Specialist
Loan Programs Office

Figures and Attachments:

Figure 1: Coamo Project Location Map
Figure 2: Penuelas Project Location Map
Figure 3: Ponce Project Location Map
Figure 4: Caguas Project Location Map
Preliminary Site Plans

CC:

Hon. Rafeal Maldonado, Departamento de Recursos Naturales y Ambientales
Omar A. Vega-Albino, Office of the Governor
Dave Kleusner, U.S. Environmental Protection Agency
Lcdo. Samuel Acosta Camacho, Departamento de Recursos Naturales y Ambientales
Carlos R. Fajardo Verdejo, Departamento de Recursos Naturales y Ambientales
Milagros M. Navon Rivera, Departamento de Recursos Naturales y Ambientales
Jorge L. Cotto-Perez, Puerto Rico Electric Power Authority
Ernesto-Rivera, Puerto Rico Public Private Partnerships Authority
Edwin Muniz, U.S. Fish and Wildlife Service
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales
Carlos Rubio-Canela, State Historic Preservation Office



Department of Energy

Washington, DC 20585

February 19, 2024

Ivelisse Espinosa
Secretaría Auxiliar de Permisos
Endosos y Servicios Especializados
Departamento de Recursos Naturales y Ambientales

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Convergent Ashford Development LLC for the Construction of a 100 Megawatt (MW) Solar Photovoltaic (PV) Installation and Multiple Battery Energy Storage Systems (BESS)

Dear Ivelisse Espinosa,

Title XVII of the Energy Policy Act of 2005 (EPAAct) 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 (EIR) in the United States and U.S. territories.

DOE is evaluating whether to provide a federal loan guarantee to Convergent Ashford Development LLC (the Applicant), to support one proposed solar PV installation and four BESS in the municipalities of Coamo, Santa Isabel, Peñuelas, Guayanilla, Ponce and Caguas, Puerto Rico (Project). The PV installations will provide electricity to the distribution network of the Puerto Rico Electric Power Authority (PREPA). The decision to prepare an EA for the Project was made in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

The purpose and need for agency action is to comply with the DOE mandate under Title XVII of the EPAAct to select projects for loan guarantees that are consistent with the goals of the Act. The DOE LPO has determined that the Project as proposed by the Applicant, is eligible pursuant to Section 1706 of EPAAct and is using the NEPA process to assist in determining whether to issue a loan guarantee to Clean Flexible Energy LLC to support the development of the Project. A goal of DOE's financial assistance for EIR projects is to support the construction of and startup of projects and energy technologies that avoid, reduce, or sequester anthropogenic emission of greenhouse gases.

The Applicant proposes to construct the Project at four separate sites, known as Coamo, Peñuelas, Ponce, and Caguas (Figures 1-4). Preliminary site plans are provided as attachments.

At the “Coamo” site, the Applicant will construct and operate a 100 MW solar PV facility and 55 MW BESS on a 630 acre property, 322 acres of which will be developed with PV and BESS. It is located south of Highway PR-14 in the Los Llanos and San Ildefonso wards of the Coamo municipality (see Figure 1). The Project includes a 30,000 square foot (sq. ft.) substation and 400 sq. ft. maintenance structure. In addition, a 115 kV interconnection line will run through the PR-545 highway easement and private easements for 2.2 miles to the switchyard in Jauca 2 ward of the municipality of Santa Isabel.

“Peñuelas” is a 100 MW BESS on 5.5 acres located between the municipalities of Peñuelas and Guayanilla, between the wards of Tallaboa Poniente and Cedro (see Figure 2). The Project includes a 30,000 sq. ft. substation and 400 sq. ft. maintenance structure. The Project will interconnect via an approximately 800-foot, 115-kV connection to the Costa Sur SP Transmission Center, which is directly adjacent to the Project across State Road PR-127.

“Ponce” is a 25 MW BESS on one acre located on two adjacent properties in the Ponce municipality (see Figure 3). The Project includes a 10,400 sq. ft. substation and will interconnect through a 925-foot, 38 kV connection with the Juana Diaz Transmission Center running along Camino Falso.

“Caguas” is a 25 MW BESS on two acres in the Caguas municipality (See Figure 4). The Project involves construction of a 400 square foot maintenance structure and 10,400 sq. ft. substation. The Project will interconnect through an approximately 325-foot, 38 kV connection with the Bairoa Transmission Center.

The DOE NEPA regulations provide for the notification of host states and territories of NEPA determinations and for the opportunity for host states and territories to review EAs prior to DOE approval. This process is intended to improve coordination and to facilitate early and open communication.

If you or your staff would like to receive further information concerning this Project or DOE’s NEPA process, please contact me at 240-457-7973 or email at LPO_Environmental@hq.doe.gov.

Respectfully,

David Oster
Environmental Protection Specialist
Loan Programs Office

Figures and Attachments:

Figure 1: Coamo Project Location Map
Figure 2: Penuelas Project Location Map
Figure 3: Ponce Project Location Map
Figure 4: Caguas Project Location Map
Preliminary Site Plans

CC:

Hon. Rafeal Maldonado, Departamento de Recursos Naturales y Ambientales
Omar A. Vega-Albino, Office of the Governor
Dave Kleusner, U.S. Environmental Protection Agency
Lcdo. Samuel Acosta Camacho, Departamento de Recursos Naturales y Ambientales
Carlos R. Fajardo Verdejo, Departamento de Recursos Naturales y Ambientales
Milagros M. Navon Rivera, Departamento de Recursos Naturales y Ambientales
Jorge L. Cotto-Perez, Puerto Rico Electric Power Authority
Ernesto-Rivera, Puerto Rico Public Private Partnerships Authority
Lourdes Mena, U.S. Fish and Wildlife Service
Manual Matos, Natural Resource Conservation Service
Carlos Rubio-Canela, State Historic Preservation Office



Department of Energy

Washington, DC 20585

August 26, 2024

Omar A. Vega-Albino
Senior Advisor for Energy Affairs
Office of the Governor

SUBJECT: U.S. Department of Energy, Notice of Availability of Draft Environmental Assessment

Dear Mr. Vega-Albino,

The U.S. Department of Energy (DOE), Loan Program Office (LPO) prepared an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to consider the environmental impacts of its decision whether or not to provide a Federal loan guarantee to Convergent Ashford Development LLC (the Applicant), to support one proposed solar PV installation and four BESS in the municipalities of Coamo, Santa Isabel, Peñuelas, Guayanilla, Ponce and Caguas, Puerto Rico (Project). The PV installations will provide electricity to the distribution network of the Puerto Rican Electric Power Authority (PREPA). The decision to prepare an EA was made in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR 1021).

The purpose and need for DOE's proposed action, the issuance of a federal loan guarantee, is to implement DOE's authority under Title XVII of the EAct, which was reauthorized, amended, and revised by the Inflation Reduction Act of 2022 to create the Energy Infrastructure Reinvestment Program (EIR Program) (Section 1706). The purpose of the EIR Program is to finance projects and facilities in the U.S. that retool, repower, repurpose, or replace energy infrastructure that has ceased operations or enable operating energy infrastructure to avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases (GHGs) (42 U.S.C. 16517[a][2]).

The Applicant proposes to construct the Project at four separate sites, known as Coamo, Peñuelas, Ponce, and Caguas.

At the "Coamo" site, the Applicant will construct and operate a 100 MW solar PV facility and 55 MW BESS on a 630 acre property, 322 acres of which will be developed with PV and BESS. It is located south of Highway PR-14 in the Los Llanos and San Ildefonso wards of the Coamo municipality. The Project includes a 30,000 square foot (sq. ft.) substation and 400 sq ft. maintenance structure. In addition, a 115 kV interconnection line will run through the PR-545 highway easement and private easements for 2.2 miles to the switchyard in Jauca 2 ward of the municipality of Santa Isabel.

“Peñuelas” is a 100 MW BESS on 5.5 acres located between the municipalities of Peñuelas and Guayanilla, between the wards of Tallaboa Poniente and Cedro. The Project includes a 30,000 sq. ft. substation and 400 sq. ft. maintenance structure. The Project will interconnect via an approximately 800-foot, 115-kV connection to the Costa Sur SP Transmission Center, which is directly adjacent to the Project across State Road PR-127.

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“Caguas” is a 25 MW BESS on two acres in the Caguas municipality. The Project involves construction of a 400 square foot maintenance structure and 10,400 sq. ft. substation. The Project will interconnect through an approximately 325-foot, 38 kV connection with the Bairoa Transmission Center.

As an interested party and in accordance with DOE NEPA regulations, the EA with the draft Finding of No Significant Impact (FONSI) is included in the following link: <https://www.energy.gov/lpo/ea-2269-draft-environmental-assessment-and-fonsi-photovoltaic-and-battery-energy-storage-system>

If you have trouble accessing the link or need a copy, please contact LPO at LPO_Environmental@hq.doe.gov.

Please review and provide any comments you may have by **September 25, 2024 (comments must be received by this date)**.

Email:

Please include “Convergent EA” in the subject line

LPO_Environmental@hq.doe.gov

If you would like to submit comments by mail, please call 240-457-7973 for more information.

Sincerely,


David Oster
Environmental Protection Specialist
Loan Programs Office



**Formulario para el control de entrega.
Proyectos de sección 106**



(Delivery control form 106 Section)

Sección A. Información a ser llenada por el proponente* (Section A. Information to be filled by proponent)			
Nombre del Proyecto/ Project's name		Número de referencia federal/ Reference federal number	
Convergent Caguas BESS 25 MV Battery Energy System		OMB Control# 1910-5134 UEI #: EHQEQVPR8HQ5	
Municipio/ Municipality	Barrio/ Ward	Nombre del Proponente/ Proponent's name	
Caguas	Bairoa	Convergent Caguas Energy 1 LLC	
Agencia Federal/ Federal Agency		Total de fondos federales solicitados/ Total of federal funds to be requested	Total de acres/ Total amount of acres
Department of Energy Loan Office Program			Total Acres Predio: 4.99 Total Acres Proyecto: 2.43
Nombre de la persona que entrega/ Name of person who delivers		Firma/Signature	
William Sarriera			
Sección B. Información a ser llenada por la OECH al momento de la entrega del proyecto (Section B. Information to be filled by SHPO upon delivery)			
Fecha de entrega en la OECH/ SHPO delivery date		Nombre y firma de la persona que recibe/ Name and signature of person who received	

* Para poder cumplir su labor ministerial la OECH requiere que la Sección A de este formulario sea completada en su totalidad. Por tal razón, no se aceptarán proyectos que incumplan este requerimiento.
(To carry out our duties, the SHPO requires that Section A of this form be totally filled-out. For this reason, we will not accept an incomplete form.)

INFORMACIÓN SUPLETORIA
FORMULARIO PARA EL CONTROL DE ENTREGA PARA PROYECTOS DE SECCIÓN 106,
PUERTO RICO STATE HISTORIC PRESERVATION OFFICE (SHPO)

DESCRIPCIÓN DEL PROYECTO:

Convergent propone desarrollar un predio de terreno ubicado en la intersección de las carreteras estatales PR-1/PR- 52, Barrio Bairoa, Caguas, Puerto Rico. El predio propuesto para el proyecto Caguas Battery Energy Storage System (Caguas BESS) consiste en una (1) parcela identificada con el número de catastro 199-054-725-22-000. Las Figuras 1, 2 y 3 en el Anejo A ilustra el sitio propuesto para el proyecto Ponce BESS. El proyecto según propuesto consiste en la construcción de una estructura para operación y mantenimiento, una subestación, y un sistema de baterías para el almacenamiento de energía eléctrica de 25 MW para proveer al sistema eléctrico de Puerto Rico.

El predio por desarrollarse para el proyecto Caguas Battery Energy Storage System (Caguas BESS) ubica en la intersección de las carreteras estatales PR-1/PR-52, Barrio Bairoa, Caguas, Puerto Rico. El predio propuesto para el proyecto Caguas BESS consiste en una (1) parcela identificada con el número de catastro 199-054-725-22-000. La parcela tiene una cabida aproximada de 5.14 cuerdas ó 20,188.62 m². El proyecto propuesto utilizaría unas 2.5 cuerdas o unos 9,825.99 m² para el desarrollo del Caguas BESS. (Véase Figura 2). El suelo de la parcela está clasificado como Suelo Urbano. El 80% del suelo del predio propuesto para el desarrollo tiene una calificación R-1(Residencial de Baja Densidad) y el restante (20%) del suelo está calificado como C-1 (Comercial Intermedio).

El proyecto consiste en la construcción de una estructura para operación y mantenimiento, una subestación, la instalación, sobre cimientos de hormigón, de contenedores con baterías para el almacenamiento de 25 MW energía eléctrica, inversores y transformadores ocupando un área de unas 2.5 cuerdas o unos 9,825.99 m². También se instalarán postes en acero para las líneas de transmisión y líneas eléctricas. Además, se construirá un acceso y caminos internos y cinco (5) estacionamientos. El proyecto se interconectará a través de una conexión de 38 kV con el Centro de Transmisión Bairoa, en la municipalidad de Caguas vía una línea de sub-transmisión de 38 kV que bordea la parcela. Se estima que el corte y relleno sea balanceado y no se anticipan demoliciones de estructuras.

AGENCIA FEDERAL: Oficina de Programas de Préstamos (LPO por sus siglas en inglés) del Departamento de Energía de EE. UU. (DOE por sus siglas en inglés).

INFORMACIÓN DEL PROYECTO:

1. Localización:

La Figura 1 ilustra la ubicación del Proyecto y sus límites sobre un mapa topográfico del Servicio Geológico de los estados Unidos de América (USGS por sus siglas en inglés)¹.

2. Área del Proyecto:

- a) El predio para el proyecto es de aproximadamente de 5.14 cuerdas ó 20,188.62 m².
- b) El área de ocupación del proyecto dentro del predio sería de unas 2.5 cuerdas o unos 9,825.99 m².

¹ Mapa topográfico del Servicio Geológico de los Estados Unidos, Cuadrángulo de Aguas Buenas, Puerto Rico, 2018.

3. Plano de Situación:

La figura 2 – Diseño Conceptual a una escala 1:2000 muestra la propiedad del proyecto y sus alrededores en tamaño 11"x17". También se incluye como un archivo PDF.

4. Coordenadas y Número de Catastro:

- a) Las coordenadas del predio propuesto para el proyecto, en el Municipio de Caguas, son:
 - i) Coordenadas Decimales: Latitud: 18.26103019°N, Longitud: -66.03904415°O
 - ii) Coordenadas Lambert (NAD83): x: 241694.8556, y: 247382.5294
- b) El Número de Catastro es 199-054-725-22.

5. Fotos de los Predios:

La Figura 3 – Foto Aérea del predio propuesto para el sistema de baterías y la subestación. El Anejo B incluye fotografías a nivel de terreno de los predios propuestos para el proyecto.

El predio propuesto para el proyecto Caguas BESS ubica en la intersección de las carreteras estatales PR-1/PR-52, Barrio Bairoa, Caguas, Puerto Rico. El predio propuesto para el proyecto consiste en una (1) parcela identificada con una cabida aproximada de 5.14 cuerdas ó 20,188.62 m², de las cuales el proyecto propuesto utilizaría unas 2.5 cuerdas o unos 9,825.99 m² para el desarrollo del Caguas BESS. El remanente de las áreas que no serán utilizadas, permanecerán bajo las características naturales existentes. El predio es un área previamente impactada que actualmente está en desuso. La topografía del predio a desarrollarse es llana y tiene una elevación de que fluctúa entre 64 y 65 metros sobre el nivel del mar. Se estima que el corte y relleno sea balanceado y no se anticipan demoliciones de estructuras.

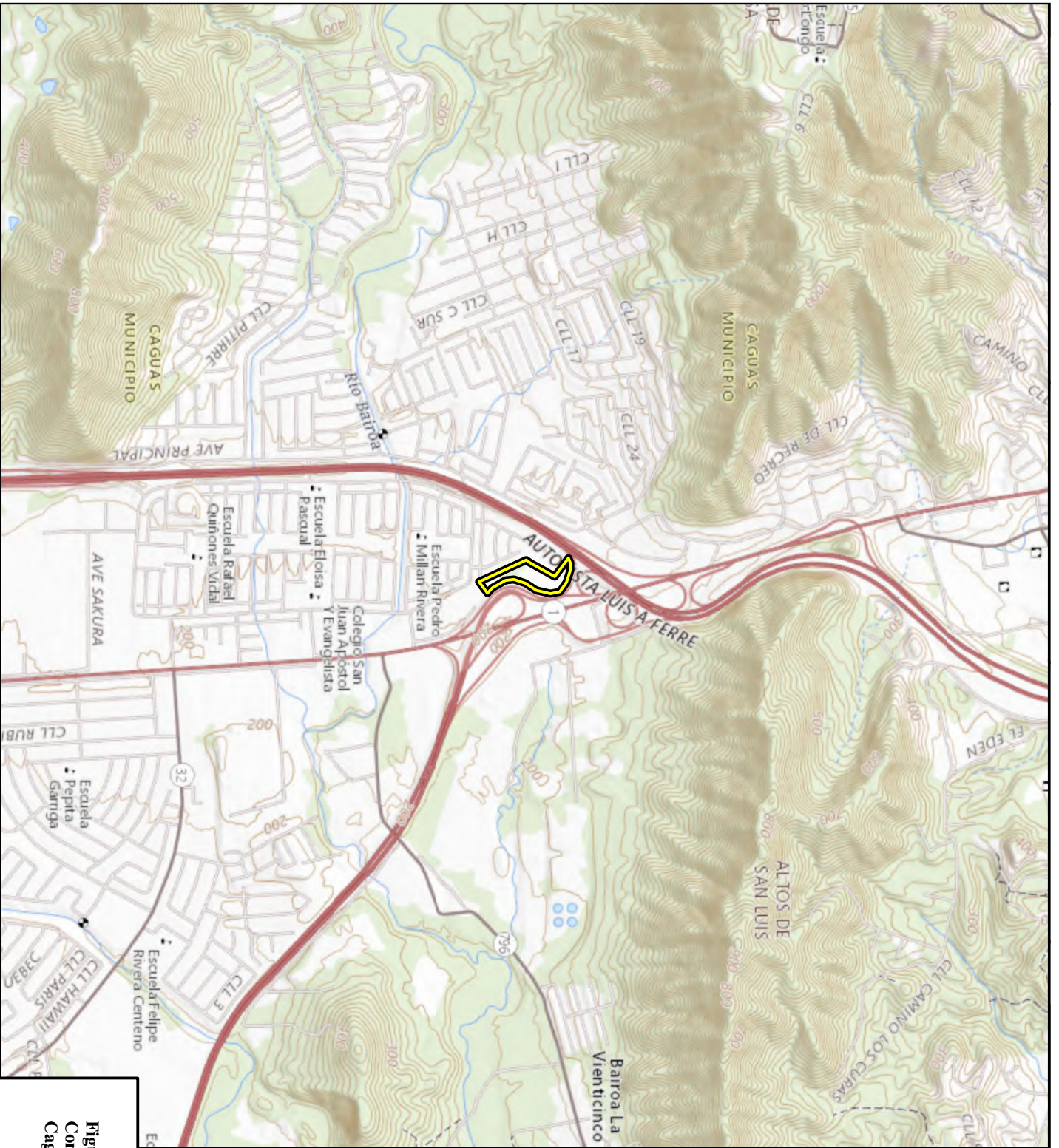
En las bases de datos de la Junta de Planificación² e información publicada por la Oficina Estatal de Preservación Histórica³ no se identificaron yacimientos arqueológicos de importancia o edificaciones históricas registradas o que reúnan los requisitos para el registro en el Registro Nacional de Lugares Históricos en el área del proyecto o en un radio de 400 metros de éste. No existen yacimientos arqueológicos de importancia o edificaciones históricas registradas o elegibles a ser registradas, parques públicos, áreas recreativas o refugios para fauna o aves acuáticas en la parcela o en la periferia de esta. No se anticipan impactos a recursos culturales como consecuencia del proyecto.

La Figura 4 ilustra los recursos culturales en la vecindad del área del Proyecto. No hay propiedades históricas en el área del proyecto o en la vecindad que pudiesen verse afectadas por el proyecto.

² Junta de Planificación de Puerto Rico, Mapa Interactivo de Puerto Rico
<https://gis.jp.pr.gov/mipr/>

³ Oficina Estatal de Conservación Histórica. Prpiedades e Puerto Rico Incluidas en el Registro Nacional de Lugares Históricos. 20 de noviembre de 2020.
<https://www.caappr.org/caappr2021/wp-content/uploads/2021/05/Listado-propiedades-historicas-OECH-RNLH.pdf>

Anejo A
Figuras



Scale: 1:20,000



Legend

 Caguas Project Parcel

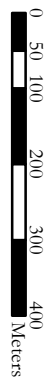
Source:
 1. United States Geological Survey (USGS) Topographic Map, 2018. Contour interval - 20 feet. Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Lane data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed May, 2020.

Coordinate System: NAD 1983 (2011) State Plane Puerto Rico Virgin Islands FIPS 5200 (Meters)

**Figure 1 - Project Site Topographic Map
 Convergent Caguas
 Caguas, Puerto Rico**



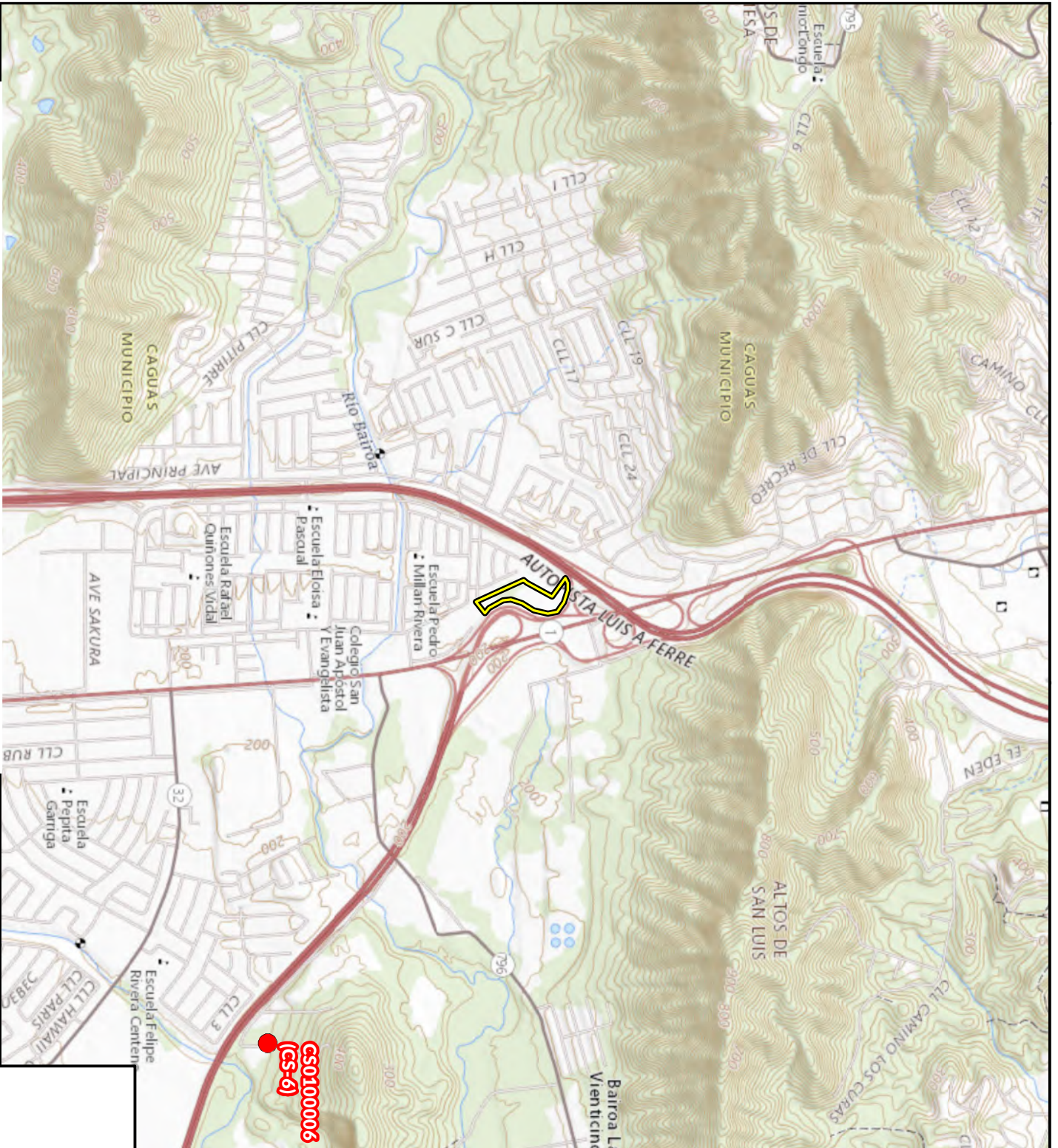
Scale: 1:10,000



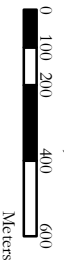
- Legend**
- State Road¹
 - Caguas Project Parcel

Sources:
 1. Puerto Rico Highways and Transportation Authority (ACT) by its acronym in Spanish, 2018.
 2. Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
 Coordinate System: State Plane NAD83 (2011) Puerto Rico and Virgin Islands FIPS 5200 (Meters)

Figure 3- Project Site Aerial Photograph
 Convergent Caguas
 Caguas, Puerto Rico



Scale: 1:20,000



Legend

- Archeological Site¹
- Caguas Project Parcel

Sources: 1. PR State Historic Preservation Office (SHPO), "Sitios Arqueológicos de Caguas", 2014. Archeological sites location is approximate.
 2. Service Layer Credits: USGS The National Map; National Boundaries Dataset; 3DEP Elevation Program; Geographic Names Information System; National Hydrography Dataset; National Land Cover Database; National Structures Dataset; and National Transportation Dataset; USGS Global Ecosystems; US Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; US Department of State/International Information Unit; and NOAA National Centers for Environmental Information; US Coastal Relief Model Data refreshed May, 2020.
 Coordinate System: State Plane NAD83 (2011) Puerto Rico and Virgin Islands FIPS 5200 (Meters)

**Figure 4 - Cultural Resources
 Convergent Caguas
 Caguas, Puerto Rico**

Anejo B
Fotografías del predio



Foto #1 – Vista hacia el noroeste en el predio propuesto para proyecto Caguas BESS.



Foto #2 – Vista hacia el norte en el predio propuesto para proyecto Caguas BESS.



Foto #3 – Vista hacia el noreste en el predio propuesto para proyecto Caguas BESS.



Foto #4 – Vista hacia el este en el predio propuesto para proyecto Caguas BESS.



Foto #5 – Vista en acercamiento de palmas y árboles observados en el predio Caguas BESS.



Foto #6 – Vista en acercamiento de palmas y árboles observados en el predio Caguas BE



GOVERNMENT OF PUERTO RICO
STATE HISTORIC PRESERVATION OFFICE

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

December 5, 2023

William Sarriera

Ace Environmental Consultants
& Trainers
PO Box 1205
Boquerón, PR 00622

SHPO 11-08-23-04 CONVERGENT CAGUAS BESS 25 MV BATTERY
ENERGY SYSTEM, CAGUAS, PUERTO RICO / OMB Control # 1910-5134 /
UEI #: EHQEQVPR8HQ5

Dear Mr. Sarriera,

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

We believe that a finding of **no historic properties affected** would be appropriate for this undertaking.

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

Sincerely,

Carlos A. Rubio-Cancela
State Historic Preservation Officer

CARC/GMO/MB






**Formulario para el control de entrega.
Proyectos de sección 106**

(Delivery control form 106 Section)



Sección A. Información a ser llenada por el proponente* (Section A. Information to be filled by proponent)			
Nombre del Proyecto/ Project's name		Número de referencia federal/ Reference federal number	
Convergent Peñuelas BESS 25 MV Battery Energy System		OMB Control# 1910-5134 UEI #: EHQQVPR8HQ5	
Municipio/ Municipality	Barrio/ Ward	Nombre del Proponente/ Proponent's name	
Peñuelas and Guayanilla	Talaboia	Convergent Peñuelas Energy 1 LLC	
Agencia Federal/ Federal Agency		Total de fondos federales solicitados/ Total of federal funds to be requested	Total de acres/ Total amount of acres
Department of Energy Loan Office Program			Total Acres Predio: 13.90 Total Acres Proyecto: 8.53
Nombre de la persona que entrega/ Name of person who delivers		Firma/Signature	
William Sarriera			
Sección B. Información a ser llenada por la OECH al momento de la entrega del proyecto (Section B. Information to be filled by SHPO upon delivery)			
Fecha de entrega en la OECH/ SHPO delivery date		Nombre y firma de la persona que recibe/ Name and signature of person who received	

* Para poder cumplir su labor ministerial la OECH requiere que la Sección A de este formulario sea completada en su totalidad. Por tal razón, no se aceptarán proyectos que incumplan este requerimiento.
(To carry out our duties, the SHPO requires that Section A of this form be totally filled-out. For this reason, we will not accept an incomplete form.)

INFORMACIÓN SUPLETORIA
FORMULARIO PARA EL CONTROL DE ENTREGA PARA PROYECTOS DE SECCIÓN 106,
PUERTO RICO STATE HISTORIC PRESERVATION OFFICE (SHPO)

DESCRIPCIÓN DEL PROYECTO:

Convergent propone desarrollar un predio de terreno ubicado en los predios de la Commonwealth Oil Refining Company, Inc. (CORCO), en la Carretera PR-385, del barrio Tallaboa entre los municipios de Peñuelas y Guayanilla, Puerto Rico. El proyecto según propuesto consiste en la construcción de una estructura para operación y mantenimiento, una subestación, y un sistema de baterías para el almacenamiento de energía eléctrica de 100 MW.

El área para desarrollar el proyecto consiste en un predio de unos 13.90 acres ó 56,251.3 m² dentro de los predios de la Commonwealth Oil Refining Company, Inc. (CORCO), en la Carretera PR-385, del barrio Tallaboa entre los municipios de Peñuelas y Guayanilla, Puerto Rico. El predio propuesto tiene una zonificación de Industrial Pesado (I-P) y los suelos están clasificados suelo urbano (SU). El proyecto consiste en la construcción de una estructura para operación y mantenimiento, una subestación, la instalación, sobre cimientos de hormigón, de contenedores con baterías para el almacenamiento de 100 MW energía eléctrica, inversores y transformadores ocupando un área de 24,523.95 m² (véase Figura 2). También se instalarán postes en acero para las líneas de transmisión y líneas eléctricas. El proyecto se interconectará a través de una conexión de 115 kV con el Centro de Transmisión Costa Sur SP que se encuentra directamente adyacente al proyecto a través de la PR-127. El proyecto según propuesto proveería unos 100 MW al sistema eléctrico de Puerto Rico.

AGENCIA FEDERAL: Oficina de Programas de Préstamos (LPO por sus siglas en inglés) del Departamento de Energía de EE. UU. (DOE por sus siglas en inglés).

INFORMACIÓN DEL PROYECTO:

1. Localización:
La Figura 1 ilustra la ubicación del Proyecto y sus límites sobre un mapa topográfico del Servicio Geológico de los estados Unidos de América (USGS por sus siglas en inglés)¹.
2. Área del Proyecto:
 - a) El predio para el proyecto es de aproximadamente 13.90 acres o aproximadamente 56,251.3 m².
 - b) El área de ocupación del proyecto dentro del predio sería de 24,523.95 m².
3. Plano de Situación:
La figura 2 – Diseño Conceptual a una escala 1:2000 muestra la propiedad del proyecto y sus alrededores en tamaño 11"x17". También se incluye como un archivo PDF.
4. Coordenadas y Número de Catastro:
 - a) Las coordenadas del predio propuesto para el proyecto, en los municipios de Peñuelas y Guayanilla, son:
 - i) Coordenadas Decimales: Latitud: 18.00349564°N, Longitud: -66.75224134°O
 - ii) Coordenadas Lambert (NAD83): x: 166226.5075, y: 218862.7504
 - b) El Número de Catastro es 386-000-010-02-901

¹ Mapa topográfico del Servicio Geológico de los Estados Unidos, Cuadrángulo de Yauco, Puerto Rico, 2018.

5. Fotos de los Predios:

La Figura 3 – Foto Aérea del predio propuesto para el sistema de baterías y el punto de interconexión con el Centro de Transmisión de Costa Sur. El Anejo B incluye fotografías a nivel de terreno de los predios propuestos para el proyecto.

El predio propuesto para el proyecto incluye 1 parcela, con un área aproximada de 13.90 acres (56,251.3 m²) y están ubicados dentro de los predios de la Commonwealth Oil Refining Company, Inc. (CORCO) al norte de la Carretera PR-127, Barrio Tallaboa en los Municipios de Peñuelas y Guayanilla. Del área total donde ubica el proyecto, sólo se ocuparán aproximadamente 24,523.95m² para el desarrollo del proyecto. El remanente de las áreas que no serán utilizadas, permanecerán bajo las características naturales existentes. El predio del proyecto colinda al norte, este y oeste con terrenos desarrollados industriales; mientras que al sur colinda con la Carretera PR-127. El predio es un área previamente impactada que actualmente está en desuso. La topografía en los terrenos del predio es predominantemente semi llana y tiene una elevación que fluctúa entre 7.01 y 29.26 metros sobre el nivel del mar. Se estima que el corte y relleno sea balanceado y no se anticipan demoliciones de estructuras, no obstante, se demolerá una losa de hormigón existente.

En las bases de datos de la Junta de Planificación² e información publicada por la Oficina Estatal de Preservación Histórica³ no se identificaron yacimientos arqueológicos de importancia o edificaciones históricas registradas o que reúnan los requisitos para el registro en el Registro Nacional de Lugares Históricos en el área del proyecto o en un radio de 400 metros de éste. No existen yacimientos arqueológicos de importancia o edificaciones históricas registradas o elegibles a ser registradas, parques públicos, áreas recreativas o refugios para fauna o aves acuáticas en la parcela o en la periferia de esta. No se anticipan impactos a recursos culturales como consecuencia del proyecto.

La Figura 4 ilustra los recursos culturales en la vecindad del área del Proyecto. No hay propiedades históricas en el área del proyecto o en la vecindad que pudiesen verse afectadas por el proyecto.

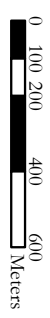
² Junta de Planificación de Puerto Rico, Mapa Interactivo de Puerto Rico
<https://gis.jp.pr.gov/mipr/>

³ Oficina Estatal de Conservación Histórica. Prpiedades e Puerto Rico Incluidas en el Registro Nacional de Lugares Históricos. 20 de noviembre de 2020.
<https://www.caappr.org/caappr2021/wp-content/uploads/2021/05/Listado-propiedades-historicas-OECH-RNLH.pdf>

Anejo A
Figuras



Scale: 1:20,000



Costa Sur Natural Gas Plant

Transmission Center

Peñuelas Project Parcel

Source:
 1. United States Geological Survey (USGS) Topographic Map, 2018, Contour interval - 20 feet, Service Layer Credits: USGS/The National Map; National Boundaries Dataset, 3DIEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/LINE data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed May, 2020.







Coordinate System: NAD 1983 (2011) State Plane Puerto Rico Virgin Islands FIPS 5200 (Meters)

Figure 1 - Project Site Topographic Map
 Convergent Peñuelas
 Peñuelas- Guayanilla, Puerto Rico



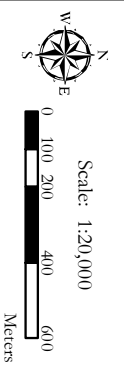
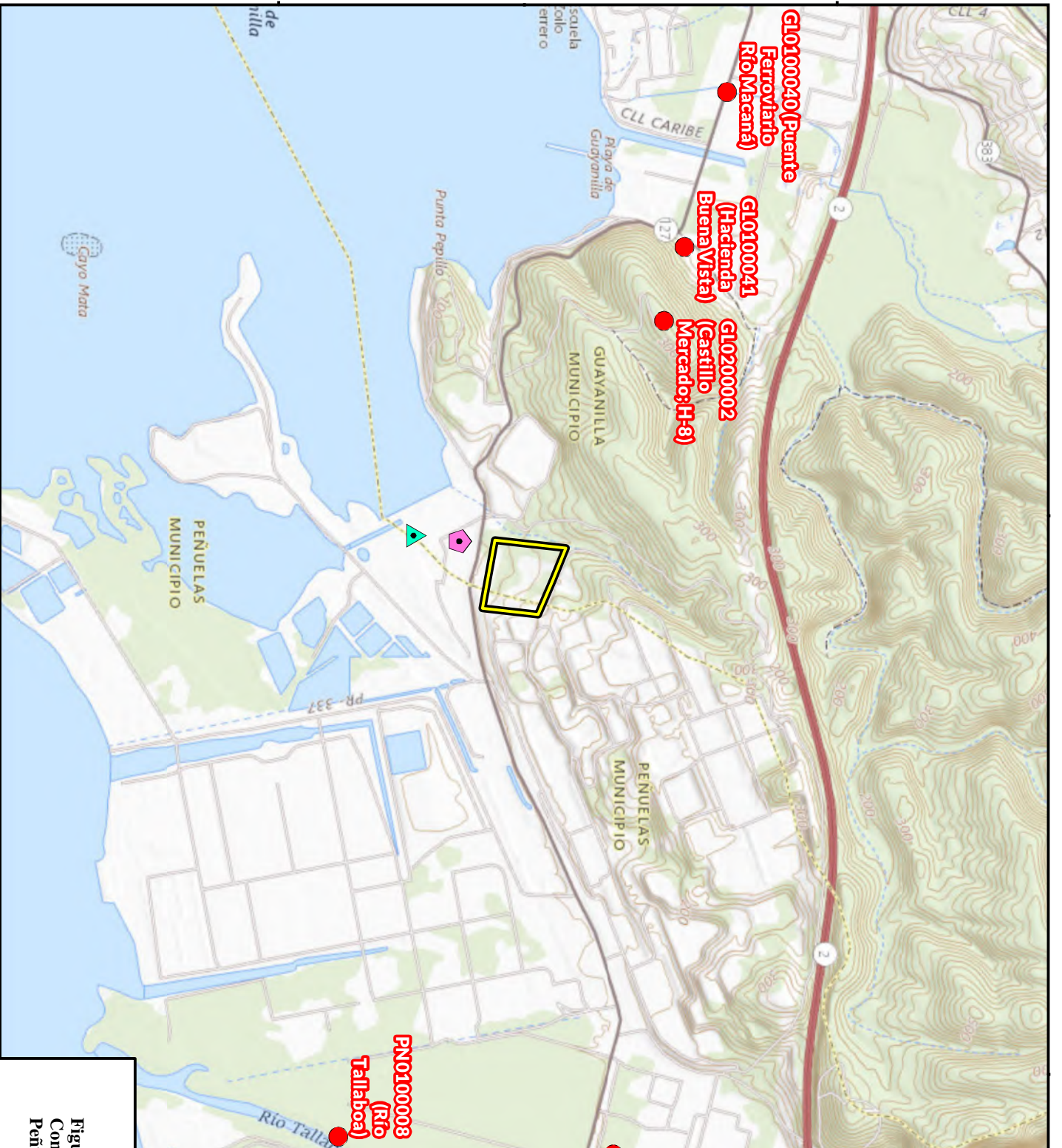
Scale: 1:10,000







-  Costa Sur Natural Gas Plant
-  Transmission Center
-  Peñuelas Project Parcel
-  State Road
-  Municipal Limit
-  Ward Limit

Sources:
 1. Puerto Rico Highways and Transportation Authority (ACT by its acronym in Spanish), 2018.
 2. Puerto Rico Planning Board, 2015.
 3. Service Layer Codes: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
 Coordinate System: State Plane NAD83 (2011) Puerto Rico and Virgin Islands FIPS 5200 (Meters)

**Figure 3 - Project Site Aerial Photograph
 Convergent Peñuelas
 Peñuelas- Guayanilla, Puerto Rico**



-  Costa Sur Natural Gas Plant
-  Transmission Center
-  Peñuelas Project Parcel
-  Archaeological Site¹

Sources:

1. PR State Historic Preservation Office (SHIPRO), "Sitios Arqueológicos de Peñuelas" (2015) and "Sitios Arqueológicos de Guayamilla" (2016). Archeological Sites location is approximate.
 2. Service Layer Credits: USGS The National Map; National Boundaries Dataset; 3DEP Elevation Program; Geographic Names Information System; National Hydrography Dataset; National Land Cover Database; National Structures Dataset; and National Transportation Dataset; USGS Global Ecosystems; US Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; US Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information; US Coastal Keiter Model; Data refreshed May, 2020.
- Coordinate Systems: State Plane NAD83 (2011) Puerto Rico and Virgin Islands FIPS 5200 (Meters)

**Figure 4 - Cultural Resources
Convergent Peñuelas
Peñuelas- Guayamilla, Puerto Rico**

Anejo B
Fotografías del predio



Foto #1 – Vista hacia el sur del predio propuesto para proyecto Peñuelas BESS.



Foto #2 – Vista hacia el oeste del predio propuesto para proyecto Peñuelas BESS.



Foto #3 – Zarcilla (*Leucaena leucocephala*) especie invasiva dominante en el predio



Foto #4 – Uña de gato (*Pithecellobium unguis-cati*) especie observada en el predio.



GOVERNMENT OF PUERTO RICO
STATE HISTORIC PRESERVATION OFFICE

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

December 4, 2023

William Sarriera

Ace Environmental Consultants
& Trainers
PO Box 1205
Boquerón, PR 00622

SHPO 11-08-23-02 CONVERGENT PEÑUELAS BESS 25 MV BATTERY ENERGY SYSTEM, PEÑUELAS-GUAYANILLA, ISLANDWIDE, PUERTO RICO / OMB Control # 1910-5134 / UEI #: EHQEQVPR8HQ5

Dear Mr. Sarriera,

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

We believe that a finding of **no historic properties affected** would be appropriate for this undertaking.

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

Sincerely,

Carlos A. Rubio-Cancela
State Historic Preservation Officer

CARC/GMO/MB





Vista de Parcela A en dirección sureste.



Vista de Parcela A en dirección sur.



Vista de Parcela A en dirección suroeste



Vista de Parcela A en dirección oeste.



Vista de Parcela B en dirección sureste.



Vista de Parcela B en dirección sur.



Vista de Parcela B en dirección suroeste.



Vista de Parcela B en dirección oeste.



CSAGROUP
EST • 1956

March 1, 2024

Carlos A. Rubio Cancela
State Historic Preservation Officer
Cuartel de Ballajá, 3rd Floor
Calle Norzagaray, Esq. Beneficiencia
Viejo San Juan, PR 00901

SHPO 11-08-23-03 CONVERGENT COAMO PV-BESS 100 MW PHOTOVOLTAIC
SYSTEM COAMO/SANTA ISABEL, ISLANDWIDE, PUERTO RICO / OMB CONTROL
#1910-5134 / UEI #: EHQEQVPR8HQ5

Dear architect Rubio-Cancela:

On its letter dated December 4, 2023, the State Historic Preservation Office (SHPO) acknowledged receipt of the May 2023 version of the archaeological reconnaissance survey report (Phase I) prepared for the project in reference. In that communication, the OECH indicated that after reviewing the document, it recommends that an intensive archaeological survey (Phase II) be conducted to evaluate the eligibility for inclusion into the National Register of Historic Places of the cultural resources identified within the project's area of potential effects (APE).

On January 3, 2024, Carlos Lopez Freytes and Raquel Camacho met with SHPO's archaeologist Miguel Bonini to present and discuss alternatives to having to perform a Phase II study. Mr. Lopez and Mrs. Camacho provided information to Mr. Bonini about the project owner's (Convergent) willingness to protect (by avoidance) the areas of archaeological interest within the proposed project's APE. Mrs. Camacho informed Mr. Bonini that the Phase I archaeological reconnaissance survey report had been updated to incorporate comments provided by the *Instituto de Cultura Puertorriquena* (ICP). The meeting participants agreed that the most recent version of the Phase I study would be modified to include the required Section 106 discussion (i.e. area of potential effects and recommendation of determination), regarding the effects of the project on cultural resources, and submitted to the SHPO.

The updated version of the archaeological reconnaissance survey report (Phase I) is hereby submitted for your review (**Enclosure 1**). This version details the avoidance measures proposed to protect (by avoidance) the cultural resources identified within the project limits: the ruins of Hacienda Carmen (Lat.: 18.057700 Long.: -66.374827) and a small midden adjacent (Lat.: 18.057700 Long.: -66.383461) to the overhead electric line proposed within the interconnection parcel.



CSAGROUP
EST • 1956

Please consider that the recommended protective measures included in the updated Phase I study are already part of the conditions imposed by the ICP for their project authorization. Hence, it is our request with this submittal that SHPO reconsider the Phase II request and accept the proposed mitigation measures within the Phase I study included with this letter.

We submit the above-mentioned document for your review.

Regards,

Raquel del C. Camacho-Hernández
Archaeologist
CSA Architects & Engineers

Enclosure



GOVERNMENT OF PUERTO RICO

STATE HISTORIC PRESERVATION OFFICE

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

Wednesday, March 20, 2024

Raquel D Camacho Hernandez

SHPO-CF-03-19-24-04 CONVERGNT COAMO PV-BESS 100 MW
PHOTOVOLTAIC SYSTEM COAMO / SANTA ISABEL PR

Dear Ms. Camacho,

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

We have examined the revised archaeological survey report prepared for the project site and concur that, although potentially historically significant properties are present (Hacienda Carmen and a shell midden), the revised report includes measures to avoid them. Therefore, with the implementation of these avoidance measures, we believe that a finding of no historic properties affected would be appropriate for this undertaking.

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

Sincerely,

Carlos A. Rubio Cancela

State Historic Preservation Officer
CARC/GMO/MB



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



Department of Energy

Washington, DC 20585

March 27, 2024

Robert Tawes
Acting Field Supervisor
Caribbean Ecological Services Field Office
U.S. Fish and Wildlife Service
P.O. Box 491 Boqueron, P.R. 00622

SUBJECT: Formal Consultation Under Section 7 of the Endangered Species Act for the Convergent Coamo Energy Storage, LLC Photovoltaic Solar and Battery Energy Storage Project in Coamo Municipality

Dear Mr. Tawes,

Title XVII of the Energy Policy Act of 2005 (EPAAct) established a federal loan guarantee program for certain projects that support energy infrastructure reinvestment and authorizes the Secretary of Energy to make loan guarantees available for those projects. Convergent Ashford Development LLC (Convergent or Applicant), a subsidiary of Convergent Energy Solutions New York LLC, has applied for a loan guarantee pursuant to the U.S. Department of Energy's (DOE) Title XVII Energy Infrastructure Reinvestment Program. DOE is evaluating whether to provide a federal loan guarantee to the Applicant to support a 100-megawatt (MW) solar photovoltaic facility and a 55 MW battery energy storage system (BESS) facility (Project) in the Coamo Municipality (see Figure 1 in the attached flora and fauna study).

The proposed Project will be constructed on approximately 375 acres within the 630-acre property. A 1.7-mile overhead transmission line will connect the Project to the Puerto Rico Electric Power Authority (PREPA) network in the nearby Municipality of Santa Isabel. As documented in the attached Flora and Fauna Survey, the Project site consists primarily of former agricultural lands cleared over 30 years ago, currently with a land cover of ruderal grasses and shrubs. Strips and patches of riparian forest occur within the property, but those areas were avoided through project design.

The Information for Planning and Consultation (IPaC) screening flagged the federally endangered Puerto Rican Boa (*Chilabothrus inornatus*), Puerto Rican Nightjar (*Antrostomus noctitherus*), Beautiful Goetzea (*Goetzea elegans*), and the threatened Puerto Rican Crested Toad (*Peltophryne lemur*) and Eugenia woodburyana (*Eugenia woodburyana*) as potential listed species occurrences in the general area (see IPaC report attached). The project site is not located within the species range for the two plant species (Beautiful Goetzea and Eugenia woodburyana), and therefore the DOE makes a *No Effect* determination for those species. The Service's July 2022 5-year review for the Puerto Rican Crested Toad noted that a 2021 study installed sound recorders at the Gabia Farm reintroduction site but failed to detect any toad vocalizations. The project site is outside the known range of the Puerto Rican Crested Toad and DOE therefore makes a *No Effect* determination for that species.



Department of Energy

Washington, DC 20585

In accordance with the Endangered Species Act of 1973, DOE is requesting formal consultation with your office regarding potential effects on the federally endangered Puerto Rican Boa (*Chilabothrus inornatus*) for the Coamo project. Although the probability of Puerto Rican Boa occurrence within the 322-acre construction footprint for the project is minimal due to the site history, current land use (cleared agricultural lands) and the project design, we have determined that adhering to the terms and conditions of the Programmatic Biological Assessment (PBO) for the Puerto Rican Boa is in the best interest of species conservation. Consultation under the PBO requires DOE to make a determination that the proposed action *may affect, likely to adversely affect* (MLAA) the Puerto Rican Boa. Adherence to the terms and conditions of the PBO provides for a take exemption related to this action.

The most recent USFWS 5-Year Status Review for the Puerto Rican nightjar (USFWS 2023) reiterated the 2012 and 2017 5-year reviews that the sedentary nightjar is linked to mature, closed canopy forests (citing Gonzales 2010). The project location, open agricultural land cover, and project design avoided and minimized habitat impacts to the riparian forest at the margins of the project footprint, even though Gonzales (2010) noted that nightjars are not known to occur in riparian forests. Therefore, based on occurrence data, lack of suitable habitat, and project design, DOE proposes a *Not Likely To Adversely Affect* (NLAA) determination for the nightjar.

DOE requests your concurrence with our MLAA determination and commitment to compliance with the terms and conditions of the PBO to support the conservation of the Puerto Rican Boa, and DOE requests your concurrence with our NLAA determination for the Puerto Rican Nightjar.

If you or your staff have additional questions or comments, please contact me in the DOE Loan Programs Office at 240-457-7973, or email at LPO_Environmental@hq.doe.gov.

Respectfully,

David Oster
Environmental Protection Specialist
Loan Programs Office

Attachments:

IPaC Resource List

Terrestrial Flora and Fauna Study, 100 MW Photovoltaic Solar Project, Coamo, Puerto Rico

References:

González, R.G., 2010. Population estimation and landscape ecology of the Puerto Rican Nightjar. Mississippi State University.

U.S. Fish and Wildlife Service (USFWS). 2023. Puerto Rican nightjar or guabairo (*Caprimulgus noctitherus*) 5-year status review summary and evaluation. 12 pp.



Department of Energy

Washington, DC 20585

March 27, 2024

Robert Tawes
Acting Field Supervisor
Caribbean Ecological Services Field Office
U.S. Fish and Wildlife Service
P.O. Box 491 Boqueron, P.R. 00622

SUBJECT: Informal Consultation Under Section 7 of the Endangered Species Act for the Convergent Peñuelas Battery Energy Storage System Project in Peñuelas and Guayanilla Municipalities

Dear Mr. Tawes,

Title XVII of the Energy Policy Act of 2005 (EPAAct) established a federal loan guarantee program for certain projects that support energy infrastructure reinvestment and authorizes the Secretary of Energy to make loan guarantees available for those projects. Convergent Ashford Development LLC (Convergent or Applicant), a subsidiary of Convergent Energy Solutions New York LLC, has applied for a loan guarantee pursuant to the U.S. Department of Energy's (DOE) Title XVII Energy Infrastructure Reinvestment Program. DOE is evaluating whether to provide a federal loan guarantee to the Applicant to support a 100-megawatt (MW) battery energy storage system (BESS) (Project) facility on a 6.1-acre parcel within a 13.9-acre property zoned as Heavy Industrial that straddles boundary between the Peñuelas and Guayanilla Municipalities (see Figure 1 in attached flora and fauna report).

The BESS Project will be interconnected to the power grid via a 115 kV connection to the Costa Sur SP Transmission Center, which is directly adjacent to the project across State Road PR-127. A Phase I Environmental Site Assessment for the Project documented that the US Army Air Corps used the site for oil and gasoline storage in the early 1940s, and later operated by Shell Oil from the 1950s to 2012. The site is now vacant, with the ground surface consisting of an asphalt cap and a concrete foundation from a former building. The site is adjacent to an operating coal-fired power plant and an oil terminal facility. As documented in the attached Flora and Fauna Survey, the vegetation overgrowing the asphalt cap and disturbed industrial ground consists of grasses, the invasive white lead-tree (*Leucena leucocephala*), and other ruderal species.

The Information for Planning and Consultation (IPaC) screening flagged the federally endangered Puerto Rican Boa (*Chilabothrus inornatus*), Puerto Rican nightjar (*Antrostomus noctitherus*), and the Bariaco plant (*Trichilia triacantha*), along with the threatened West Indian manatee (*Trichechus manatus*) and Palo De Rosa plant (*Ottoschulzia rhodoxylon*) as potential listed species occurrences in the general area (see IPaC report attached). The Flora and Fauna survey did not record any listed species occurrences onsite.

The conversion of the site to heavy industrial uses over 80 years ago, the continued heavy industrial uses and disturbance of the lands surrounding the site, and the lack of any onsite



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Washington, DC 20585

suitable habitat for any of the listed species flagged in the IPaC report renders the site as highly improbable for the presence of any of the species flagged by IPaC for the general area. Therefore, DOE proposes a No Effect determination for the Puerto Rican boa, Puerto Rican nightjar, Bariaco plant, Palo De Rosa plant, or the West Indian manatee.

DOE requests your concurrence with our No Effect determination for these species. If you or your staff have additional questions or comments, please contact me in the DOE Loan Programs Office at 240-457-7973, or email at LPO_Environmental@hq.doe.gov.

Respectfully,

David Oster
Environmental Protection Specialist
Loan Programs Office

Attachments:

IPaC Resource List

Peñuelas Battery Energy Storage System (BESS) Flora and Fauna Description



Department of Energy

Washington, DC 20585

March 27, 2024

Robert Tawes
Acting Field Supervisor
Caribbean Ecological Services Field Office
U.S. Fish and Wildlife Service
P.O. Box 491 Boqueron, P.R. 00622

SUBJECT: Informal Consultation Under Section 7 of the Endangered Species Act for the Convergent Ponce Battery Energy Storage System Project in Ponce Municipality

Dear Mr. Tawes,

Title XVII of the Energy Policy Act of 2005 (EPAAct) established a federal loan guarantee program for certain projects that support energy infrastructure reinvestment and authorizes the Secretary of Energy to make loan guarantees available for those projects. Convergent Ponce Energy 1 LLC (Convergent; The Applicant), a subsidiary of Convergent Energy Solutions New York, has applied for a loan guarantee pursuant to the U.S. Department of Energy's (DOE) Title XVII Energy Infrastructure Reinvestment Program. DOE is evaluating whether to provide a federal loan guarantee to the Applicant to support a 25-megawatt (MW) battery energy storage system (BESS) (Project) facility on a 10.7-acre parcel (identified as Parcel A, the northernmost parcel shown on Figure 1 of the enclosed flora and fauna study).

The proposed Project will be constructed on approximately 3.9 acres within the 10.7-acre property (Figure 2). The Project will be interconnected to the power grid via a 38 kV sub-transmission line that will run along Camino Falso for approximately 900 feet to the Juana Diaz Transmission Center in the municipality of Ponce. As documented in the attached Flora and Fauna Survey and the report photographs, the land cover within the Project site consists primarily of grasses with scattered shrubs and occasional low-stature trees. A review of historical aerial imagery indicates that the property was cleared prior to 1993 and that the property has been surrounded by cleared agricultural lands and rural commercial and residential uses since that time.

The Information for Planning and Consultation (IPaC) screening flagged the federally endangered Puerto Rican Boa (*Chilabothrus inornatus*) as a potential listed species occurrence in the general area (see IPaC report attached). The Flora and Fauna survey did not record any listed species occurrences onsite. The lack of suitable habitat for the Puerto Rican boa on the Project site, and the historically severed connectivity to distant offsite boa habitat for over 30 years limit the potential for boa occurrence at the 3.9-acre construction site. Therefore, DOE proposes a No Effect determination for the Puerto Rican boa.



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Washington, DC 20585

DOE requests your concurrence with our No Effect determination for the Puerto Rican Boa. If you or your staff have additional questions or comments, please contact me in the DOE Loan Programs Office at 240-457-7973, or email at LPO_Environmental@hq.doe.gov.

Respectfully,

David Oster
Environmental Protection Specialist
Loan Programs Office

Attachments:

IPaC Resource List

Ponce Battery Energy Storage System (BESS) Flora and Fauna Survey



United States Department of the Interior

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



In Reply Refer To:
FWS/R4/CESFO/72043-022

Submitted Via Electronic Mail: LPO_Environmental@hq.doe.gov

Mr. David Oster
Department of Energy
Environmental Protection Specialist
Loan Programs Office
Washington DC 20585

Re: Convergent Coamo Energy Storage, LLC
Photovoltaic Solar and Battery Energy Storage Project,
Coamo, Puerto Rico

Dear Mr. Oster:

Thank you for your letter of March 27, 2024, requesting initiation of formal consultation under section 7 of the Endangered Species Act (ESA) for the above referenced project. Our comments are provided under the ESA (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The U.S. Department of Energy-Loan Programs Office (DOE-LPO) is evaluating whether to provide a federal loan guarantee to Convergent Ashford Development LLC, a subsidiary of Convergent Energy Solutions New York, LLC (Applicant) to support the development of a 100 megawatt (MW) solar photovoltaic facility and a 55 MW battery energy storage system. The project will be established on approximately 375 acres of a 630-acre parcel in the municipality of Coamo. A 1.7-mile overhead transmission line will connect the Project to the Puerto Rico Electric Power Authority (PREPA) network in the nearby municipality of Santa Isabel.

According to the information provided, based on the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system, the proposed project lies within the range of the endangered Puerto Rican boa (*Epicrates inornatus*, now known as *Chilabothrus inornatus*) Puerto Rican nightjar (*Antrostomus noctitherus*), Beautiful Goetzia (*Goetzia elegans*), and the threatened Puerto Rican Crested Toad (*Peltophryne lemur*) and *Eugenia woodburyana* (no common name).

Based on the project description and the Flora and Fauna Surveys and habitat in the project site, DOE-LPO made a no effect (NE) determination for the Beautiful Goetzia, *Eugenia woodburyana*, and the Puerto Rican crested toad. Furthermore, DOE-LPO determined that the proposed project

may affect but is not likely to adversely affect (NLAA) the Puerto Rican nightjar, based on lack of suitable habitat and project design and also determined that the proposed project may affect and is likely to adversely affect (MLAA) the Puerto Rican boa. Therefore, DOE-LPO will request the implementation of the terms and conditions included in amended Programmatic Biological Opinion (PBO) developed for the PR boa.

We acknowledge receipt of DOE-LPO NE determination for the Beautiful Goetzea, *Eugenia woodburyana* and the Puerto Rican crested toad. Currently, we do not have information to refute that determination. Because DOE-LPO made a NE determination, DOE-LPO is not required to conduct formal or informal section 7 consultation with the Service for these species, and the Service is not required to concur with DOE-LPONE determination.

We have reviewed the information provided by DOE-LPO and concur with their NLAA determination for the Puerto Rican nightjar and concur with their MLAA determination for the Puerto Rican boa with the implementation of the terms and conditions included in Sections 6.4 and 6.5 of the amended PBO.

In view of this, we believe that requirements of section 7 of the Endangered Species Act (Act) have been satisfied. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner that was not previously considered; (2) this action is subsequently modified in a manner not previously considered in this assessment; or, (3) a new species is listed, or critical habitat determined that may be affected by the identified action.

Thank you for the opportunity to comment on this project. If you have any questions or require additional information, please contact José Cruz Burgos, Threatened and Endangered Species Program Coordinator, via email at jose_cruz-burgos@fws.gov or caribbean_es@fws.gov, or by phone at (786) 244-0081.

Sincerely yours,

Robert Tawes
Acting Field Supervisor

mgv

Enclosure: Programmatic Biological Opinion for the Puerto Rican boa and the Virgin Islands tree boa



United States Department of the Interior

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



In Reply Refer To:
FWS/R4/CESFO/72113-105

Submitted via electronic mail: LPO_Environmental@hq.doe.gov

Mr. David Oster
Environmental Protection Specialist
Department of Energy
Washington, DC 20585

Re: Informal Consultation for the Convergent Ponce
Battery Energy Storage System Project in Ponce
Municipality, Puerto Rico

Dear Mr. Oster:

This is in reply to your March 27, 2024, letter requesting consultation for the proposed 25-megawatt (MW) battery energy storage system (BESS) (Project) facility on a 10.7-acre parcel. Our comments are issued in accordance with the Endangered Species Act (16 U.S.C. 1531 et seq. as amended).

U.S. Department of Energy's (DOE) is evaluating whether to provide a federal loan guarantee for the proposed project. The BESS Project will be constructed on approximately 3.9 acres within the 10.7-acre property. The Project will be interconnected to the power grid via a 38 kV sub transmission line that will run along Camino Falso for approximately 900 feet to the Juana Diaz Transmission Center in the municipality of Ponce. The land cover within the Project site consists primarily of grasses with scattered shrubs and occasional low-stature trees. A review of historical aerial imagery indicates that the property was cleared prior to 1993 and that the property has been surrounded by cleared agricultural lands and rural commercial and residential uses since that time.

DOE has identified that the proposed project falls within the range of the Puerto Rican boa (*Chilabothrus inornatus*). The lack of suitable habitat for the Puerto Rican boa on the Project site, and the historically severed connectivity to offsite boa habitat for over 30 years limit the potential for boa occurrence at the 3.9-acre construction site. Therefore, DOE has determined the proposed action would have no effect on the Puerto Rican boa.

We acknowledge receipt of your NE determination for the Puerto Rican boa. Currently we do not have any information to refute your determination. Because you made a NE determination, you are not required to conduct formal or informal section 7 consultation with the U.S. Fish and Wildlife Service (Service), and the Service is not required to concur with your NE determination.

Mr. Oster

2

Thank you for the opportunity to comment on this action, if you have any questions, please contact Felix Lopez of my staff at (305) 304-1128.

Sincerely,

Silmarie Padron
Acting Field Supervisor

fhl

cc:

DNER, San Juan

PRPB, San Juan

NMFS, San Juan



United States Department of the Interior

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



In Reply Refer To:
FWS/R4/CESFO/72111-028

Submitted via electronic mail: LPO_Environmental@hq.doe.gov

Mr. David Oster
Environmental Protection Specialist
Department of Energy
Washington, DC 20585

Re: Informal Consultation for the Convergent Peñuelas
Battery Energy Storage System Project in Peñuelas and
Guayanilla Municipalities, Puerto Rico

Dear Mr. Oster:

This is in reply to your March 27, 2024, letter requesting consultation for the proposed a 100-megawatt (MW) battery energy storage system (BESS) facility on a 6.1-acre parcel in the Peñuelas and Guayanilla Municipalities. Our comments are issued in accordance with the Endangered Species Act (16 U.S.C. 1531 et seq. as amended).

U.S. Department of Energy's (DOE) is evaluating whether to provide a federal loan guarantee for the proposed project. The BESS Project will be interconnected to the power grid via a 115 kV connection to the Costa Sur SP Transmission Center, which is directly adjacent to the project across State Road PR-127. The site has been used for industrial purposes since the 1940's, vegetation overgrowing asphalt, concrete slabs and previously disturbed areas consists of grasses, the invasive white lead-tree (*Leucaena leucocephala*), and other invasive plants.

DOE has identified that the proposed project falls within the range of the following listed species: Puerto Rican boa (*Chilabothrus inornatus*), Puerto Rican nightjar (*Antrostomus noctitherus*), the Bariaco plant (*Trichilia triacantha*), West Indian manatee (*Trichechus manatus*) and Palo De Rosa plant (*Ottoschulzia rhodoxylon*).

Based on the historical use of the area, DOE has determined that there is no suitable habitat for these species and the proposed action will have no effect on these.

We acknowledge receipt of your NE determination for the Puerto Rican boa, Puerto Rican nightjar, the Bariaco plant, West Indian manatee, and Palo de rosa plant. Currently we do not have any information to refute your determination. Because you made a NE determination, you are not

required to conduct formal or informal section 7 consultation with the U.S. Fish and Wildlife Service (Service), and the Service is not required to concur with your NE determination.

Thank you for the opportunity to comment on this action, if you have any questions, please contact Felix Lopez of my staff at (305) 304-1128.

Sincerely,

Silmarie Padron
Acting Field Supervisor

fhl

cc:

DNER, San Juan

PRPB, San Juan

NMFS, San Juan

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request March 13, 2024			
Name of Project Convergent - Caguas		Federal Agency Involved U.S. Department of Energy			
Proposed Land Use Battery Energy Storage		County and State Caguas, Puerto Rico			
PART II (To be completed by NRCS)		Date Request Received By NRCS 3/15/2024		Person Completing Form: Jacqueline Vega-NRCS	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated 1,6668	Average Farm Size 88
Major Crop(s) Plantains, Coffee, Vegetables	Farmable Land In Govt. Jurisdiction Acres: 229,771% 50	Amount of Farmland As Defined in FPPA Acres: 81,728% 18			
Name of Land Evaluation System Used LESA -San Juan (SSA-PR686)	Name of State or Local Site Assessment System N/A	Date Land Evaluation Returned by NRCS 3/18/2024			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		6			
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site		6			
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		5.60			
B. Total Acres Statewide Important or Local Important Farmland		0			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		0.0069			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		86.3			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		78			
PART VI (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use		(15)	11		
2. Perimeter In Non-urban Use		(10)	0		
3. Percent Of Site Being Farmed		(20)	0		
4. Protection Provided By State and Local Government		(20)	0		
5. Distance From Urban Built-up Area		(15)	0		
6. Distance To Urban Support Services		(15)	0		
7. Size Of Present Farm Unit Compared To Average		(10)	0		
8. Creation Of Non-farmable Farmland		(10)	0		
9. Availability Of Farm Support Services		(5)	5		
10. On-Farm Investments		(20)	0		
11. Effects Of Conversion On Farm Support Services		(10)	0		
12. Compatibility With Existing Agricultural Use		(10)	0		
TOTAL SITE ASSESSMENT POINTS		160	16	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	78	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	16	0	0
TOTAL POINTS (Total of above 2 lines)		260	94	0	0
Site Selected: Caguas		Date Of Selection 7/23/2024		Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>	
Reason For Selection: The Caguas site is being evaluated as the preferred alternative location for the 25MW BESS facility in DOE's National Environmental Policy Act review of the project's loan guarantee application. The site is an urban lot bordered by an existing substation, highway, and commercial vehicle parking area.					
Name of Federal agency representative completing this form: David A. Oster					Date: 7/23/2024

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request March 13, 2024			
Name of Project Convergent - Coamo		Federal Agency Involved U.S. Department of Energy			
Proposed Land Use Solar Photovoltaic Power Generation		County and State Coamo, Puerto Rico			
PART II (To be completed by NRCS)		Date Request Received By NRCS 3/15/2024		Person Completing Form: Jacqueline Vega- NRCS	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated 6,892	Average Farm Size 88
Major Crop(s) Plantains, Coffee, Vegetables	Farmable Land In Govt. Jurisdiction Acres: 73,472 % 25	Amount of Farmland As Defined in FPPA Acres: 73,472 % 25			
Name of Land Evaluation System Used LESA - Ponce (SSA -PR688)	Name of State or Local Site Assessment System N/A	Date Land Evaluation Returned by NRCS 3/18/2024			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		350			
B. Total Acres To Be Converted Indirectly		9			
C. Total Acres In Site		359			
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		433.50			
B. Total Acres Statewide Important or Local Important Farmland		119.10			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		0.7521			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		89			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		74			
PART VI (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use		(15)	15		
2. Perimeter In Non-urban Use		(10)	6		
3. Percent Of Site Being Farmed		(20)	10		
4. Protection Provided By State and Local Government		(20)	20		
5. Distance From Urban Built-up Area		(15)	0		
6. Distance To Urban Support Services		(15)	0		
7. Size Of Present Farm Unit Compared To Average		(10)	10		
8. Creation Of Non-farmable Farmland		(10)	10		
9. Availability Of Farm Support Services		(5)	4		
10. On-Farm Investments		(20)	20		
11. Effects Of Conversion On Farm Support Services		(10)	1		
12. Compatibility With Existing Agricultural Use		(10)	0		
TOTAL SITE ASSESSMENT POINTS		160	96	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	74	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	96	0	0
TOTAL POINTS (Total of above 2 lines)		260	170	0	0
Site Selected: Coamo		Date Of Selection 7/23/2024		Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>	
Reason For Selection: The Coamo site is being evaluated as a preferred alternative location for the 100 MW solar PV and 55 MW BESS facility in DOE's National Environmental Policy Act review of the project's loan guarantee application.					
Name of Federal agency representative completing this form: David A. Oster					Date: 7/23/2024

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request March 13, 2024			
Name of Project Convergent - Ponce		Federal Agency Involved U.S. Department of Energy			
Proposed Land Use Battery Energy Storage		County and State Ponce, Puerto Rico			
PART II (To be completed by NRCS)		Date Request Received By NRCS 3/15/2024		Person Completing Form: Jacqueline Vega-NRCS	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated 6,892	Average Farm Size 88
Major Crop(s) Plantains, Coffee, Vegetables	Farmable Land In Govt. Jurisdiction Acres: 73,472 % 25	Amount of Farmland As Defined in FPPA Acres: 73,472 % 25			
Name of Land Evaluation System Used LESA - PONCE (SSA -PR688)	Name of State or Local Site Assessment System N/A	Date Land Evaluation Returned by NRCS 3/18/2024			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		13			
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site		13			
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		0			
B. Total Acres Statewide Important or Local Important Farmland		12.30			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		0.0167			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		81			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		77			
PART VI (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use		(15)	15		
2. Perimeter In Non-urban Use		(10)	5		
3. Percent Of Site Being Farmed		(20)	0		
4. Protection Provided By State and Local Government		(20)	0		
5. Distance From Urban Built-up Area		(15)	0		
6. Distance To Urban Support Services		(15)	0		
7. Size Of Present Farm Unit Compared To Average		(10)	3		
8. Creation Of Non-farmable Farmland		(10)	10		
9. Availability Of Farm Support Services		(5)	2		
10. On-Farm Investments		(20)	0		
11. Effects Of Conversion On Farm Support Services		(10)	0		
12. Compatibility With Existing Agricultural Use		(10)	0		
TOTAL SITE ASSESSMENT POINTS		160	35	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	77	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	35	0	0
TOTAL POINTS (Total of above 2 lines)		260	112	0	0
Site Selected: Ponce		Date Of Selection 7/23/2024		Was A Local Site Assessment Used?	
				YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
Reason For Selection: The Ponce site is being evaluated as the preferred alternative location for the 25 MW BESS facility in DOE's National Environmental Policy Act review of the project's loan guarantee application.					
Name of Federal agency representative completing this form: David A. Oster					Date: 7/23/2024

Commonwealth of Puerto Rico
Office of the Governor
Puerto Rico Planning Board
Physical Planning Area
Land Use Planning Bureau

**Application for Certification of Consistency with the
Puerto Rico Coastal Management Program**

General Instructions:

- A. Attach a 1:20,000 scale, U.S. Geological Survey topographic quadrangular base map of the site.
- B. Attach a reasonably scaled plan or schematic design of the proposed object, indicating the following:
 1. Peripheral areas
 2. Bodies of water, tidal limit and natural systems.
- C. You may attach any further information you consider necessary for proper evaluation of the proposal.
- D. If any information requested in the questionnaire does not apply in your case, indicate by writing "N/A"(not applicable).
- E. Submit a minimum of seven (7) copies of this application.

DO NOT WRITE IN THIS BOX

Type of application: _____ Application Number: _____
Date received: _____ Date of Certification: _____
Evaluation result: Objection Acceptance Negotiation
Technician: _____ Supervisor: _____
Comments: _____

1. Name of Federal Agency: Department of Energy
2. Federal Program Catalog Number: _____
3. Type of Action:
 Federal Activity License or permit Federal Assistance
4. Name of Applicant: Convergent Peñuelas Energy Storage 1, LLC.
5. Postal Address: 7 Times Square, Suite 3504, New York, NY 10036
Telephone: 215-287-4398 Fax: _____
6. Project name: Peñuelas BESS Project
7. Physical Description of Project Location (area, facilities such as vehicular access, drainage, storm and sanitary sewer placement, etc.): The project is located within a 13.90 acre property within the CORCO industrial complex, with an access through PR-385. See Attachment A - Figures.

Lambert Coordinates: X = 166226.5075 Y = 218862.7504

8. Type of construction or other work proposed:

- drainage channeling landfill sand extraction
 pier bridge residential tourist

others (specify and explain) Battery Storage Project, requiring the construction of concrete foundations.

Description of proposed work: A 100 MW Battery Energy Storage System (BESS) consisting of an operation and maintenance structure, a substation, and the installation of containers with batteries for the storage of electrical energy, inverters and transformers on concrete foundations to supply the Puerto Rico Electric Power Authority (PREPA) electrical grid with renewable energy to avoid, reduce, or sequester greenhouse gas emissions at its power generating plants.

9. Natural, artificial, historic or cultural systems likely to be affected by the project

Place an X opposite any of the systems indicated below that are in the project area or its surroundings, which are likely to be affected by that activity. Indicate the distance from the project to any outside system that would likely be affected.

System	Within Project	Outside Project	Distance (meters)	Local name of affected system
beach, dunes		X	300 meters	Guayanilla Bay
marshes				
coral, reefs				
river, estuary		X	2,300 meters	Guayanilla River
bird sanctuary				
pond, lake, lagoon				
agricultural unit				
forest, wood				
cliff, breakwater				
cultural or tourist area				
other (explain)				

Describe the likely impact of the project on the identified system (s).

Positive Negative

Explain: The proposed project, since it is a Battery Storage only project and does not generate any wastewater or air emissions that could affect neighboring properties. The area is within a well known industrial zone where previous fuel operations have existed as early as the 1940s. The project will contribute in providing backup electricity to electrical grid without affecting the environment, as it is part of a renewable energy project.

10. Indicate permits, approvals and endorsements of the proposal by Federal and Puerto Rican government agencies. Evidence of such support should be attached to the proposal.

	Yes	No	Pending	Application Number
a. Planning Board	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
b. Regulation and Permits Administration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Construction Permit</u>
c. Environmental Quality Board	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Emergency Generator Air Emissions Permit</u>
d. Department of Natural Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Unique Incidental Permit (PUI)</u>
e. State Historic Preservation Office	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>SHPO-11-08-23-02</u>
f. U.S. Army Corps of Engineers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
g. U.S. Coast Guard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
h. Other (s) (specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>Environmental Assessment (REA) 2023-520775- REA-014412 Habitat Certification O-SE-CCH01-SJ-02794-28122023</u>

CERTIFICATION

I CERTIFY THAT (project name) **Peñuelas BESS Project** is consistent with the Puerto Rico Coastal Zone Management Program, and that to the best of my knowledge the above information is true.

Becky Koze
Name (legible)
Authorized Representative
Position

Signature
April 5, 2024
Date

APPENDIX B PERMITS AND APPROVALS

Permits and Approvals – Coamo Project

Permitting applicable to the Coamo PV/ BESS Project

Type of Permit	Entity or Institution	Status
Planning Permits and Endorsements		
Environmental Document (REA and DEA)	PR Permits Management Office (OGPe)	REA approved, SRM approved 5/16/24, DEA approved 9/10/24
Land Use Consult (Project Location for zoning approval)	OGPe	Public notice and land use consult application filed on 9/16/24. OGPe comments received 10/9/24. Responses are in progress.
Infrastructure Agency Endorsements for Interconnection Points and Infrastructure Availability (SRI) (Power, Water, Telecommunications and Access roads) PREPA PRASA NETPR DTOP/PRHTA	OGPe	PREPA – endorsement issued 2/24/24; PRASA – filed on 10/6/23; NETPR – filed on 2/28/24; PRHTA – filed on 1/31/24.
Archaeological Recommendation (SRA)	Institute of Puerto Rican Culture (ICP)	ICP issued recommendation approving Phase IA-B on 12/7/23.
PR Agriculture Department (PRAD) Consultation	PRAD	PRAD issued a no objection letter on 1/24/24.
Municipal Endorsement	Coamo Municipality	Municipality issued endorsement letter on 5/26/21.
Habitat Categorization	Department of Natural and Environmental Resources (DNER)	Filed with the DEA on 7/5/24.
Construction Permits		
Infrastructure Agency Endorsements for Final Project Drawings PREPA PRASA NETPR DTOP/PRHTA	OGPe	In progress (Sphera Group and DepCom)

Type of Permit	Entity or Institution	Status
Construction Permit (PCOC) Notice of Approval Final Construction Permit	OGPe	Not started
Single Incidental Permit (PUI) Erosion Control Tree Cutting Authorization Earthwork Activities Fugitive Emissions	OGPe	Not started
Emergency Generator Permit (PGE) for Construction and Operation	OGPe	Not started
Stormwater discharges for construction activities permit (CGP- SWPPP)	Environmental Protection Agency (EPA)	Not started
DTOP Right of Way Encroachment Permit	DTOP	Not started – to be obtained after Construction permits above
Operational Permits		
Single Permit (Includes Use (Occupancy) Permit, Sanitary License and Fire Department Endorsement)	OGPe	Not started
Air Emissions Operation Permit or PGE for Emergency Generators	OGPe	Not Applicable
Infrastructure Agency Endorsement for Operations (PREPA/LUMA)	OGPe/PREPA	Not Applicable

Permits and Approvals – BESS Projects

Permitting applicable to the BESS Projects – Peñuelas, Ponce, and Caguas

Type of Permit	Entity or Institution	Status
Planning Permits and Endorsements		
Environmental Document (REA and DEA)	PR Permits Management Office (OGPe)	<p>Caguas – REA approved on 2/28/24. DEA approved on 6/17/24;</p> <p>Peñuelas – REA approved on 4/3/24. DEA approved on 6/7/24;</p> <p>Ponce – REA approved on 3/6/24. SRA filed on 06/12/24 for Phase IA-IB archeological study. DEA to be filed upon approval of SRA.</p>
Land Use Consult (Project Location for zoning approval)	OGPe	Caguas is the only BESS project that requires the Land Use Consult. Signs were posted the week of 7/1/24. Siting consultation was filed on 8/29/24. OGPe comments are in progress.
Infrastructure Agency Endorsements for Interconnection Points and Infrastructure Availability (SRI) (Power, Water, Telecommunications and Access roads)	OGPe	<p>Caguas – SRI filed for LUMA 6/13/24 and NET 06/16/24</p> <p>Peñuelas - SRI filed for LUMA & NET 6/16/24</p> <p>Ponce – SRI filed for LUMA & NET 06/16/24</p>
Archaeological Recommendation (SRA)	OGPe – Institute of Puerto Rican Culture (ICP)	Caguas and Peñuelas, the ICP issued a no objection letter; Ponce SRA was filed 06/12/24
PR Agriculture Department (PRAD) Consultation	PRAD (if OGPe does not circulate the EA with this agency)	Ponce – PRAD issued no objection letter on 1/19/24; Caguas and Peñuelas there is no requirement of PRAD consultation.
Municipal Endorsement	Caguas, Ponce and Peñuelas Municipalities	Not started

Type of Permit	Entity or Institution	Status
Habitat Categorization	Department of Natural and Environmental Resources (DNER)	Ponce, Peñuelas and Caguas – obtained on 2/15/24;
Construction Permits		
Infrastructure Agency Endorsements for Final Project Drawings PREPA PRASA NETPR DTOP/PRHTA	OGPe	Caguas PRASA received 10/14/24 LUMA/PREPA & NET complete for all projects
Construction Permit (PCOC) Notice of Approval Final Construction Permit	OGPe	Not Started
Single Incidental Permit (PUI) Erosion Control Tree Cutting Authorization Earthwork Activities Fugitive Emissions	OGPe	Not Started
Emergency Generator Permit (PGE) for Construction and Operation	OGPe	Not Started
Stormwater discharges for construction activities permit (CGP- SWPPP)	Environmental Protection Agency (EPA)	Not Started
Operational Permits		
Single Permit (Includes Use (Occupancy) Permit, Sanitary License and Fire Department Endorsement)	OGPe	Not Started
Air Emissions Operation Permit or PGE for Emergency Generators	OGPe	Not Applicable
Infrastructure Agency Endorsement for Operations (PREPA/LUMA)	OGPe/PREPA	Not Applicable



Recomendación Ambiental

Convergent Caguas Energy Storage 1, LLC.

Fecha de Expedición:

28/FEB/2024

Datos de localización

De acuerdo a la información suministrada se propone una actividad Privado en el Distrito de Clasificación identificado a continuación:

Dirección Física

CARR. PR#1, KM. 32.4 (MARGINAL BENITEZ AUTO),
BARRIO BAIROA, , PUERTO RICO
Caguas, Puerto Rico, 00725

Número(s) de Catastro

199-054-725-22

Calificación

Distrito(s) de Calificación:

R-I (73%), C-I (22%), VIAL (5%)

Distrito en el Mapa de Inundabilidad:

X (86.0%), 0.2 PCT (11.8%), AE (2.2%)

Tipo de Suelo:

MaB (83.8%), Uv (16.2%)

Comentarios de las Divisiones al Permiso

Infraestructura

La Autoridad de Acueductos y Alcantarillados (AAA) evaluó el documento sometido en cumplimiento de su deber como agencia evaluadora, específicamente los aspectos ambientales exclusivos a nuestra jurisdicción y peritaje. Según los documentos sometidos, el proyecto consiste en la construcción de un sistema de baterías para el almacenamiento de energía eléctrica de 25 MW, incluyendo una estructura para operación y mantenimiento de aproximadamente 2,400 pies cuadrados, una subestación, y la interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica. Proyecto localizado en la PR-1 Km. 32.4 (Marginal Benitez Auto), Barrio Bairoa, del Municipio de Caguas. De manera preliminar, no se identifica que dicha propuesta según descrita en documentos presente un impacto en términos ambientales para la Autoridad de Acueductos y Alcantarillados. Destacamos del proyecto requerir servicio de agua potable y/o alcantarillado sanitario, o identificación de utilidades; el Proponente deberá someter una Solicitud de Recomendación de infraestructura (SRI) ante la Oficina de Gerencia de Permisos (OGPe). En la evaluación se determinará la disponibilidad de los servicios de agua y alcantarillado sanitario que puedan servir al mismo, requisitos y/o condiciones de endoso para conectar el proyecto. Dichas condiciones pueden incluir, pero no se limitan a: • Obras de Aumento de capacidad en el sistema potable como de alcantarillado sanitario. • Relocalización de utilidades de la AAA e identificación de servidumbres. • Construcción de obras extramuros. Esta comunicación no implica una autorización para que se conecten los servicios de agua y alcantarillado. El proponente será responsable de identificar y de reparar a su costo cualquier daño que pueda causar a las utilidades existentes de la Autoridad.

ACT contesta REA - El Programa de Construcción y Mejoras Permanentes vigente de esta Autoridad no incluye proyectos programados que pudieran verse afectados por la acción propuesta. En cuanto al aspecto ambiental no tenemos





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comentarios.

LUMA Servco LLC (LUMA), como operadora y representante de la Autoridad de Energía Eléctrica (AEE) contesta la REA - Desde el punto de vista ambiental LUMA no tiene comentarios al proyecto propuesto. No obstante, el proyecto según presentado requiere de una evaluación eléctrica para determinar los impactos que puede representar el mismo a la infraestructura de la AEE operada por LUMA. De acuerdo con Reglamento para el Proceso de Evaluación Ambiental, Reglamento Núm. 8858 de 23 de noviembre de 2016 vigente, la parte proponente deberá discutir el impacto ambiental de cada actividad propuesta que afecte nuestra infraestructura y determinar la disponibilidad de esta antes de la presentación de un documento ambiental. A esos efectos, deberá incorporar en el Documento Ambiental correspondiente las recomendaciones de la evaluación eléctrica realizada por la LUMA, que se obtenga mediante la Solicitud de Recomendación de Infraestructura (SRI) de la Oficina de Gerencia de Permisos. Le recordamos que la evaluación eléctrica caduca al año de realizada. De no comenzar los trabajos en ese periodo, se deberá solicitar una nueva evaluación eléctrica. Este comunicado no constituirá un endoso a la referida acción. Una vez cumplan con las condiciones que se establezcan en la correspondiente evaluación eléctrica, la acción propuesta se considerará endosada.

NETPR-2023-524343-REA-300014 Requisitos de Estricto Cumplimiento - El Negociado de Telecomunicaciones (NET) tiene los siguientes comentarios: El proyecto según presentado requiere de una evaluación técnica. Respecto a las recomendaciones para la instalación de infraestructura, la Parte Proponente continuara el trámite a través de la Oficina de Gerencias de Permisos (OGPe). A tales efectos autenticará con su firma digital y sello el formulario de Solicitud NETPR - F101. Es un deber esencial que la Parte Proponente certifique por ese medio, cualquier especificación, con especial atención a la infraestructura de telecomunicaciones y los puntos de conexión. 1. El dueño a través del proyectista solicitara al NET un punto de conexión a la infraestructura de telecomunicaciones. 2. Mas adelante presentara para recomendaciones y posterior autorización, un Plano de Infraestructura Soterrada de Telecomunicaciones donde certifique los requeridos detalles mínimos de construcción. Previo al otorgamiento del Permiso de Construcción, presentara a la consideración del NET un Plano de Infraestructura de Telecomunicaciones para Aprobación Final. 1. En específico el dueño o su representante constituirán mediante Plano de Inscripción y Escritura la Servidumbre de Infraestructura Soterrada de Telecomunicaciones, en estricto cumplimiento con las disposiciones del Reglamento para Endosos de Planos de Infraestructura y Servidumbres para Facilidades de Telecomunicaciones y Televisión de la Junta Reglamentadora de Telecomunicaciones de Puerto Rico, Reglamento 7393, revisado". 2. Cuando la obra este parcial o totalmente construida, presentara una Solicitud de Inspección para la requerida Certificación de Obras Construidas (COC). La COC es un requisito mandatorio para solicitar el Permiso de Uso. En cuanto a etapas posteriores de permisos, de acuerdo con las instrucciones vertidas esta recomendación está condicionada al cumplimiento específico de notificación a la Sección de Infraestructura del NET. Toda propuesta que incluya cambios que afecten nuestra infraestructura se diseñara de conformidad con las normas aplicables tal como surge del descrito Reglamento 7393, revisado". La parte proponente representara la infraestructura proyectada y determinara su viabilidad. A esos efectos, deberá incorporar en los correspondientes documentos de construcción las recomendaciones de la evaluación realizada por el NET que se obtengan prospectivamente mediante la Solicitud de Recomendación de Infraestructura (SRI) de la Oficina de Gerencia de Permisos. En las referidas etapas la Parte Proponente solicitara nuevas recomendaciones de infraestructura de telecomunicaciones. En tal eventualidad se radicarán planos certificados con el propuesto punto de conexión y los detalles de la infraestructura de telecomunicaciones. De ser necesaria una Relocalización de Planta, se exige el estricto cumplimiento con la sección 3.09 del Reglamento 7393, revisado. Estas instrucciones no constituyen una recomendación favorable a la referida acción, ni representa un relevo de cumplimiento respecto a todos los reglamentos aplicables. El NET ejercerá la autoridad delegada, evaluará cada fase inconclusa del proceso de permisos y cuando sea necesario solicitará otorgación de autorizaciones con la facultad disponible para notificar procedimientos administrativos.

Medioambiente





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Departamento de Recursos Naturales y Ambientales

El Departamento de Recursos Naturales y Ambientales (DRNA) a través de su Oficial de Permiso asignado a la Oficina de Gerencia de Permisos (OGPe) evaluó la solicitud de recomendación ambiental presentada. Se propone la construcción de un sistema de baterías para el almacenamiento de energía eléctrica con una capacidad de 25 MW, el desarrollo de una estructura para la operación y mantenimiento de aproximadamente 2,400 pies cuadrados, una subestación eléctrica y la interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica. El predio propuesto para desarrollo tiene una cabida de 5.13 cuerdas en las cuales existe un edificio con su estacionamiento, por lo que el proyecto utilizaría 2.5 cuerdas. Luego de evaluar la solicitud presentada, se emiten los siguientes comentarios y requerimientos:

- Según las imágenes de satélite y el plano de mensura y topografía del predio, se observa un canal de drenaje que proviene de la PR-52 al norte de la propiedad. El documento ambiental ni el plano esquemático hacen referencia al mismo. Es importante que se indique la distancia que estaría el proyecto a este canal. Esta área no deberá ser impactada y deberá mantener su zona de separación reglamentaria.
- Se deberá cumplir con el Reglamento sobre Normas de Diseño, Criterios y Mantenimiento para Sistemas de Alcantarillados Pluviales en Puerto Rico (Reglamento de Planificación Núm. 40 del 18 de abril de 2023).
- Deberá cumplir con las disposiciones del Reglamento para el Control de Contaminación Atmosférica, el Reglamento para el Control de la Contaminación por Ruido, el Reglamento de Estándares de Calidad de Agua, el Reglamento para el Control y la Prevención de la Contaminación Lumínica y el Reglamento para el Manejo de Desperdicios Sólidos No Peligrosos, así como obtener los permisos correspondientes relacionados a dichos reglamentos y el Reglamento para el Trámite de Permisos Generales.
- Deberá cumplir con las disposiciones de la Regla 3.4.1 ("Permiso Único Incidental Operacional"), la Sección 5.1.9.3 ("Manejo de Aguas Pluviales"), la Sección 5.1.9.4 ("Obras Pluviales") y la Sección 9.13 (Hábitat) del Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios (Reglamento Núm. 9473, con vigencia del 16 de junio de 2023, adoptado por la Junta de Planificación mediante la Resolución JP-RP-41, del 16 de junio de 2023).
- Implementar todo tipo de medidas disponibles (Plan CES, el "Storm Water Pollution Prevention Plan-SWPPP", filtros, pacas de heno, etc.) para el control de sedimentación y escorrentías que puedan afectar los cuerpos de agua. Se deberán implantar las mejores prácticas posibles (BMPs, por sus siglas en inglés) a ser ejecutadas durante cada etapa del proyecto. Las BMPs son las técnicas (zonas de amortiguamiento, cortinas de retención de sedimento, estanques de detención, surcos, etc.), programación de actividades, prácticas prohibidas, y procedimientos de mantenimiento para prevenir o reducir las descargas de contaminantes a los cuerpos de agua cercanos que pudieran afectarse durante la construcción. Asimismo, se deberán tomar medidas para evitar que residuos de sustancias orgánicas e inorgánicas tales como: aceite, combustibles y otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a los cuerpos de agua o se infiltren en el terreno.
- Según la página "Information for Planning and Consultation" (IPaC) del Servicio Federal de Pesca y Vida Silvestre (USFWS), el área que cubre este proyecto está situada dentro del alcance de la distribución geográfica de la boa de Puerto Rico (*Chilabothrus inornatus*), especie en peligro de extinción a nivel federal y estatal. Por lo que, de encontrarse individuos de dicha especie dentro de la propiedad los mismos no podrán ser perturbados y deberán ser removidos o reubicados por los biólogos del DRNA o los miembros del Cuerpo de Vigilantes de Recursos Naturales y Ambientales o por biólogos de vida silvestre bajo contrato con la parte proponente por servicios profesionales que cuenten con un permiso federal del Fish and Wildlife Service, y que el DRNA haya designado explícitamente como sus agentes para ese propósito. El proceso para la autorización del biólogo se rige por el Reglamento 6766 de 11 de febrero de 2004 (Reglamento para Regir la Conservación y Manejo de las Especies Vulnerables y en Peligro de Extinción en del Estado Libre Asociado de Puerto Rico). Este proceso se lleva a cabo en el DRNA y no en la Oficina de Gerencia de Permisos o a través de ésta. La reubicación de los individuos encontrados deberá producirse no más tarde de las 24 horas (o el próximo día laborable) a partir del momento en el que se informa el hallazgo y, hasta donde sea práctico y viable, los mismos serán reubicados en terrenos cercanos a la propiedad.
- Se deberá establecer un programa de reforestación utilizando especies nativas que además de ayudar a minimizar la erosión beneficien la vida silvestre. Esta medida es cónsona con la Ley para Fomentar la Siembra de Árboles Cuyas Frutas y/o Semillas Provean Alimento a Especies de Aves Silvestres de Puerto Rico (Ley Núm. 97 de 24 de junio de 1998), la cual establece lo siguiente: "En todo proyecto de reforestación en que se utilicen fondos públicos o privados, o en una combinación de estos, un 15% en las áreas rurales y un 10% en las áreas urbanas del total de árboles a ser sembrados, serán de especies cuyas frutas y/o semillas sirvan de alimento a las aves silvestres que residan temporal o permanentemente en ésta".
- De descubrirse en el predio objeto de desarrollo algún





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cuerpo de agua superficial o subterráneo sea perenne o intermitente, deberá informarlo inmediatamente al DRNA y demás agencias concernidas. No informar hallazgos de este tipo, así como las medidas de mitigación que se implantarán para proteger estos recursos naturales conllevará una revocación automática de la presente comunicación de no-objeción y podrá ser base para acciones legales por parte de DRNA en los foros disponibles.

Estos comentarios son solamente aplicables a la situación de hechos y los datos según presentados y evaluados en el caso y la Secretaria se reserva el derecho de reevaluar, 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 cuando surja nueva información oficial especifica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente, o cuando los mismos se emitieron bajo premisas falsas o fraudulentas.

Permisos Operacionales

La Secretaría Auxiliar de Permisos, Endosos y Servicios Especializados del DRNA ha recibido la solicitud de Recomendación Ambiental (REA) referida electrónicamente por la Oficina de Gerencia de Permisos (OGPe) relacionada con el proyecto de referencia para la correspondiente evaluación y comentarios. Convergent Caguas Energy Storage 1 LLC, propone desarrollar un predio de terreno ubicado en la Carretera PR-1, Km. 32.4 (marginal Benítez Auto), Caguas. La parcela tiene una cabida aproximada por mensura de 5.1365 cuerdas o 20,188.62 m². El proyecto propuesto utilizaría unas 2.5 cuerdas o unos 9,825.99 m² para el desarrollo del Caguas BESS, del total restante de la parcela. Este consiste en la construcción de una estructura de unos 2,400 pies cuadrados para operación y mantenimiento, una subestación, la instalación, sobre cimientos de hormigón, de contenedores con baterías para el almacenamiento de 25 MW energía eléctrica, inversores y transformadores ocupando un área de unas 2.5 cuerdas o unos 9,825.99 m². A su vez, el proyecto incluye la interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica a través del predio adyacente por el noroeste al proyecto propuesto. También en se instalarán postes en acero para las líneas de transmisión y líneas eléctricas. Además, se construirá un acceso y caminos internos y cinco (5) estacionamientos. El proyecto se interconectará a través de una conexión de 38 kV con el Centro de Transmisión Bairoa, en la municipalidad de Caguas vía una línea de subtransmisión de 38 kV que bordea la parcela (véase Figura 6, Anejo A). Se hará uso de la conexión al servicio de telecomunicaciones, agua y electricidad estatal, y previo a la construcción se estará solicitando puntos de conexión, según las recomendaciones que sean emitidas por las entidades concernidas. Se estima que el corte y relleno sea balanceado, teniendo que traer un poco de relleno, y no se anticipan demoliciones de estructuras. El DRNA emite sus comentarios al proyecto propuesto basados en la aplicación de leyes y reglamentos vigentes promulgados por la extinta ADS/JCA* (ver nota al final del documento) y entre otras regulaciones relacionadas con el manejo y disposición de los desperdicios sólidos y los materiales reciclables para las diferentes fases del proyecto, entre otras regulaciones. Las recomendaciones son de aplicabilidad al proyecto propuesto de este obtener la autorización y permisos requeridos para su ubicación, desarrollo, construcción u operación. A. Deberán cumplir con los requerimientos, comentarios y recomendaciones presentados por otras áreas del DRNA envueltas en la evaluación del proyecto propuesto. B. Tomando en consideración que el proyecto siempre y cuando haya obtenido y cumplido con las autorizaciones o permisos para su desarrollo de todas las áreas concernidas, se emiten las siguientes recomendaciones: 1. El proponente cumplirá con las regulaciones relacionadas con el manejo y disposición de los desperdicios sólidos y los materiales reciclables: a. Ley Núm. 70 - 1992, Ley para la Reducción y Reciclaje de los Desperdicios Sólidos, según enmendada, establece el desarrollo e implantación de estrategias económicamente viables y ambientalmente seguras que resulten en la disminución del volumen de desperdicios sólidos que requerirá disposición final. Como parte de estas estrategias, se considera necesario modificar las prácticas de manejo y disposición existentes para reducir la intensidad de uso de los Sistemas de Relleno Sanitario (SRS) del país. b. Reglamento para la Reducción, Reutilización y Reciclaje de Desperdicios Sólidos (Reglamento Núm. 6825 de 2004), según enmendado. (Reglamento 7940, Enmienda Reglamento Núm. 6825). Establecido a tenor con la Ley Número 70 - 1992. □ Desarrollar e implantar reglas y requisitos para establecer estrategias que disminuyan el volumen, cantidad y peligrosidad de los residuos sólidos que requerirán disposición final y propiciar su viabilidad económica y ambiental. 2. Cumplir con los requerimientos establecidos bajo el Reglamento Conjunto para la evaluación y expedición de permisos relacionados al desarrollo, uso de terrenos y operación de negocios (Reglamento Conjunto) □ Todo desarrollo propuesto deberá cumplir con las disposiciones bajo las Secciones 3.2.1.1 y 3.2.1.2, Regla 3.2.1 Permisos de Construcción, Capítulo





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3.2 Edificación y Conservación de energía; □ Capítulo 3.4 Permisos de Medioambiente, Regla 3.4.1 Permiso único incidental operacional; Secciones 3.4.1.2 y 3.4.1.3, según aplique. □ Capítulo 3.6 Permisos Generales del Tomo III Permisos para el desarrollo y negocios, según aplique. □ Cumplir con las disposiciones de la Sección 5.1.9.3 (“Manejo de Aguas Pluviales”) y la Sección 5.1.9.4 (“Obras Pluviales”) Tomo V Urbanizaciones, lotificaciones y residenciales de interés social, según aplique. □ Todo desarrollo propuesto deberá cumplir con lo dispuesto bajo la Sección 9.9.3.3 Recuperación de materiales reciclables en proyectos comerciales, industriales, institucionales, turísticos y recreativos del Capítulo 9.9 Desperdicios Sólidos, Tomo IX Infraestructura y Ambiente, según aplique. 3. Toda obra o desarrollo propuesto que realice alguna de las disposiciones incluidas en el Capítulo 3.2 Edificación y Conservación de energía Regla 3.2.1 Permisos de construcción Sección 3.2.1.1 Disposiciones generales, deberá radicar en el DRNA el Plan de Reciclaje fase de construcción para su correspondiente evaluación. Este deberá cumplir con lo siguiente (según aplique): a. Para los proyectos en los cuales no se emplee más de 10 personas, el desarrollador, proponente o contratista solicitará una Exención para la radicación del Formulario del Plan de Reciclaje para la fase de construcción. La solicitud para la exención del Plan de Reciclaje puede radicarla a través de la página del DRNA en Formularios en línea. De tener problemas puede radicarla a través de la dirección construccion@drna.pr.gov b. Para los proyectos que empleen más de 10 personas deberá radicar el Formulario del Plan de Reciclaje para la fase de Construcción, junto a un Memorial Explicativo. c. En caso de demoliciones, deberán radicar el Formulario del Plan de Reciclaje e indicar la cantidad de escombros de construcción a generarse en el proyecto que incluya alternativas para el manejo (reciclaje, reúso) y disposición. d. Tanto el Formulario del Plan de Reciclaje para la fase de construcción como de demolición puede radicarlo a través de la dirección electrónica construccion@drna.pr.gov 4. Todo desarrollo propuesto deberá promover la recuperación de materiales reciclables y el manejo y disposición tanto de los reciclables como de los desperdicios sólidos sea el adecuado, según dispuesto en cumplimiento con la reglamentación vigente para el manejo y disposición de los desperdicios sólidos no peligrosos en PR. □ Designar un área para la recuperación de materiales reciclables durante la construcción. □ Indicar la entidad responsable (municipio o compañía privada) del recogido y disposición de los desperdicios sólidos y los materiales reciclables. 5. Todo proceso de almacenaje, manejo y disposición de los desperdicios sólidos no peligrosos a ser generados durante las diferentes fases del proyecto propuesto, serán realizados en conformidad con lo estipulado bajo el Reglamento para el manejo de desperdicios no peligrosos, Reglamento Núm. 5717-1997. 6. Mantener los camiones de carga que se utilicen para transportar escombros y/o materiales de construcción cubiertos con toldos mientras estén en movimiento, para evitar la generación de polvo fugitivo. 7. Los camiones de acarreo de desperdicios deberán contar con el Permiso para Operar Servicios de Recolección o Transportación de Desperdicios Sólidos No Peligrosos (Permiso DS-1) emitido por el DRNA, para transportarlos hasta una instalación de disposición final o de reciclaje. 8. Deberán tomar las medidas necesarias para controlar el área durante la construcción para evitar exponer a los vehículos a recoger lodo, polvo, sustancias pegajosas o material viscoso en las ruedas u otras partes del vehículo, los cuales a su vez puedan ser depositados en las calles u otro sitio público y así mantener las vías públicas y alrededores del proyecto libres de acumulación de desechos de construcción. 9. Tomar las medidas necesarias para evitar que residuos de sustancias orgánicas e inorgánicas como aceites, combustibles u otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a cualquier cuerpo de agua o sistema pluvial del área. 10. Se tomará en consideración todo lo concerniente al manejo de aguas pluviales y control de escorrentías del predio. Tomar las medidas necesarias para el control de erosión y prevención de la sedimentación durante la realización de las obras. 11. Todos los materiales excedentes y escombros de construcción resultantes deberán haberse removido completamente del lugar, una vez completadas las obras. Se deberá disponer de estos de manera adecuada. 12. En relación con el uso de equipos que puedan ser fuentes de emisión atmosféricas, deberán obtener del Área de Calidad de Aire del DRNA los permisos correspondientes conforme al Reglamento Número 5300 del 28 de agosto de 1995 conocido como el Reglamento para el Control de la Contaminación Atmosférica. 13. Considerar técnicas de prevención de contaminación: a. Utilizar practicas adecuadas de mantenimiento del área b. Utilizar productos sin materiales tóxicos. c. Emplear materiales reusables o reciclables. d. Mantener los contaminantes segregados. e. Conservar el agua y los recursos energéticos. f. Rotular recipientes y contenedores, apropiadamente, para lo que estén designados. 14. En lo relacionado al nivel de sonido máximo permitido, cumplir con el Reglamento Número 8019 del 9 de mayo de 2011, conocido como el Reglamento para el Control de la Contaminación por Ruido. 15. Cumplir con el Reglamento Núm. 8786 del 9 de agosto de 2016, conocido como el “Reglamento para el Control y la Prevención de la Contaminación Lumínica” en lo relacionado a fuentes emisoras de iluminación exterior y demás requisitos aplicables al proyecto que disponga dicho reglamento. 16. Si el desarrollo





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requiere la construcción de sistemas de alcantarillados pluviales deberá cumplir con las reglamentaciones del Reglamento de Planificación Núm. 40 – Normas de Diseño, Criterios de Operación y Mantenimiento para Sistemas de Alcantarillados Pluviales en Puerto Rico vigencia 2023 de la Junta de Planificación. 17. En relación a la posible construcción de sistema para la disposición de las aguas usadas a ser generadas de no poder conectarse a AAA, recomendamos considerar los requerimientos establecidos bajo el Reglamento Núm. 3029 del 14 de septiembre de 1983, conocido como el “Reglamento para el Control de la Inyección Subterránea” y el Reglamento Núm. 4209 del 4 de mayo de 1990, conocido como el “Reglamento para la Certificación de Planos y Documentos”, para el cumplimiento de este según lo establece el reglamento y que el sistema cuente con los correspondientes permisos de construcción y operación. 18. El proponente/desarrollador/contratista del proyecto será responsable de cumplimentar las Leyes y Reglamentos antes mencionadas. Cumplirá con los permisos requeridos bajo las leyes y reglamentos vigentes. Además, de la documentación requerida por las agencias concernidas (En particular, con los requerimientos y recomendaciones de otras Áreas o Divisiones del DRNA) 19. La REA se somete ante la OGPe según lo dispuesto en la Regla 116 del Reglamento para el Proceso de Evaluación Ambiental (RPEA), como parte del procedimiento requerido para la acción propuesta y la misma es circulada a las agencias con inherencia que la OGPe estime pertinente. Según dicho Reglamento, el documento ambiental que finalmente se someta ante la OGPe, deberá cumplir con la Regla 118 en cuanto a formato y con la Regla 120 en cuanto a contenido del RPEA. Las recomendaciones emitidas aplican a los hechos presentados y evaluados al momento. El DRNA se reserva el derecho de reevaluar y modificar los mismos en el caso de surgir información oficial que identifique que las condiciones han cambiado, o cuando los comentarios hayan sido emitidos bajo premisas falsas. Además, el DRNA tiene la facultad de solicitar cualquier información adicional que entienda pertinente y que, de conformidad con las leyes y reglamentaciones vigentes, garantice el interés público y la protección del ambiente.

*Nota : “De acuerdo con el Plan de Reorganización del Departamento de Recursos Naturales y Ambientales de 2018, Ley 171 del 2 de agosto de 2018, Sección 92 – Cláusula de sustitución – Cualquier referencia a la Autoridad de Desperdicios Sólidos, contenida en cualquier ley, reglamento o documento oficial del Gobierno de Puerto Rico se entenderá enmendada a los efectos de referirse al Departamento de Recursos Naturales y Ambientales que se entenderá como su sucesor para todos los fines legales correspondientes.”

Arqueología y Conservación Histórica

COMENTARIO FINAL DE LOS PROGRAMAS DE PATRIMONIO HISTÓRICO EDIFICADO Y ARQUEOLOGÍA Y ETNOHISTORIA DEL ICP A CASO NÚM: 2023-524343-REA-300014-- PROYECTO: CONVERGENT CAGUAS ENERGY STORAGE 1, LLC.-- I. BASE LEGAL: Se emite el siguiente comentario en base a la Ley 374 del 14 de marzo de 1949, según enmendada, Ley de Zonas Antiguas o Históricas y Zonas de Interés Turístico, Ley 3 del 2 de marzo de 1951, Ley de Edificios y otras Estructuras Históricas y la Ley 89 del 21 de junio de 1955, según enmendada, conocida como Ley Orgánica del Instituto de Cultura Puertorriqueña y la Ley 161 del 1 de diciembre de 2009, conocida como Ley para la Reforma del Proceso de Permisos de Puerto Rico. Estas leyes le confieren jurisdicción sobre los siguientes asuntos: 1. Edificios, lugares y zonas incluidas en el Registro de Sitios y Zonas Históricas de Puerto Rico de la Junta de Planificación (REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS); 2. Edificios, lugares y zonas declaradas históricas a través de legislación (o de resolución de la JUNTA DE DIRECTORES DEL ICP; 3. Plazas de recreo y edificios circundantes (REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS); 4. Propiedades zonificadas “P” construidas previo a 1960 (RESOLUCIÓN JPE-25 Y RESOLUCIÓN JPE-047); 5. Propiedades zonificadas “CRH”, “SH” o “R-ZH”- Según REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS; 6. Propiedades elegibles a sitios históricos; propiedades de valor histórico que satisfacen los criterios de elegibilidad como sitios históricos para ser designada como tal individualmente (LEY NÚM. 89 DE 1955; REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS); II. PROGRAMA





Recomendación Ambiental

DE PATRIMONIO HISTORICO EDIFICADO (PPHE): ICP-PPHE: Emisión de comentarios: No OBJECIÓN--- 2023-524343-REA-300014; CONVERGENT CAGUAS ENERGY STORAGE 1, LLC.; Catastro: 199-054-725-22; De acuerdo a nuestros expedientes y la información provista la propiedad: 1. Se proponen obras de construcción para el desarrollo de un sistema de baterías para el almacenamiento de energía eléctrica con una capacidad de 25 MW, que incluye una interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica, la construcción de una estructura para operación y mantenimiento de aproximadamente 2,400 pies cuadrados, y una subestación eléctrica. 2. La propiedad NO es al momento Sitio Histórico designado, ni es parte de una Zona Histórica, según estos conceptos están definidos por el tomo XII (12), parte III, definiciones S-67, Z-12[=13] y Z-13[=14], y elaborados en el tomo X (10), del Reglamento de Emergencia, Reglamento 41 de la Junta de Planificación con vigencia del 16 de junio de 2023. 3. No es un Monumento Histórico declarado según este concepto está definido por el Tomo XII, Glosario de la Junta de Planificación, parte III, definición M-55 del Reglamento de Emergencia, Reglamento 41 de la Junta de Planificación con vigencia del 16 de junio de 2023. 4. No se localiza en centro fundacional, entiéndase plaza de recreo y bloques circundantes. 5. La propiedad NO presenta componentes visibles sobre la tierra con valor histórico evidente. 6. El proyecto propuesto NO implica impacto adverso a recursos culturales conocidos pertenecientes al patrimonio histórico construido. ---En este marco de referencia, el PPHE emite su NO OBJECIÓN al proyecto.--- Este comentario, no incluye los elementos a ser evaluados por el Programa de Arqueología y Etnohistoria del ICP. La Ley 161-2009, según enmendada, Artículo 19.6, enmienda las Secciones 2 y 3 de la Ley Núm. 112 de 20 de julio de 1988, según enmendada, conocida como "Ley de Protección del Patrimonio Arqueológico Terrestre de Puerto Rico", a los fines de transferir al Instituto de Cultura Puertorriqueña toda facultad, deber u obligación referente a la evaluación para la otorgación o denegación de determinaciones finales o permisos, esto en coordinación con la Oficina de Gerencia de Permisos. Este documento tiene vigencia de un año a partir de su expedición. III. PROGRAMA DE ARQUEOLOGIA Y ETNOHISTORIA (PAE). Base Legal: La Ley 161-2009, según enmendada, Artículo 19.6, enmienda las Secciones 2 y 3 de la Ley Núm. 112 de 20 de julio de 1988, según enmendada, conocida como "Ley de Protección del Patrimonio Arqueológico Terrestre de Puerto Rico", a los fines de transferir al Instituto de Cultura Puertorriqueña toda facultad, deber u obligación referente a la evaluación para la otorgación o denegación de determinaciones finales o permisos, esto en coordinación con la Oficina de Gerencia de Permisos. El Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operaciones de Negocios (RC-2020); registrado en el Departamento de Estado de Puerto Rico bajo el Número 9233 con vigencia de 2 de enero de 2021, establece, entre otros, lo siguiente: a. Regla 2.1.8, Sección 2.1.8.7, Inciso "b": Todo proyecto público o privado que conlleve movimiento de terreno, excavación, extracción de corteza terrestre o construcción, reconstrucciones o canalizaciones deberá solicitar a la División o Unidad de Evaluación Ambiental (DECA) la recomendación del ICP sobre Arqueología y Conservación Histórica, ya sea a través de la OGPe, los Municipios Autónomos con Jerarquía 1 a la III o el Profesional Autorizado. b. CAPÍTULO 10.2, Sección 10.2.1.2 se requerirá la recomendación del ICP en todos los Permisos relacionados con construcción, reconstrucción, trabajos de excavación, extracción o movimiento de tierras en lugar alguno del que haya documentación previa o indicios fidedignos de presencia de material arqueológico. Incluye los centros fundacionales de los municipios, entiéndase, plaza de recreo y bloques circundantes, conforme a la Ley 89-1955, supra, Sección 4. —Propósitos, Funciones y Poderes del Instituto. (18 L.P.R.A. sec. 1198) y la Ley Número 112 del 20 de julio de 1988, conocida como la "Ley de Protección del Patrimonio Arqueológico Terrestre", según enmendada. IV. EVALUACIÓN PROGRAMA DE ARQUEOLOGIA Y ETNOHISTORIA: ICP-PAE: AUTORIZACIÓN. El Programa de Arqueología y Etnohistoria (PAE) del Instituto de Cultura Puertorriqueña (ICP) evaluó los documentos relacionados al proyecto en referencia, recibidos a través de la Oficina de Gerencia de Permisos (OGPe). La evaluación realizada sugiere que, basado en los datos existentes al presente, las probabilidades de impactar un recurso arqueológico, según definido por la Ley 112 del 20 de julio de 1988, según enmendada, son mínimas. Por lo tanto, en lo concerniente a recursos culturales de naturaleza arqueológica, no tenemos objeción al proyecto según fue radicado y evaluado. Le notificamos que el proponente queda sujeto a las responsabilidades y obligaciones que impone la Ley 112 del 20 de julio de 1988. Esta establece que, se deberá paralizar todo tipo de actividad de excavación, movimiento y remoción de corteza terrestre, y notificar en un plazo de veinticuatro (24) horas al PAE, en caso de que, durante el desarrollo del proyecto, se descubra o impacte algún depósito, elemento, estructura o vestigio de naturaleza arqueológica. Se le apercibe que el incumplimiento de estos requerimientos será objeto de sanciones administrativas según lo establecido en la citada ley. Esta autorización tiene vigencia de un (1) año.

División de Evaluación de Cumplimiento Ambiental





Recomendación Ambiental

En el Documento de Evaluación Ambiental (DEA) que se someta se deberá atender los comentarios y requerimientos que hayan emitido las agencias comentadoras. La DEA deberá ser tramitada a través del Single Business Portal (SBP).

Se incluyen los comentarios del Departamento de Recursos Naturales y Ambientales (JCA y ADS) bajo la División de Medioambiente.

Condiciones Generales

Esta recomendación es solamente aplicable a la situación de hechos y los datos según presentados y evaluados en el caso. La OGPe se reserva el derecho de reevaluar, variar o modificar el mismo en cualquier momento anterior a la emisión del permiso o requerir la acción administrativa correspondiente por parte de la agencia solicitante o proponente cuando surja nueva información oficial específica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente, o cuando la recomendación original se emitió bajo premisas falsas o fraudulentas.

Habido recibido los comentarios de las agencias gubernamentales concernidas. Esta información será utilizada para la presentación del Documento Ambiental correspondiente a ser evaluado por la División de Evaluación de Cumplimiento Ambiental.

Vigencia

Las vigencias de las diferentes agencias del proceso de recomendación serán los establecidos en las comunicaciones que en estas emitan conforme a sus reglamentos. Esta recomendación ambiental tendrá una vigencia de trescientos sesenta y cinco (365) días a partir de su expedición.

Condiciones Especiales

NINGUNA

Firma / Sellos

Fecha de Expedición:

28/FEB/2024





Determinación de Cumplimiento Ambiental para Evaluación Ambiental

Convergent Caguas Energy Storage 1, LLC.

Fecha de Expedición:

17/JUN/2024

Datos de Determinación

Presentado por

Municipio Autónomo de Caguas

Número de Caso

2023-524343-DEA-300165

Dirección Física

CARR. PR#1, KM. 32.4 (MARGINAL BENITEZ AUTO),
BARRIO BAIROA, CAGUAS, PUERTO RICO, , Puerto
Rico, 00725

Casos de Referencia

2023-524343-REA-300014

Número(s) de Catastro

199-054-725-22

Acción Propuesta

La Acción Propuesta consiste en un proyecto: Privado en el Distrito de Clasificación identificado a continuación. El mismo tiene los siguientes componentes:

Calificación

Distrito(s) de Calificación:

R-I (73%), C-I (22%), VIAL (5%)

Distrito en el Mapa de Inundabilidad:

X (86.0%), 0.2 PCT (11.8%), AE (2.2%)

Tipo de Suelo:

MaB (83.8%), Uv (16.2%)

Movimiento de Tierra

Volumen: 2210 metros cúbicos

Volumen de corte: 2210 metros cúbicos

Volumen de relleno: 2290 metros cúbicos

Demolición

Conlleva demolición: No

Conlleva explosivos: No

Cabida del proyecto (Área Total Según Escritura)

21332.51 metros cuadrados

Instalación de Generadores de Electricidad

Conlleva generadores: Sí

Capacidad: 1500 kW

Servidumbres Existentes

Acueductos (AAA), Alcantarillado (AAA), Electricidad (AAE)

Tanque: 5000 galones

Desperdicios Sólidos

Volumen en construcción: 15 yardas cúbicas

Tipo: NP

Volumen en operación: 10 yardas cúbicas

Tipo: NP

Descripción





Determinación de Cumplimiento Ambiental para Evaluación Ambiental

El proyecto consiste en la construcción de una estructura de unos 2,400 pies cuadrados para operación y mantenimiento, una subestación, la instalación, sobre cimientos de hormigón, de contenedores con baterías para el almacenamiento de 25 MW energía eléctrica, inversores y transformadores ocupando un área de unas 2.5 cuerdas o unos 9,825.99 metros cuadrados (m²). A su vez, el proyecto incluye la interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica a través del predio adyacente por el noroeste al proyecto propuesto. También en se instalarán postes en acero para las líneas de transmisión y líneas eléctricas. Además, se construirá un acceso y caminos internos y cinco (5) estacionamientos. El proyecto se interconectará a través de una conexión de 38 kV con el Centro de Transmisión Bairoa, en la municipalidad de Caguas vía una línea de sub-transmisión de 38 kV que bordea la parcela. Se hará uso de la conexión al servicio de telecomunicaciones, agua y electricidad estatal, y previo a la construcción se estará solicitando puntos de conexión, según las recomendaciones que sean emitidas por las entidades concernidas.

Se estima que el corte y relleno sea balanceado, teniendo que traer un poco de relleno, y no se anticipan demoliciones de estructuras.

El proyecto propuesto contempla la operación de un generador de electricidad para emergencias.

Impactos al Ambiente y Medidas de Mitigación

No habrá un impacto significativo asociado con la construcción y operación del proyecto, los posibles impactos y las medidas de mitigación a utilizarse serán los siguientes:

Emanaciones de equipos de construcción: Operación y mantenimiento apropiado de equipos y maquinarias. Prohibir que los motores operen excesivamente con el vehículo parado.

Polvos Fugitivos: Humedecer, pavimentar, sembrar vegetación o tratar de otras formas los terrenos expuestos; cubrir los materiales generadores de polvo durante la transportación de estos; limitar actividades generadoras de polvo cuando haya mucho viento; barrer las calles y/o lavar las gomas de los camiones que salgan del área de construcción

Emanaciones de vehículos de motor por trastornos y desvíos del tráfico: Plan de Mantenimiento y Protección del Tráfico

Instalación del generador de emergencia: Permisos de operación para fuentes de emisión atmosférica estacionaria para este generador del DRNA/OGPe; Plan de contingencia para evitar derrames de combustible.

Posible generación de desperdicios sólidos peligrosos y no peligrosos: Programa de Salud y Seguridad para Materiales Peligrosos y Plan de Reacción de Emergencia.

Ruidos perturbadores de las actividades de construcción: se establecerá límites de horarios, de actividades y su duración
Uso de amortiguadores de ruidos para motores.

Algunos de los controles de erosión que se pondrán en práctica durante la etapa de construcción son: (a) Identificación de los lugares de entrada/salida de vehículos pesados en el área de construcción; (b) Instalación de mallas sintéticas





Determinación de Cumplimiento Ambiental para Evaluación Ambiental

("silt fence") y trampas para la retención de sedimentos; (c) Instalación de bermas de tierra al pie de las laderas antes de comenzar a despejar y remover terreno; (d) Luego de la instalación de las rejillas de drenaje propuestas a lo largo del proyecto se construirán charcas para atrapar los sedimentos a la salida de las alcantarillas y se colocarán pacas de heno a la entrada de cada rejilla para reducir el transporte de sedimentos; y (e) Al finalizar los trabajos de nivelación, aquellas áreas que no van a pavimentarse se estabilizarán mediante sembrados de grama, paja y hojas, para propiciar el desarrollo de la vegetación. No aplica la deforestación por tanto los árboles existentes permanecerán.

Una vez culminen las actividades de construcción se estima no será necesaria la implementación de medidas de control de erosión y sedimentación debido a que el estacionamiento estará debidamente pavimentado y las áreas no pavimentadas estarán estabilizadas. Las escorrentías pluviales discurrirán a través de sistema pluvial a existente.

El predio del proyecto cuenta con la Certificación de Categorización de Hábitat para Vida Silvestre del Departamento de Recursos Naturales y Ambientales, emitida el 15 de febrero de 2024, donde se categoriza el predio como Hábitat Natural con Bajo Potencial de Convertirse en Hábitat Esencial, de Alto Valor Ecológico o de Valor Ecológico (Categoría 6).

Determinación

Luego de revisado y analizado el expediente administrativo y discutidos todos los méritos del documento ambiental, al amparo de los poderes y facultades que le confiere a esta Oficina de Gerencia de Permisos, (en adelante "OGPe") la Ley Núm. 161 - 2009, según enmendada y el Reglamento para el Proceso de Evaluación Ambiental de la Junta de Calidad Ambiental (en adelante "RPEA"), RESOLVEMOS:

- La Evaluación Ambiental (en adelante, "EA") sometida por la Agencia Proponente para la acción propuesta, cumple con todos los requisitos de la Ley sobre Política Pública Ambiental, Ley Número 416 - 2004, según enmendada, y con el RPEA. En dicho documento ambiental fueron adecuadamente considerados y analizados los impactos ambientales que conlleva la acción, por lo que se aprueba el mismo, dando así por terminado el proceso de evaluación ambiental.
- De conformidad con el RPEA, las medidas de mitigación contenidas en el documento ambiental serán obligatorias y constituirán las medidas mínimas a tomarse en consideración para proteger el ambiente. La Agencia Proponente requerirá a las agencias con jurisdicción que incluyan las medidas de mitigación como condición indispensable de sus permisos.
- La Agencia Proponente deberá procurar que al momento de llevarse a cabo el desarrollo del Proyecto, las recomendaciones emitidas por los Gerentes de Permisos de la OGPe sean adecuadamente observadas y consideradas. Asimismo, la Agencia Proponente será responsable de velar que la acción, de llevarse a cabo, se desarrolle acorde con la información suministrada en el documento ambiental presentado apercibiéndosele que, los permisos que administran las entidades gubernamentales en relación al cumplimiento de las mismas están supeditados a la información y datos contenidos en documento ambiental.
- Si luego de haberse dado cumplimiento con el Artículo 4 de la Ley Núm. 416, supra, surgieran variaciones sustanciales en la acción propuesta, según definida en el RPEA, la Agencia Proponente será responsable de evaluar dichos impactos mediante el documento ambiental que entienda correspondiente.
- Se le apercibe que esta determinación de cumplimiento ambiental no será revisable hasta tanto se emita una determinación final, cuyo componente sea la presente determinación.

Recomendación y/o Comentarios del Director de la División de Cumplimiento Ambiental

El proyecto fue evaluado bajo el procedimiento expedito a tenor con la Orden Ejecutiva del Gobernador emitida bajo el Boletín Administrativo Núm. OE-2023-003 y la Orden Administrativa OGPe 2023-01.





Determinación de Cumplimiento Ambiental para Evaluación Ambiental

1. Solicitar a través de la Oficina de Gerencia de Permisos (OGPe) el Permiso Único Incidental Operacional, a tenor con la Regla 3.4.1 del Reglamento Núm. 9473, vigencia 16 de junio de 2023, conocido como el "Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios".
2. Todo proceso de almacenaje, manejo y disposición de los desperdicios sólidos no peligrosos a ser generados durante las diferentes fases del proyecto propuesto, serán realizados en conformidad con lo estipulado bajo el Reglamento para el manejo de desperdicios no peligrosos, Reglamento Núm. 5717-1997.
3. Mantener los camiones de carga que se utilicen para transportar escombros y/o materiales de construcción cubiertos con toldos mientras estén en movimiento, para evitar la generación de polvo fugitivo.
4. Los camiones de acarreo de desperdicios deberán contar con el Permiso para Operar Servicios de Recolección o Transportación de Desperdicios Sólidos No Peligrosos (Permiso DS-1) emitido por el DRNA, para transportarlos hasta una instalación de disposición final o de reciclaje.
5. Tomar las medidas necesarias para controlar el área durante la construcción para evitar exponer a los vehículos a recoger lodo, polvo, sustancias pegajosas o material viscoso en las ruedas u otras partes del vehículo, los cuales a su vez puedan ser depositados en las calles u otro sitio público y así mantener las vías públicas y alrededores del proyecto libres de acumulación de desechos de construcción.
6. Tomar las medidas necesarias para evitar que residuos de sustancias orgánicas e inorgánicas tales como: aceites, combustibles u otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a cualquier cuerpo de agua o al sistema pluvial.
7. De tener alguna descarga de escorrentía a cualquier cuerpo de agua durante la operación, deberá consultar a la Agencia Federal de Protección Ambiental para determinar si dichas descargas requieren un permiso "NPDES" de acuerdo al Código Federal de Reglamentación Número 40, Sección 122.26 (b) (14) (x).
8. Se deberá establecer un programa de reforestación utilizando especies nativas que además de ayudar a minimizar la erosión beneficien la vida silvestre. Esta medida es cónsona con la Ley para Fomentar la Siembra de Árboles Cuyas Frutas y/o Semillas Provean Alimento a Especies de Aves Silvestres de Puerto Rico (Ley Núm. 97 de 24 de junio de 1998), la cual establece lo siguiente: "En todo proyecto de reforestación en que se utilicen fondos públicos o privados, o en una combinación de estos, un 15% en las áreas rurales y un 10% en las áreas urbanas del total de árboles a ser sembrados, serán de especies cuyas frutas y/o semillas sirvan de alimento a las aves silvestres que residan temporal o permanentemente en ésta".
9. Para operar generadores de electricidad con capacidad mayor de diez (10) caballos de fuerza y una operación no mayor de quinientas (500) horas al año, deberán obtener a través de la OGPe, el Permiso General que establece el Reglamento para el Trámite de los Permisos Generales, que incluye el Permiso de Fuente de Emisión.
10. En relación con tanques sobre tierra que se utilicen para almacenar combustibles o sustancias químicas, se deberá presentar ante el Área de Calidad de Agua del DRNA, un Plan de Emergencia, reflejando las acciones a tomar para evitar, controlar y remediar derrames de combustibles o sustancias químicas, a tenor con la Regla 1306.5 del Reglamento Núm. 9079 del 26 de abril de 2019, conocido como el "Reglamento de Estándares de Calidad de Agua de Puerto Rico".
11. Revisar el Plan de Emergencia de la facilidad de manera que se aseguren que este incluya todos los tanques instalados sobre tierra, utilizados para el almacenamiento de combustible(s), materias primas o cualquier sustancia química; y de ser requerido se deberá presentar el mismo ante el Área de Calidad de Agua del DRNA, reflejando las acciones a tomar para evitar, controlar y remediar derrames de combustible(s), materias primas o cualquier sustancia química, a tenor con la Regla 1306.5 del Reglamento Núm. 9079 del 26 de abril de 2019, conocido como el "Reglamento





Determinación de Cumplimiento Ambiental para Evaluación Ambiental

de Estándares de Calidad de Agua de Puerto Rico”.

12. Cumplir con las disposiciones del Reglamento de Planificación Núm. 13 (Reglamento sobre Áreas Especiales de Peligro a Inundación).

13. Relacionado al nivel de sonido máximo permitido, cumplir con el Reglamento Número 8019 del 9 de mayo de 2011, conocido como el Reglamento para el Control de la Contaminación por Ruido.

14. Cumplir con el Reglamento Núm. 8786 del 9 de agosto de 2016, conocido como el “Reglamento para el Control y la Prevención de la Contaminación Lumínica” en lo relacionado a fuentes emisoras de iluminación exterior y demás requisitos aplicables al proyecto que disponga dicho reglamento.

15. Deberá paralizar todo tipo de actividad de excavación, movimiento y remoción de corteza terrestre, y notificar en un plazo de veinticuatro (24) horas al Programa de Arqueología y Etnohistoria, en caso de que, durante el desarrollo del proyecto, se descubra o impacte algún depósito, elemento, estructura o vestigio de naturaleza arqueológica.

16. Cumplir con los requerimientos de las agencias concernientes y con las recomendaciones (2023-524343-REA-300014) emitidas para el proyecto.

17. Las recomendaciones y requisitos presentados en esta comunicación no eximen de cualquier otro requerimiento o permiso de esta Oficina u otras agencias concernidas, que sean aplicables a la acción propuesta.

Firma / Sellos

CERTIFICO: Que he notificado copia fiel y exacta de la presente determinación con sus anejos, bajo mi firma, a la Agencia Proponente.

Fecha de Expedición:

17/JUN/2024





Recomendación Ambiental

Convergent Penuelas Energy Storage 1, LLC.

Fecha de Expedición:

03/APR/2024

Datos de localización

De acuerdo a la información suministrada se propone una actividad Privado en el Distrito de Clasificación identificado a continuación:

Dirección Física

PR-127, KM. 15.8
PEÑUELAS- INDUSTRIAL AREA
BARRIO TALLABOA PONIENTE
PEÑUELAS, P.R., 00624
Guayanilla, Puerto Rico, 00624

Número(s) de Catastro

386-000-010-02

Calificación

Distrito(s) de Calificación:

I-P

Distrito en el Mapa de Inundabilidad:

X

Tipo de Suelo:

SNS (70.3%), AhF (29.7%)

Comentarios de las Divisiones al Permiso

Infraestructura

La Autoridad de Acueductos y Alcantarillados (AAA) evaluó el documento sometido en cumplimiento de su deber como agencia evaluadora, específicamente los aspectos ambientales exclusivos a nuestra jurisdicción y peritaje. Según los documentos sometidos el proyecto consiste en la construcción de un sistema de baterías para el almacenamiento de energía eléctrica con una capacidad de 100 MW, el desarrollo de una estructura para la operación y mantenimiento, y una subestación eléctrica. Proyecto localizado en la PR-127 Km 15.8 en el área Industrial del Barrio Tallaboa entre los Municipios de Peñuelas y Guayanilla. De manera preliminar, no se identifica que dicha propuesta según descrita en documentos presente un impacto en términos ambientales para la Autoridad de Acueductos y Alcantarillados, no obstante, se deberá consultar al DRNA para el cumplimiento con las leyes y reglamentos aplicables. Destacamos del proyecto requerir servicio de agua potable y/o alcantarillado sanitario, o identificación de utilidades; el Proponente deberá someter una Solicitud de Recomendación de infraestructura (SRI) ante la Oficina de Gerencia de Permisos (OGPe). En la evaluación se determinará la disponibilidad de los servicios de agua y alcantarillado sanitario que puedan servir al mismo, requisitos y/o condiciones de endoso para conectar el proyecto. Dichas condiciones pueden incluir, pero no se limitan a:

- Obras de Aumento de capacidad en el sistema potable como de alcantarillado sanitario.
- Relocalización de utilidades de la AAA e identificación de servidumbres.
- Construcción de obras extramuros. Esta comunicación no implica una autorización para que se conecten los servicios de agua y alcantarillado. El proponente será responsable de identificar y de reparar a su costo cualquier daño que pueda causar a las utilidades existentes de la Autoridad.

Datos de permiso

Dueño

Convergent Penuelas Energy Storage 1 LLC

Cabida (Área Total Según Escritura)

80983.21 MC

Servidumbres Existentes

Electricidad (AAE),





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ACT contesta REA - El Programa de Construcción y Mejoras Permanentes vigente de esta Autoridad no incluye proyectos programados que pudieran verse afectados por la acción propuesta. En cuanto al aspecto ambiental no tenemos comentarios.

LUMA Servco LLC (LUMA), como operadora y representante de la Autoridad de Energía Eléctrica (AEE) contesta la REA - Desde el punto de vista ambiental LUMA no tiene comentarios al proyecto propuesto. No obstante, el proyecto según presentado requiere de una evaluación eléctrica para determinar los impactos que puede representar el mismo a la infraestructura de la AEE operada por LUMA. De acuerdo con Reglamento para el Proceso de Evaluación Ambiental, Reglamento Núm. 8858 de 23 de noviembre de 2016 vigente, la parte proponente deberá discutir el impacto ambiental de cada actividad propuesta que afecte nuestra infraestructura y determinar la disponibilidad de esta antes de la presentación de un documento ambiental. A esos efectos, deberá incorporar en el Documento Ambiental correspondiente las recomendaciones de la evaluación eléctrica realizada por la LUMA, que se obtenga mediante la Solicitud de Recomendación de Infraestructura (SRI) de la Oficina de Gerencia de Permisos. Le recordamos que la evaluación eléctrica caduca al año de realizada. De no comenzar los trabajos en ese periodo, se deberá solicitar una nueva evaluación eléctrica. Este comunicado no constituirá un endoso a la referida acción. Una vez cumplan con las condiciones que se establezcan en la correspondiente evaluación eléctrica, la acción propuesta se considerará endosada.

NETPR-2023-520775-REA-014412 Requisitos de Estricto Cumplimiento - El Negociado de Telecomunicaciones (NET) tiene los siguientes comentarios: El proyecto según presentado requiere de una evaluación técnica. Respecto a las recomendaciones para la instalación de infraestructura, la Parte Proponente continuara el trámite a través de la Oficina de Gerencias de Permisos (OGPe). A tales efectos autenticará con su firma digital y sello el formulario de Solicitud NETPR - F101. Es un deber esencial que la Parte Proponente certifique por ese medio, cualquier especificación, con especial atención a la infraestructura de telecomunicaciones y los puntos de conexión. 1. El dueño a través del proyectista solicitara al NET un punto de conexión a la infraestructura de telecomunicaciones. 2. Mas adelante presentara para recomendaciones y posterior autorización, un Plano de Infraestructura Soterrada de Telecomunicaciones donde certifique los requeridos detalles mínimos de construcción. Previo al otorgamiento del Permiso de Construcción, presentara a la consideración del NET un Plano de Infraestructura de Telecomunicaciones para Aprobación Final. 1. En específico el dueño o su representante constituirán mediante Plano de Inscripción y Escritura la Servidumbre de Infraestructura Soterrada de Telecomunicaciones, en estricto cumplimiento con las disposiciones del Reglamento para Endosos de Planos de Infraestructura y Servidumbres para Facilidades de Telecomunicaciones y Televisión de la Junta Reglamentadora de Telecomunicaciones de Puerto Rico, Reglamento 7393, revisado". 2. Cuando la obra este parcial o totalmente construida, presentara una Solicitud de Inspección para la requerida Certificación de Obras Construidas (COC). La COC es un requisito mandatorio para solicitar el Permiso de Uso. En cuanto a etapas posteriores de permisos, de acuerdo con las instrucciones vertidas esta recomendación está condicionada al cumplimiento específico de notificación a la Sección de Infraestructura del NET. Toda propuesta que incluya cambios que afecten nuestra infraestructura se diseñara de conformidad con las normas aplicables tal como surge del descrito Reglamento 7393, revisado". La parte proponente representara la infraestructura proyectada y determinara su viabilidad. A esos efectos, deberá incorporar en los correspondientes documentos de construcción las recomendaciones de la evaluación realizada por el NET que se obtengan prospectivamente mediante la Solicitud de Recomendación de Infraestructura (SRI) de la Oficina de Gerencia de Permisos. En las referidas etapas la Parte Proponente solicitara nuevas recomendaciones de infraestructura de telecomunicaciones. En tal eventualidad se radicarán planos certificados con el propuesto punto de conexión y los detalles de la infraestructura de telecomunicaciones. De ser necesaria una Relocalización de Planta, se exige el estricto cumplimiento con la sección 3.09 del Reglamento 7393, revisado. Estas instrucciones no constituyen una recomendación favorable a la referida acción, ni representa un relevo de cumplimiento respecto a todos los reglamentos aplicables. El NET ejercerá la autoridad delegada, evaluará cada fase inconclusa del proceso de permisos y cuando sea necesario solicitará otorgación de autorizaciones con la facultad disponible para notificar procedimientos administrativos.

Medioambiente





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Departamento de Recursos Naturales y Ambientales

El Departamento de Recursos Naturales y Ambientales (DRNA) a través de su Oficial de Permiso asignado a la Oficina de Gerencia de Permisos (OGPe) evaluó la solicitud de recomendación ambiental presentada. Se propone la instalación de un sistema de baterías para el almacenamiento de energía eléctrica con una capacidad de 100 MW, el desarrollo de una estructura para la operación y mantenimiento, una subestación eléctrica y la interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica. El predio propuesto para desarrollo ubica en la antigua Commonwealth Oil Refining Company, Inc. (CORCO), por lo que tiene una zonificación de Industrial Pesado (I-P) y una clasificación de suelo urbano (SU). El proyecto estaría impactando un área de aproximada de 7.0 cuerdas de un predio con cabida de 21.2206 cuerdas según mensura. Luego de evaluar la solicitud presentada, se emiten los siguientes comentarios y requerimientos: • Según el cuadrángulo topográfico de Yauco del USGS por la colindancia oeste del predio discurre una quebrada. El documento ambiental no hace referencia a la misma, su condición actual, ni la distancia del proyecto a la misma. Esto debe ser aclarado en el documento ambiental. Se apercibe que, para todo proyecto en colindancia con una quebrada, se deberá mantener un retiro de cinco (5) metros mínimos de ancho medidos desde el borde su cauce. Esta faja, deberá segregarse como lote independiente y dedicarse a uso público a favor del Municipio de Guayanilla conforme al Artículo 2 de la Ley Núm. 49 del 4 de enero de 2003, según enmendada por la Ley Núm. 55 de 22 de enero de 2004. Dicha faja debe estar ilustrada en el plano del proyecto. Asimismo, no se deberá impactar el cauce mayor de la quebrada. • Una parte en el noroeste y suroeste del predio ha identificada como un Área con Prioridad de Conservación (APC) para el guabairo (*Antrostomus noctitherus*), especie endémica y en peligro de extinción. Este APC se establece al amparo de la Ley Núm. 150 de 4 de agosto de 1988, conocida como Ley para crear el Programa de Patrimonio Natural de Puerto Rico. Aunque se reconoce que la finca ha sido previamente impactada, esta área coincide en parte con la quebrada que discurre en la colindancia del predio. Lo anterior implica que se debe mantener dicha área sin impactos y reforestada. • Se deberá cumplir con el Reglamento sobre Normas de Diseño, Criterios y Mantenimiento para Sistemas de Alcantarillados Pluviales en Puerto Rico (Reglamento de Planificación Núm. 40 del 18 de abril de 2023). • Deberá cumplir con las disposiciones del Reglamento para el Control de Contaminación Atmosférica, el Reglamento para el Control de la Contaminación por Ruido, el Reglamento de Estándares de Calidad de Agua, el Reglamento para el Control y la Prevención de la Contaminación Lumínica y el Reglamento para el Manejo de Desperdicios Sólidos No Peligrosos, así como obtener los permisos correspondientes relacionados a dichos reglamentos y el Reglamento para el Trámite de Permisos Generales. • Deberá cumplir con las disposiciones de la Regla 3.4.1 (“Permiso Único Incidental Operacional”), la Sección 5.1.9.3 (“Manejo de Aguas Pluviales”), la Sección 5.1.9.4 (“Obras Pluviales”) y la Sección 9.13 (Hábitat) del Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios (Reglamento Núm. 9473, con vigencia del 16 de junio de 2023, adoptado por la Junta de Planificación mediante la Resolución JP-RP-41, del 16 de junio de 2023). • Implementar todo tipo de medidas disponibles (Plan CES, el “Storm Water Pollution Prevention Plan-SWPPP”, filtros, pacas de heno, etc.) para el control de sedimentación y escorrentías que puedan afectar los cuerpos de agua. Se deberán implantar las mejores prácticas posibles (BMPs, por sus siglas en inglés) a ser ejecutadas durante cada etapa del proyecto. Las BMPs son las técnicas (zonas de amortiguamiento, cortinas de retención de sedimento, estanques de detención, surcos, etc.), programación de actividades, prácticas prohibidas, y procedimientos de mantenimiento para prevenir o reducir las descargas de contaminantes a los cuerpos de agua cercanos que pudieran afectarse durante la construcción. Asimismo, se deberán tomar medidas para evitar que residuos de sustancias orgánicas e inorgánicas tales como: aceite: combustibles y otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a los cuerpos de agua o se infiltren en el terreno. • Según la página “Information for Planning and Consultation” (IPaC) del Servicio Federal de Pesca y Vida Silvestre (USFWS), el área que cubre este proyecto está situada dentro del alcance de la distribución geográfica del guabairo (*Caprimulgus noctitherus*) y la boa de Puerto Rico (*Chilabothrus inornatus*), especies en peligro de extinción a nivel federal y estatal. Por lo que, de encontrarse individuos de dichas especies dentro de la propiedad los mismos no podrán ser perturbados y deberán ser removidos o reubicados por los biólogos del DRNA o los miembros del Cuerpo de Vigilantes de Recursos Naturales y Ambientales o por biólogos de vida silvestre bajo contrato con la parte proponente por servicios profesionales que cuenten con un permiso federal del Fish and Wildlife Service, y que el DRNA haya designado explícitamente como sus agentes para ese propósito. El proceso para la autorización del biólogo se rige por el Reglamento 6766 de 11 de febrero de 2004 (Reglamento para Regir la





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Conservación y Manejo de las Especies Vulnerables y en Peligro de Extinción en del Estado Libre Asociado de Puerto Rico). Este proceso se lleva a cabo en el DRNA y no en la OGPe o a través de ésta. La reubicación de los individuos encontrados deberá producirse no más tarde de las 24 horas (o el próximo día laborable) a partir del momento en el que se informa el hallazgo y, hasta donde sea práctico y viable, los mismos serán reubicados en terrenos cercanos a la propiedad. • Se deberá establecer un programa de reforestación utilizando especies nativas que además de ayudar a minimizar la erosión beneficien la vida silvestre. Esta medida es cónsona con la Ley para Fomentar la Siembra de Árboles Cuyas Frutas y/o Semillas Provean Alimento a Especies de Aves Silvestres de Puerto Rico (Ley Núm. 97 de 24 de junio de 1998), la cual establece lo siguiente: "En todo proyecto de reforestación en que se utilicen fondos públicos o privados, o en una combinación de estos, un 15% en las áreas rurales y un 10% en las áreas urbanas del total de árboles a ser sembrados, serán de especies cuyas frutas y/o semillas sirvan de alimento a las aves silvestres que residan temporal o permanentemente en ésta". • De descubrirse en el predio objeto de desarrollo cuerpo de agua superficial o subterráneo, sea perenne o intermitente, deberá informarlo inmediatamente al DRNA y demás agencias concernidas. No informar hallazgos de este tipo, así como las medidas de mitigación que se implantarán para proteger estos recursos naturales conllevará una revocación automática de la presente comunicación de no-objeción y podrá ser base para acciones legales por parte de DRNA en los foros disponibles.

Estos comentarios son solamente aplicables a la situación de hechos y los datos según presentados y evaluados en el caso y la Secretaria se reserva el derecho de reevaluar, 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 cuando surja nueva información oficial específica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente, o cuando los mismos se emitieron bajo premisas falsas o fraudulentas.

Permisos Operacionales

La Secretaría Auxiliar de Permisos, Endosos y Servicios Especializados del DRNA ha recibido la solicitud de Recomendación Ambiental (REA) referida electrónicamente por la Oficina de Gerencia de Permisos (OGPe) relacionada con el proyecto de referencia para la correspondiente evaluación y comentarios. Se propone desarrollar un predio que según mensura se compone de 21.2206 cuerdas ó 83,405.3010 m², en los predios de la antigua Commonwealth Oil Refining Company, Inc. (CORCO). Esto localiza en la Carretera PR-127, Km 15.8, Área Industrial Peñuelas-Guayanilla, Barrios Tallaboa Poniente y Saliente, Peñuelas. El predio propuesto tiene una zonificación de Industrial Pesado (I-P) y los suelos están clasificados suelo urbano (SU). El predio propuesto tiene una zonificación de Industrial Pesado (I-P) y los suelos están clasificados suelo urbano (SU). El proyecto consiste en la construcción de una estructura para operación y mantenimiento del proyecto, una subestación, y un sistema de baterías para el almacenamiento de energía eléctrica de 100 MW, incluyendo la interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica. El proyecto en su totalidad deberá estar afectando un área de aproximadamente 7.0 cuerdas (27,550.76 m²). Se hará uso de la conexión al servicio de telecomunicaciones, agua y electricidad estatal y previo a la construcción estará solicitando puntos de conexión, según las recomendaciones a las entidades concernidas. Se estima que el corte y relleno sea balanceado y no se anticipan demoliciones de estructuras, no obstante, se demolerá una losa de hormigón existente. El DRNA emite sus comentarios al proyecto propuesto basados en la aplicación de leyes y reglamentos vigentes promulgados por la extinta ADS/JCA*(ver nota al final del documento) y entre otras regulaciones relacionadas con el manejo y disposición de los desperdicios sólidos y los materiales reciclables para las diferentes fases del proyecto, entre otras regulaciones. Las recomendaciones son de aplicabilidad al proyecto propuesto de este obtener la autorización y permisos requeridos para su ubicación, desarrollo, construcción u operación. A. Deberán cumplir con los requerimientos, comentarios y recomendaciones presentados por otras áreas del DRNA envueltas en la evaluación del proyecto propuesto. B. Tomando en consideración que el proyecto siempre y cuando haya obtenido y cumplido con las autorizaciones o permisos para su desarrollo de todas las áreas concernidas, se emiten las siguientes recomendaciones: 1. El proponente cumplirá con las regulaciones relacionadas con el manejo y disposición de los desperdicios sólidos y los materiales reciclables: a. Ley Núm. 70 - 1992, Ley para la Reducción y Reciclaje de los Desperdicios Sólidos, según enmendada, establece el desarrollo e implantación de estrategias económicamente viables y ambientalmente seguras que resulten en la disminución del





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volumen de desperdicios sólidos que requerirá disposición final. Como parte de estas estrategias, se considera necesario modificar las prácticas de manejo y disposición existentes para reducir la intensidad de uso de los Sistemas de Relleno Sanitario (SRS) del país. b. Reglamento para la Reducción, Reutilización y Reciclaje de Desperdicios Sólidos (Reglamento Núm. 6825 de 2004), según enmendado. (Reglamento 7940, Enmienda Reglamento Núm. 6825). Establecido a tenor con la Ley Número 70 - 1992. Desarrollar e implantar reglas y requisitos para establecer estrategias que disminuyan el volumen, cantidad y peligrosidad de los residuos sólidos que requerirán disposición final y propiciar su viabilidad económica y ambiental. 2. Cumplir con los requerimientos establecidos bajo el Reglamento Conjunto para la evaluación y expedición de permisos relacionados al desarrollo, uso de terrenos y operación de negocios (Reglamento Conjunto) Todo desarrollo propuesto deberá cumplir con las disposiciones bajo las Secciones 3.2.1.1 y 3.2.1.2, Regla 3.2.1 Permisos de Construcción, Capítulo 3.2 Edificación y Conservación de energía; Capítulo 3.4 Permisos de Medioambiente, Regla 3.4.1 Permiso único incidental operacional; Secciones 3.4.1.2 y 3.4.1.3, según aplique. Capítulo 3.6 Permisos Generales del Tomo III Permisos para el desarrollo y negocios, según aplique. Cumplir con las disposiciones de la Sección 5.1.9.3 ("Manejo de Aguas Pluviales") y la Sección 5.1.9.4 ("Obras Pluviales") Tomo V Urbanizaciones, lotificaciones y residenciales de interés social, según aplique. Todo desarrollo propuesto deberá cumplir con lo dispuesto bajo la Sección 9.9.3.3 Recuperación de materiales reciclables en proyectos comerciales, industriales, institucionales, turísticos y recreativos del Capítulo 9.9 Desperdicios Sólidos, Tomo IX Infraestructura y Ambiente, según aplique. 3. Toda obra o desarrollo propuesto que realice alguna de las disposiciones incluidas en el Capítulo 3.2 Edificación y Conservación de energía Regla 3.2.1 Permisos de construcción Sección 3.2.1.1 Disposiciones generales, deberá radicar en el DRNA el Plan de Reciclaje fase de construcción para su correspondiente evaluación. Este deberá cumplir con lo siguiente (según aplique): a. Para los proyectos en los cuales no se emplee más de 10 personas, el desarrollador, proponente o contratista solicitará una Exención para la radicación del Formulario del Plan de Reciclaje para la fase de construcción. La solicitud para la exención del Plan de Reciclaje puede radicarla a través de la página del DRNA en Formularios en línea. De tener problemas puede radicarla a través de la dirección construccion@drna.pr.gov b. Para los proyectos que empleen más de 10 personas deberá radicar el Formulario del Plan de Reciclaje para la fase de Construcción, junto a un Memorial Explicativo. c. En caso de demoliciones, deberán radicar el Formulario del Plan de Reciclaje e indicar la cantidad de escombros de construcción a generarse en el proyecto que incluya alternativas para el manejo (reciclaje, reúso) y disposición. d. Tanto el Formulario del Plan de Reciclaje para la fase de construcción como de demolición puede radicarlo a través de la dirección electrónica construccion@drna.pr.gov 4. Todo desarrollo propuesto deberá promover la recuperación de materiales reciclables y el manejo y disposición tanto de los reciclables como de los desperdicios sólidos sea el adecuado, según dispuesto en cumplimiento con la reglamentación vigente para el manejo y disposición de los desperdicios sólidos no peligrosos en PR. Designar un área para la recuperación de materiales reciclables durante la construcción. Indicar la entidad responsable (municipio o compañía privada) del recogido y disposición de los desperdicios sólidos y los materiales reciclables. 5. Todo proceso de almacenaje, manejo y disposición de los desperdicios sólidos no peligrosos a ser generados durante las diferentes fases del proyecto propuesto, serán realizados en conformidad con lo estipulado bajo el Reglamento para el manejo de desperdicios no peligrosos, Reglamento Núm. 5717-1997. 6. Mantener los camiones de carga que se utilicen para transportar escombros y/o materiales de construcción cubiertos con toldos mientras estén en movimiento, para evitar la generación de polvo fugitivo. 7. Los camiones de acarreo de desperdicios deberán contar con el Permiso para Operar Servicios de Recolección o Transportación de Desperdicios Sólidos No Peligrosos (Permiso DS-1) emitido por el DRNA, para transportarlos hasta una instalación de disposición final o de reciclaje. 8. Deberán tomar las medidas necesarias para controlar el área durante la construcción para evitar exponer a los vehículos a recoger lodo, polvo, sustancias pegajosas o material viscoso en las ruedas u otras partes del vehículo, los cuales a su vez puedan ser depositados en las calles u otro sitio público y así mantener las vías públicas y alrededores del proyecto libres de acumulación de desechos de construcción. 9. Tomar las medidas necesarias para evitar que residuos de sustancias orgánicas e inorgánicas como aceites, combustibles u otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a cualquier cuerpo de agua o sistema pluvial del área. 10. Se tomará en consideración todo lo concerniente al manejo de aguas pluviales y control de escorrentías del predio. Tomar las medidas necesarias para el control de erosión y prevención de la sedimentación durante la realización de las obras. 11. Todos los materiales excedentes y escombros de construcción resultantes deberán haberse removido completamente del lugar, una vez completadas las obras. Se deberá disponer de estos de manera adecuada. 12. En relación con el uso de equipos que puedan ser fuentes de emisión atmosféricas, deberán obtener del Área de Calidad de Aire del DRNA los permisos





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correspondientes conforme al Reglamento Número 5300 del 28 de agosto de 1995 conocido como el Reglamento para el Control de la Contaminación Atmosférica. 13. Considerar técnicas de prevención de contaminación: a. Utilizar practicas adecuadas de mantenimiento del área b. Utilizar productos sin materiales tóxicos. c. Emplear materiales reusables o reciclables. d. Mantener los contaminantes segregados. e. Conservar el agua y los recursos energéticos. f. Rotular recipientes y contenedores, apropiadamente, para lo que estén designados. 14. En lo relacionado al nivel de sonido máximo permitido, cumplir con el Reglamento Número 8019 del 9 de mayo de 2011, conocido como el Reglamento para el Control de la Contaminación por Ruido. 15. Cumplir con el Reglamento Núm. 8786 del 9 de agosto de 2016, conocido como el “Reglamento para el Control y la Prevención de la Contaminación Lumínica” en lo relacionado a fuentes emisoras de iluminación exterior y demás requisitos aplicables al proyecto que disponga dicho reglamento. 16. Si el desarrollo requiere la construcción de sistemas de alcantarillados pluviales deberá cumplir con las reglamentaciones del Reglamento de Planificación Núm. 40 – Normas de Diseño, Criterios de Operación y Mantenimiento para Sistemas de Alcantarillados Pluviales en Puerto Rico vigencia 2023 de la Junta de Planificación. 17. En relación a la posible construcción de sistema para la disposición de las aguas usadas a ser generadas de no poder conectarse a AAA, recomendamos considerar los requerimientos establecidos bajo el Reglamento Núm. 3029 del 14 de septiembre de 1983, conocido como el “Reglamento para el Control de la Inyección Subterránea” y el Reglamento Núm. 4209 del 4 de mayo de 1990, conocido como el “Reglamento para la Certificación de Planos y Documentos”, para el cumplimiento de este según lo establece el reglamento y que el sistema cuente con los correspondientes permisos de construcción y operación. 18. El proponente/desarrollador/contratista del proyecto será responsable de cumplimentar las Leyes y Reglamentos antes mencionadas. Cumplirá con los permisos requeridos bajo las leyes y reglamentos vigentes. Además, de la documentación requerida por las agencias concernidas (En particular, con los requerimientos y recomendaciones de otras Áreas o Divisiones del DRNA) 19. La REA se somete ante la OGPe según lo dispuesto en la Regla 116 del Reglamento para el Proceso de Evaluación Ambiental (RPEA), como parte del procedimiento requerido para la acción propuesta y la misma es circulada a las agencias con inherencia que la OGPe estime pertinente. Según dicho Reglamento, el documento ambiental que finalmente se someta ante la OGPe, deberá cumplir con la Regla 118 en cuanto a formato y con la Regla 120 en cuanto a contenido del RPEA. Las recomendaciones emitidas aplican a los hechos presentados y evaluados al momento. El DRNA se reserva el derecho de reevaluar y modificar los mismos en el caso de surgir información oficial que identifique que las condiciones han cambiado, o cuando los comentarios hayan sido emitidos bajo premisas falsas. Además, el DRNA tiene la facultad de solicitar cualquier información adicional que entienda pertinente y que, de conformidad con las leyes y reglamentaciones vigentes, garantice el interés público y la protección del ambiente.

*Nota : “De acuerdo con el Plan de Reorganización del Departamento de Recursos Naturales y Ambientales de 2018, Ley 171 del 2 de agosto de 2018, Sección 92 – Cláusula de sustitución – Cualquier referencia a la Autoridad de Desperdicios Sólidos, contenida en cualquier ley, reglamento o documento oficial del Gobierno de Puerto Rico se entenderá enmendada a los efectos de referirse al Departamento de Recursos Naturales y Ambientales que se entenderá como su sucesor para todos los fines legales correspondientes.”

Arqueología y Conservación Histórica

COMENTARIO FINAL DEL PROGRAMA DE PATRIMONIO HISTÓRICO EDIFICADO Y DEL PROGRAMA DE ARQUEOLOGÍA Y ETNOHISTORIA DEL INSTITUTO DE CULTURA PUERTORRIQUEÑA PARA EL CASO OGPe NÚM: 2023-520775-REA-014412; PROYECTO: CONVERGENT PEÑUELAS ENERGY STORAGE 1, LLC. PEÑUELAS-GUAYANILLA; CATASTRO: 386-000-010-02 I. BASE LEGAL DE PPHE: Se emite el siguiente comentario en base a la Ley 374 del 14 de marzo de 1949, según enmendada, Ley de Zonas Antiguas o Históricas y Zonas de Interés Turístico, Ley 3 del 2 de marzo de 1951, Ley de Edificios y otras Estructuras Históricas y la Ley 89 del 21 de junio de 1955, según enmendada, conocida como Ley Orgánica del Instituto de Cultura Puertorriqueña y la Ley 161 del 1 de diciembre de 2009, conocida como Ley para la Reforma del Proceso de Permisos de Puerto Rico. Estas leyes le confieren jurisdicción sobre los siguientes asuntos: 1. Edificios, lugares y zonas incluidas en el Registro de Sitios y Zonas Históricas de Puerto Rico de la Junta de Planificación (REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS); 2. Edificios, lugares y zonas declaradas históricas a través de legislación (o de resolución de la JUNTA DE DIRECTORES DEL ICP); 3. Plazas de recreo y edificios circundantes (REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS





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RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS); 4. Propiedades zonificadas "P" construidas previo a 1960 (RESOLUCIÓN JPE-25 Y RESOLUCIÓN JPE-047); 5. Propiedades zonificadas "CRH", "SH" o "R-ZH"- Según REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS; 6. Propiedades elegibles a sitios históricos; propiedades de valor histórico que satisfacen los criterios de elegibilidad como sitios históricos para ser designada como tal individualmente (LEY NÚM. 89 DE 1955; REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS). II. PROGRAMA DE PATRIMONIO HISTORICO EDIFICADO (PPHE): EMISION DE COMENTARIOS. De acuerdo con nuestros expedientes y la información provista la propiedad: 1. Se propone la construcción de una estructura para operación y mantenimiento del proyecto, una subestación, y un sistema de baterías para el almacenamiento de energía eléctrica de 100 MW, incluyendo la interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica. 2. La propiedad donde se llevarán a cabo las obras relacionadas a la acción propuesta no es al momento un Sitio Histórico designado, ni es parte de una Zona Histórica según estos conceptos están definidos por el tomo XII (12), parte III, definiciones S-67, Z-12 y elaborados en el tomo X (10), del Reglamento Conjunto de Emergencia (JP-RP-41). 3. Tampoco se identifica como un Monumento Histórico declarado según este concepto está definido por el Tomo XII Glosario de la Junta de Planificación, parte III, definición M-55 del Reglamento Conjunto de Emergencia (JP-RP-41). 4. La propiedad NO está localizada en bloque perimetral a la plaza de recreo (centro fundacional); 5. La propiedad no se identifica como una propiedad elegible a sitio histórico, de valor histórico - arquitectónico o parte del patrimonio histórico edificado del municipio donde se localiza. 6. El proyecto propuesto no implica impacto adverso a recursos culturales conocidos pertenecientes al patrimonio histórico construido. 7. Este comentario, no incluye los elementos a ser evaluados por el Programa de Arqueología y Etnohistoria del ICP. La Ley 161-2009, según enmendada, Artículo 19.6, enmienda las Secciones 2 y 3 de la Ley Núm. 112 de 20 de julio de 1988, según enmendada, conocida como "Ley de Protección del Patrimonio Arqueológico Terrestre de Puerto Rico", a los fines de transferir al Instituto de Cultura Puertorriqueña toda facultad, deber u obligación referente a la evaluación para la otorgación o denegación de determinaciones finales o permisos, esto en coordinación con la Oficina de Gerencia de Permisos. 8. Esta emisión de comentarios tiene vigencia de un año a partir de su expedición. III. PROGRAMA DE ARQUEOLOGÍA Y ETNOHISTORIA (PAE). BASE LEGAL: La Ley 161-2009, según enmendada, Artículo 19.6, enmienda las Secciones 2 y 3 de la Ley Núm. 112 de 20 de julio de 1988, según enmendada, conocida como "Ley de Protección del Patrimonio Arqueológico Terrestre de Puerto Rico", a los fines de transferir al Instituto de Cultura Puertorriqueña toda facultad, deber u obligación referente a la evaluación para la otorgación o denegación de determinaciones finales o permisos, esto en coordinación con la Oficina de Gerencia de Permisos. El Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operaciones de Negocios (RC-2020); registrado en el Departamento de Estado de Puerto Rico bajo el Número 9233 con vigencia de 2 de enero de 2021, establece, entre otros, lo siguiente: a. Regla 2.1.8, Sección 2.1.8.7, Inciso "b": Todo proyecto público o privado que conlleve movimiento de terreno, excavación, extracción de corteza terrestre o construcción, reconstrucciones o canalizaciones deberá solicitar a la División o Unidad de Evaluación Ambiental (DECA) la recomendación del ICP sobre Arqueología y Conservación Histórica, ya sea a través de la OGPe, los Municipios Autónomos con Jerarquía 1 a la III o el Profesional Autorizado. b. CAPÍTULO 10.2, Sección 10.2.1.2 se requerirá la recomendación del ICP en todos los Permisos relacionados con construcción, reconstrucción, trabajos de excavación, extracción o movimiento de tierras en lugar alguno del que haya documentación previa o indicios fidedignos de presencia de material arqueológico. Incluye los centros fundacionales de los municipios, entiéndase, plaza de recreo y bloques circundantes, conforme a la Ley 89-1955, supra, Sección 4. Propósitos, Funciones y Poderes del Instituto. (18 L.P.R.A. sec. 1198) y la Ley Número 112 del 20 de julio de 1988, conocida como la "Ley de Protección del Patrimonio Arqueológico Terrestre", según enmendada. IV. EVALUACIÓN DEL PROGRAMA DE ARQUEOLOGÍA Y ETNOHISTORIA: EMITE AUTORIZACIÓN: El Programa de Arqueología y Etnohistoria (PAE) del Instituto de Cultura Puertorriqueña (ICP) ha evaluado los documentos relacionados al proyecto de referencia, recibidos a través de la Oficina de Gerencia de Permisos (OGPe). En los expedientes del PAE, consta una autorización con fecha del 11 de julio de 2021, emitida para el proyecto Desmantelamiento y Demolición del Antiguo Terminal Shell, Guayanilla bajo el caso numero 2012-REA-00347. Dicho proyecto ocupa en el mismo predio del proyecto en cuestión (2023-520775-REA-014412). La presente evaluación sugiere que, basado en los datos existentes al presente, las probabilidades de impactar un recurso arqueológico, según definido por la Ley 112 del 20 de julio de 1988, según enmendada, son mínimas. Por lo tanto, en lo concerniente a recursos culturales de naturaleza arqueológica, no tenemos objeción al proyecto según fue





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radicado y evaluado. Le notificamos que con esta autorización el proponente queda sujeto a las responsabilidades y obligaciones que impone la Ley 112 del 20 de julio de 1988, según enmendada. Esta establece que, se deberá paralizar todo tipo de actividad de excavación, movimiento y remoción de la corteza terrestre, y notificar en un plazo de veinticuatro (24) horas al Programa de Arqueología y Etnohistoria, en caso de que, durante el desarrollo del proyecto, se descubra o impacte algún depósito, elemento, estructura o vestigio de naturaleza arqueológica. Se le apercibe que el incumplimiento de estos requerimientos será objeto de sanciones administrativas según lo establecido en la citada ley. La presente comunicación tendrá vigencia de un (1) año, contado a partir de la fecha en que fue emitida la misma.

División de Evaluación de Cumplimiento Ambiental

En el Documento de Evaluación Ambiental (DEA) que se someta se deberá atender los comentarios y requerimientos que hayan emitido las agencias comentadoras. La DEA deberá ser tramitada a través del Single Business Portal (SBP).

Se incluyen los comentarios del Departamento de Recursos Naturales y Ambientales (JCA y ADS) bajo la División de Medioambiente.

Condiciones Generales

Esta recomendación es solamente aplicable a la situación de hechos y los datos según presentados y evaluados en el caso. La OGPe se reserva el derecho de reevaluar, variar o modificar el mismo en cualquier momento anterior a la emisión del permiso o requerir la acción administrativa correspondiente por parte de la agencia solicitante o proponente cuando surja nueva información oficial específica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente, o cuando la recomendación original se emitió bajo premisas falsas o fraudulentas.

Habido recibido los comentarios de las agencias gubernamentales concernidas. Esta información será utilizada para la presentación del Documento Ambiental correspondiente a ser evaluado por la División de Evaluación de Cumplimiento Ambiental.

Vigencia

Las vigencias de las diferentes agencias del proceso de recomendación serán los establecidos en las comunicaciones que en estas emitan conforme a sus reglamentos. Esta recomendación ambiental tendrá una vigencia de trescientos sesenta y cinco (365) días a partir de su expedición.

Condiciones Especiales

NINGUNA





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Firma / Sellos

Fecha de Expedición:

03/APR/2024





Determinación de Cumplimiento Ambiental para Evaluación Ambiental

Convergent Penuelas Energy Storage 1, LLC.

Fecha de Expedición:

07/JUN/2024

Datos de Determinación

Presentado por

OGPE

Número de Caso

2023-520775-DEA-300186

Dirección Física

PR-127, KM. 15.8
PEÑUELAS-GUAYANILLA INDUSTRIAL AREA
BARRIO TALLABOA PONIENTE
PEÑUELAS, P.R., 00624, GUAYANILLA, Puerto Rico,
00624

Casos de Referencia

2023-520775-REA-014412

Número(s) de Catastro

386-000-010-02

Acción Propuesta

La Acción Propuesta consiste en un proyecto: Privado en el Distrito de Clasificación identificado a continuación. El mismo tiene los siguientes componentes:

Calificación

Distrito(s) de Calificación:

I-P

Distrito en el Mapa de Inundabilidad:

X

Tipo de Suelo:

SNS (70.3%), AhF (29.7%)

Cabida del proyecto (Área Total Según Escritura)

80983.21 metros cuadrados

Servidumbres Existentes

Electricidad (AAE)

Movimiento de Tierra

Volumen: 9500 metros cúbicos

Volumen de corte: 9500 metros cúbicos

Volumen de relleno: 9500 metros cúbicos

Demolición

Conlleva demolición: No

Conlleva explosivos: No

Instalación de Generadores de Electricidad

Conlleva generadores: Sí

Capacidad: 1500 kW

Tanque: 5000 galones

Desperdicios Sólidos

Volumen en construcción: 10 yardas cúbicas

Tipo: NP

Volumen en operación: 5 yardas cúbicas

Tipo: NP

Descripción

El proyecto propuesto consiste en la construcción de una estructura para la operación y mantenimiento del proyecto, una





Determinación de Cumplimiento Ambiental para Evaluación Ambiental

subestación, y el establecimiento de un sistema de baterías para el almacenamiento de energía eléctrica con una capacidad de 100 MW, incluyendo la interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica.

El proyecto según propuesto, incluye todo lo siguiente: 1) Creación de Camino de Acceso en la Propiedad; 2) Instalación de 128 contenedores de baterías con una capacidad individual de aproximadamente 4.073 MWh cada uno; 3) Instalación de 23 sistemas de conversión de electricidad ("PCS", por sus siglas en inglés) que permitirán conectar el proyecto al sistema de red eléctrica; cada sistema de conversión de electricidad consiste de 2 inversores con una capacidad individual de 3.414 MVA y 1 transformador "step-up" de una capacidad de 7.4 MVA 4) Centro de Control de Manejo de Sistema Eléctrico; 5) Interconexión al sistema eléctrico de la AEE, mediante la instalación de una subestación dentro de la propiedad; la subestación consiste de 7 circuitos de medio voltaje de los contenedores de baterías, 3 interruptores de medio voltaje que se interconectan en una barra de medio voltaje (34.5 kV) y 1 transformador "step-up" de una capacidad de 120 MVA que aumenta el voltaje a 115 kV. 6) Instalación de cinco (5) generadores de electricidad para emergencias, uno de aproximadamente 75 KW y otros cuatro generadores de 1.5 MW, cuya operación no excederá de 500 horas al año.

Impactos al Ambiente y Medidas de Mitigación

No habrá un impacto significativo asociado con la construcción y uso del proyecto, los posibles impactos y las medidas de mitigación a utilizarse serán los siguientes:

Recursos Atmosféricos:

Emanaciones de Equipos de Construcción: Operación y mantenimiento apropiado de equipos y maquinarias. Prohibir que los motores operen excesivamente con el vehículo parado.

Polvos Fugitivos: Humedecer, pavimentar, sembrar vegetación o tratar de otras formas los terrenos expuestos; cubrir los materiales generadores de polvo durante la transportación de estos; limitar actividades generadoras de polvo cuando haya mucho viento; barrer las calles y/o lavar las gomas de los camiones que salgan del área de construcción.

Emanaciones de vehículos de motor por trastornos del tráfico: Plan de Mantenimiento y Protección del Tráfico

Instalación del generador de emergencia: Permisos de operación para fuentes de emisión atmosférica estacionaria para este generador del DRNA/OGPe; Plan de contingencia para evitar derrames de combustible.

Posible generación de desperdicios sólidos peligrosos y no peligrosos: Programa de Salud y Seguridad para Materiales Peligrosos y Plan de Reacción de Emergencia

Ruidos perturbadores de las actividades de construcción: Límites de horarios, de actividades y su duración. Uso de amortiguadores de ruidos para motores.

El predio del proyecto cuenta con la Certificación de Categorización de Hábitat para Vida Silvestre del Departamento de Recursos Naturales y Ambientales, emitida el 15 de febrero de 2024, donde se categoriza el predio como Hábitat Natural con Bajo Potencial de Convertirse en Hábitat Esencial, de Alto Valor Ecológico o de Valor Ecológico (Categoría 6).

Determinación





Determinación de Cumplimiento Ambiental para Evaluación Ambiental

Luego de revisado y analizado el expediente administrativo y discutidos todos los méritos del documento ambiental, al amparo de los poderes y facultades que le confiere a esta Oficina de Gerencia de Permisos, (en adelante "OGPe") la Ley Núm. 161 - 2009, según enmendada y el Reglamento para el Proceso de Evaluación Ambiental de la Junta de Calidad Ambiental (en adelante "RPEA"), RESOLVEMOS:

- La Evaluación Ambiental (en adelante, "EA") sometida por la Agencia Proponente para la acción propuesta, cumple con todos los requisitos de la Ley sobre Política Pública Ambiental, Ley Número 416 - 2004, según enmendada, y con el RPEA. En dicho documento ambiental fueron adecuadamente considerados y analizados los impactos ambientales que conlleva la acción, por lo que se aprueba el mismo, dando así por terminado el proceso de evaluación ambiental.
- De conformidad con el RPEA, las medidas de mitigación contenidas en el documento ambiental serán obligatorias y constituirán las medidas mínimas a tomarse en consideración para proteger el ambiente. La Agencia Proponente requerirá a las agencias con jurisdicción que incluyan las medidas de mitigación como condición indispensable de sus permisos.
- La Agencia Proponente deberá procurar que al momento de llevarse a cabo el desarrollo del Proyecto, las recomendaciones emitidas por los Gerentes de Permisos de la OGPe sean adecuadamente observadas y consideradas. Asimismo, la Agencia Proponente será responsable de velar que la acción, de llevarse a cabo, se desarrolle acorde con la información suministrada en el documento ambiental presentado apercibiéndosele que, los permisos que administran las entidades gubernamentales en relación al cumplimiento de las mismas están supeditados a la información y datos contenidos en documento ambiental.
- Si luego de haberse dado cumplimiento con el Artículo 4 de la Ley Núm. 416, supra, surgieran variaciones sustanciales en la acción propuesta, según definida en el RPEA, la Agencia Proponente será responsable de evaluar dichos impactos mediante el documento ambiental que entienda correspondiente.
- Se le apercibe que esta determinación de cumplimiento ambiental no será revisable hasta tanto se emita una determinación final, cuyo componente sea la presente determinación.

Recomendación y/o Comentarios del Director de la División de Cumplimiento Ambiental

El proyecto fue evaluado bajo el procedimiento expedito a tenor con la Orden Ejecutiva del Gobernador emitida bajo el Boletín Administrativo Núm. OE-2023-003 y la Orden Administrativa OGPe 2023-01.

1. Solicitar a través de la Oficina de Gerencia de Permisos (OGPe) el Permiso Único Incidental Operacional, a tenor con la Regla 3.4.1 del Reglamento Núm. 9473, vigencia 16 de junio de 2023, conocido como el "Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios".
2. Todo proceso de almacenaje, manejo y disposición de los desperdicios sólidos no peligrosos a ser generados durante las diferentes fases del proyecto propuesto, serán realizados en conformidad con lo estipulado bajo el Reglamento para el manejo de desperdicios no peligrosos, Reglamento Núm. 5717-1997.
3. Mantener los camiones de carga que se utilicen para transportar escombros y/o materiales de construcción cubiertos con toldos mientras estén en movimiento, para evitar la generación de polvo fugitivo.
4. Los camiones de acarreo de desperdicios deberán contar con el Permiso para Operar Servicios de Recolección o Transportación de Desperdicios Sólidos No Peligrosos (Permiso DS-1) emitido por el DRNA, para transportarlos hasta una instalación de disposición final o de reciclaje.
5. Tomar las medidas necesarias para controlar el área durante la construcción para evitar exponer a los vehículos a recoger lodo, polvo, sustancias pegajosas o material viscoso en las ruedas u otras partes del vehículo, los cuales a su vez puedan ser depositados en las calles u otro sitio público y así mantener las vías públicas y alrededores del proyecto libres





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de acumulación de desechos de construcción.

6. Tomar las medidas necesarias para evitar que residuos de sustancias orgánicas e inorgánicas tales como: aceites, combustibles u otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a cualquier cuerpo de agua o al sistema pluvial.

7. De tener alguna descarga de escorrentía a cualquier cuerpo de agua durante la operación, deberá consultar a la Agencia Federal de Protección Ambiental para determinar si dichas descargas requieren un permiso "NPDES" de acuerdo al Código Federal de Reglamentación Número 40, Sección 122.26 (b) (14) (x).

8. Cumplir con la Sección 5.1.2.2 Análisis de Riesgos a Deslizamientos y otras Condiciones del Subsuelo del Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios.

9. Se deberá establecer un programa de reforestación utilizando especies nativas que además de ayudar a minimizar la erosión beneficien la vida silvestre. Esta medida es cónsona con la Ley para Fomentar la Siembra de Árboles Cuyas Frutas y/o Semillas Provean Alimento a Especies de Aves Silvestres de Puerto Rico (Ley Núm. 97 de 24 de junio de 1998), la cual establece lo siguiente: "En todo proyecto de reforestación en que se utilicen fondos públicos o privados, o en una combinación de estos, un 15% en las áreas rurales y un 10% en las áreas urbanas del total de árboles a ser sembrados, serán de especies cuyas frutas y/o semillas sirvan de alimento a las aves silvestres que residan temporal o permanentemente en ésta".

10. Para operar generadores de electricidad con capacidad mayor de diez (10) caballos de fuerza y una operación no mayor de quinientas (500) horas al año, deberán obtener a través de la OGP, el Permiso General que establece el Reglamento para el Trámite de los Permisos Generales, que incluye el Permiso de Fuente de Emisión.

11. En relación con tanques sobre tierra que se utilicen para almacenar combustibles o sustancias químicas, se deberá presentar ante el Área de Calidad de Agua del DRNA, un Plan de Emergencia, reflejando las acciones a tomar para evitar, controlar y remediar derrames de combustibles o sustancias químicas, a tenor con la Regla 1306.5 del Reglamento Núm. 9079 del 26 de abril de 2019, conocido como el "Reglamento de Estándares de Calidad de Agua de Puerto Rico".

12. Relacionado al nivel de sonido máximo permitido, cumplir con el Reglamento Número 8019 del 9 de mayo de 2011, conocido como el Reglamento para el Control de la Contaminación por Ruido.

13. Cumplir con el Reglamento Núm. 8786 del 9 de agosto de 2016, conocido como el "Reglamento para el Control y la Prevención de la Contaminación Lumínica" en lo relacionado a fuentes emisoras de iluminación exterior y demás requisitos aplicables al proyecto que disponga dicho reglamento.

14. Deberá paralizar todo tipo de actividad de excavación, movimiento y remoción de corteza terrestre, y notificar en un plazo de veinticuatro (24) horas al Programa de Arqueología y Etnohistoria, en caso de que, durante el desarrollo del proyecto, se descubra o impacte algún depósito, elemento, estructura o vestigio de naturaleza arqueológica.

15. Cumplir con los requerimientos de las agencias concernientes y con las recomendaciones (2023-520775-REA-014412) emitidas para el proyecto.

16. Las recomendaciones y requisitos presentados en esta comunicación no eximen de cualquier otro requerimiento o permiso de esta Oficina u otras agencias concernidas, que sean aplicables a la acción propuesta.





Determinación de Cumplimiento Ambiental para Evaluación Ambiental

Firma / Sellos

CERTIFICO: Que he notificado copia fiel y exacta de la presente determinación con sus anejos, bajo mi firma, a la Agencia Proponente.

Fecha de Expedición:

07/JUN/2024





Recomendación Ambiental

Convergent Ponce Energy Storage 1, LLC.

Fecha de Expedición:

06/MAR/2024

Datos de localización

De acuerdo a la información suministrada se propone una actividad Privado en el Distrito de Clasificación identificado a continuación:

Dirección Física

CARR. PR#511, KM. 1.3, BARRIO REAL, , P.R. 00780
Ponce, Puerto Rico, 00780

Número(s) de Catastro

342-092-117-12

Calificación

Distrito(s) de Calificación:

AP.4

Distrito en el Mapa de Inundabilidad:

X

Tipo de Suelo:

Jg

Datos de permiso

Dueño

Convergent Ponce Energy Storage 1, LLC.

Cabida (Área Total Según Escritura)

14563.29 MC

Servidumbres Existentes

Electricidad (AAE),

Comentarios de las Divisiones al Permiso

Infraestructura

La Autoridad de Acueductos y Alcantarillados (AAA) evaluó el documento sometido en cumplimiento de su deber como agencia evaluadora, específicamente los aspectos ambientales exclusivos a nuestra jurisdicción y peritaje. Según los documentos sometidos, el proyecto consiste en el desarrollo de un sistema de baterías para el almacenamiento de energía eléctrica de 25 MW, incluyendo la construcción de una estructura para operación y mantenimiento de aproximadamente 2,400 pies cuadrados, una subestación, y una interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica. Proyecto localizado en la PR-511 Km. 1.3 del Barrio Real en el Municipio de Ponce. De manera preliminar, no se identifica que dicha propuesta según descrita en documentos presente un impacto en términos ambientales para la Autoridad de Acueductos y Alcantarillados, no obstante, se deberá consultar al DRNA para el cumplimiento con las leyes y reglamentos aplicables. Destacamos del proyecto requerir servicio de agua potable y/o alcantarillado sanitario, o identificación de utilidades; el Proponente deberá someter una Solicitud de Recomendación de infraestructura (SRI) ante la Oficina de Gerencia de Permisos (OGPe). En la evaluación se determinará la disponibilidad de los servicios de agua y alcantarillado sanitario que puedan servir al mismo, requisitos y/o condiciones de endoso para conectar el proyecto. Dichas condiciones pueden incluir, pero no se limitan a: • Obras de Aumento de capacidad en el sistema potable como de alcantarillado sanitario. • Relocalización de utilidades de la AAA e identificación de servidumbres. • Construcción de obras extramuros. Esta comunicación no implica una autorización para que se conecten los servicios de agua y alcantarillado. El proponente será responsable de identificar y de reparar a su costo cualquier daño que pueda causar a las utilidades existentes de la Autoridad.

ACT contesta REA - El Programa de Construcción y Mejoras Permanentes vigente de esta Autoridad no incluye proyectos programados que pudieran verse afectados por la acción propuesta. En cuanto al aspecto ambiental no tenemos





Recomendación Ambiental

comentarios.

LUMA Servco LLC (LUMA), como operadora y representante de la Autoridad de Energía Eléctrica (AEE) contesta la REA - Desde el punto de vista ambiental LUMA no tiene comentarios al proyecto propuesto. No obstante, el proyecto según presentado requiere de una evaluación eléctrica para determinar los impactos que puede representar el mismo a la infraestructura de la AEE operada por LUMA. De acuerdo con Reglamento para el Proceso de Evaluación Ambiental, Reglamento Núm. 8858 de 23 de noviembre de 2016 vigente, la parte proponente deberá discutir el impacto ambiental de cada actividad propuesta que afecte nuestra infraestructura y determinar la disponibilidad de esta antes de la presentación de un documento ambiental. A esos efectos, deberá incorporar en el Documento Ambiental correspondiente las recomendaciones de la evaluación eléctrica realizada por la LUMA, que se obtenga mediante la Solicitud de Recomendación de Infraestructura (SRI) de la Oficina de Gerencia de Permisos. Le recordamos que la evaluación eléctrica caduca al año de realizada. De no comenzar los trabajos en ese periodo, se deberá solicitar una nueva evaluación eléctrica. Este comunicado no constituirá un endoso a la referida acción. Una vez cumplan con las condiciones que se establezcan en la correspondiente evaluación eléctrica, la acción propuesta se considerará endosada.

NETPR- 2023-524361-REA-300031 Requisitos de Estricto Cumplimiento - El Negociado de Telecomunicaciones (NET) tiene los siguientes comentarios: El proyecto según presentado requiere de una evaluación técnica. Respecto a las recomendaciones para la instalación de infraestructura, la Parte Proponente continuara el trámite a través de la Oficina de Gerencias de Permisos (OGPe). A tales efectos autenticará con su firma digital y sello el formulario de Solicitud NETPR - F101. Es un deber esencial que la Parte Proponente certifique por ese medio, cualquier especificación, con especial atención a la infraestructura de telecomunicaciones y los puntos de conexión. 1. El dueño a través del proyectista solicitara al NET un punto de conexión a la infraestructura de telecomunicaciones. 2. Mas adelante presentara para recomendaciones y posterior autorización, un Plano de Infraestructura Soterrada de Telecomunicaciones donde certifique los requeridos detalles mínimos de construcción. Previo al otorgamiento del Permiso de Construcción, presentara a la consideración del NET un Plano de Infraestructura de Telecomunicaciones para Aprobación Final. 1. En específico el dueño o su representante constituirán mediante Plano de Inscripción y Escritura la Servidumbre de Infraestructura Soterrada de Telecomunicaciones, en estricto cumplimiento con las disposiciones del Reglamento para Endosos de Planos de Infraestructura y Servidumbres para Facilidades de Telecomunicaciones y Televisión de la Junta Reglamentadora de Telecomunicaciones de Puerto Rico, Reglamento 7393, revisado". 2. Cuando la obra este parcial o totalmente construida, presentara una Solicitud de Inspección para la requerida Certificación de Obras Construidas (COC). La COC es un requisito mandatorio para solicitar el Permiso de Uso. En cuanto a etapas posteriores de permisos, de acuerdo con las instrucciones vertidas esta recomendación está condicionada al cumplimiento específico de notificación a la Sección de Infraestructura del NET. Toda propuesta que incluya cambios que afecten nuestra infraestructura se diseñara de conformidad con las normas aplicables tal como surge del descrito Reglamento 7393, revisado". La parte proponente representara la infraestructura proyectada y determinara su viabilidad. A esos efectos, deberá incorporar en los correspondientes documentos de construcción las recomendaciones de la evaluación realizada por el NET que se obtengan prospectivamente mediante la Solicitud de Recomendación de Infraestructura (SRI) de la Oficina de Gerencia de Permisos. En las referidas etapas la Parte Proponente solicitara nuevas recomendaciones de infraestructura de telecomunicaciones. En tal eventualidad se radicarán planos certificados con el propuesto punto de conexión y los detalles de la infraestructura de telecomunicaciones. De ser necesaria una Relocalización de Planta, se exige el estricto cumplimiento con la sección 3.09 del Reglamento 7393, revisado.

Recomendaciones sobre Uso

Departamento de Agricultura: Se incluyó carta al expediente digital con fecha 19 de enero de 2024. Favor de referirse a la comunicación para obtener los detalles.

Medioambiente





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Departamento de Recursos Naturales y Ambientales

El Departamento de Recursos Naturales y Ambientales (DRNA) a través de su Oficial de Permiso asignado a la Oficina de Gerencia de Permisos (OGPe) evaluó la solicitud de recomendación ambiental presentada. Se propone la construcción de una estructura de unos 2,400 pies cuadrados para operación y mantenimiento, una subestación, la instalación sobre cimientos de hormigón, de contenedores con baterías para el almacenamiento de 25 MW energía eléctrica, inversores y transformadores. También se instalarán postes en acero para las líneas de transmisión y líneas eléctricas. Además, se construirá un acceso y caminos internos y cinco (5) estacionamientos. El proyecto se interconectará con el Centro de Transmisión Juana Díaz vía una línea de sub-transmisión de 38 kV que discurrirá a lo largo del Camino Falso por unos 900 pies. El proyecto ocuparía un área de unas 4 cuerdas de un predio combinado de dos parcelas con cabida de 10.66 cuerdas. Luego de evaluar la solicitud presentada, se emiten los siguientes comentarios y requerimientos: • El predio se encuentra previamente impactado por actividades agrícolas. El predio propuesto para desarrollo ha sido calificado como Agrícola Productivo. Lo anterior implica que los comentarios del Departamento de Agricultura deben ser imprescindibles para cualquier determinación relacionada al proyecto. • Se deberá cumplir con el Reglamento sobre Normas de Diseño, Criterios y Mantenimiento para Sistemas de Alcantarillados Pluviales en Puerto Rico (Reglamento de Planificación Núm. 40 del 18 de abril de 2023). • Deberá cumplir con las disposiciones del Reglamento para el Control de Contaminación Atmosférica, el Reglamento para el Control de la Contaminación por Ruido, el Reglamento de Estándares de Calidad de Agua, el Reglamento para el Control y la Prevención de la Contaminación Lumínica y el Reglamento para el Manejo de Desperdicios Sólidos No Peligrosos, así como obtener los permisos correspondientes relacionados a dichos reglamentos y el Reglamento para el Trámite de Permisos Generales. • Deberá cumplir con las disposiciones de la Regla 3.4.1 (“Permiso Único Incidental Operacional”), la Sección 5.1.9.3 (“Manejo de Aguas Pluviales”), la Sección 5.1.9.4 (“Obras Pluviales”) y la Sección 9.13 (Hábitat) del Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios (Reglamento Núm. 9473, con vigencia del 16 de junio de 2023, adoptado por la Junta de Planificación mediante la Resolución JP-RP-41, del 16 de junio de 2023). • Implementar todo tipo de medidas disponibles (Plan CES, el “Storm Water Pollution Prevention Plan-SWPPP”, filtros, pacas de heno, etc.) para el control de sedimentación y escorrentías que puedan afectar los cuerpos de agua. Se deberán implantar las mejores prácticas posibles (BMPs, por sus siglas en inglés) a ser ejecutadas durante cada etapa del proyecto. Las BMPs son las técnicas (zonas de amortiguamiento, cortinas de retención de sedimento, estanques de detención, surcos, etc.), programación de actividades, prácticas prohibidas, y procedimientos de mantenimiento para prevenir o reducir las descargas de contaminantes a los cuerpos de agua cercanos que pudieran afectarse durante la construcción. Asimismo, se deberán tomar medidas para evitar que residuos de sustancias orgánicas e inorgánicas tales como: aceite: combustibles y otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a los cuerpos de agua o se infiltren en el terreno. • Según la página “Information for Planning and Consultation” (IPaC) del Servicio Federal de Pesca y Vida Silvestre (USFWS), el área que cubre este proyecto está situada dentro del alcance de la distribución geográfica de la boa de Puerto Rico (*Chilabothrus inornatus*), especie en peligro de extinción a nivel federal y estatal. Por lo que, de encontrarse individuos de dicha especie dentro de la propiedad los mismos no podrán ser perturbados y deberán ser removidos o reubicados por los biólogos del DRNA o los miembros del Cuerpo de Vigilantes de Recursos Naturales y Ambientales o por biólogos de vida silvestre bajo contrato con la parte proponente por servicios profesionales que cuenten con un permiso federal del Fish and Wildlife Service, y que el DRNA haya designado explícitamente como sus agentes para ese propósito. El proceso para la autorización del biólogo se rige por el Reglamento 6766 de 11 de febrero de 2004 (Reglamento para Regir la Conservación y Manejo de las Especies Vulnerables y en Peligro de Extinción en del Estado Libre Asociado de Puerto Rico). Este proceso se lleva a cabo en el DRNA y no en la Oficina de Gerencia de Permisos o a través de ésta. La reubicación de los individuos encontrados deberá producirse no más tarde de las 24 horas (o el próximo día laborable) a partir del momento en el que se informa el hallazgo y, hasta donde sea práctico y viable, los mismos serán reubicados en terrenos cercanos a la propiedad. • Se deberá establecer un programa de reforestación utilizando especies nativas que además de ayudar a minimizar la erosión beneficien la vida silvestre. Esta medida es cónsona con la Ley para Fomentar la Siembra de Árboles Cuyas Frutas y/o Semillas Provean Alimento a Especies de Aves Silvestres de Puerto Rico (Ley Núm. 97 de 24 de junio de 1998), la cual establece lo siguiente: “En todo proyecto de reforestación en que se utilicen fondos públicos o privados, o en una combinación de estos, un 15% en las áreas rurales y un 10% en las áreas





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urbanas del total de árboles a ser sembrados, serán de especies cuyas frutas y/o semillas sirvan de alimento a las aves silvestres que residan temporal o permanentemente en ésta". • De descubrirse en el predio objeto de desarrollo cuerpo de agua superficial o subterráneo, sea perenne o intermitente, deberá informarlo inmediatamente al DRNA y demás agencias concernidas. No informar hallazgos de este tipo, así como las medidas de mitigación que se implantarán para proteger estos recursos naturales conllevará una revocación automática de la presente comunicación de no-objeción y podrá ser base para acciones legales por parte de DRNA en los foros disponibles.

Estos comentarios son solamente aplicables a la situación de hechos y los datos según presentados y evaluados en el caso y la Secretaria se reserva el derecho de reevaluar, 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 cuando surja nueva información oficial específica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente, o cuando los mismos se emitieron bajo premisas falsas o fraudulentas.

Permisos Operacionales

La Secretaría Auxiliar de Permisos, Endosos y Servicios Especializados del DRNA ha recibido la solicitud de Recomendación Ambiental (REA) referida electrónicamente por la Oficina de Gerencia de Permisos (OGPe) relacionada con el proyecto de referencia para la correspondiente evaluación y comentarios. Convergent Ponce Energy Storage 1 LLC, propone desarrollar el proyecto Ponce Battery Energy Storage System (Ponce BESS) en un predio localizado en la carretera PR-511 Interior, Barrio Coto Laurel en el municipio de Ponce. El predio propuesto para el proyecto Ponce BESS consiste en un predio combinado de unas 10.66 cuerdas (41,905.59 m²) que consiste en dos (2) parcelas identificadas como Parcela A la cual tiene una cabida de unas 5.10 cuerdas (20,050.03 m²) y la cabida de la parcela B es de unas 5.56 cuerdas (21,855.56 m²). El proyecto propuesto utilizaría unas 4 cuerdas (15,721.58 m²) para el desarrollo del Ponce BESS. El proyecto consiste en la construcción de una estructura de unos 2,400 pies cuadrados para operación y mantenimiento, una subestación, la instalación, sobre cimientos de hormigón, de contenedores con baterías para el almacenamiento de 25 MW energía eléctrica, inversores y transformadores ocupando un área de unas 4 cuerdas o unos 15,721.58 m². También en se instalarán postes en acero para las líneas de transmisión y líneas eléctricas. Además, se construirá un acceso y caminos internos y cinco (5) estacionamientos. El proyecto se interconectará a través de una conexión de 38 kV con el Centro de Transmisión Juana Diaz, en la municipalidad de Ponce vía una línea de subtransmisión de 38 kV que discurrirá a lo largo del Camino Falso por unos 900 pies. Se hará uso de la conexión al servicio de telecomunicaciones, agua y electricidad estatal y previo a la construcción estará solicitando puntos de conexión, según las recomendaciones a las entidades concernidas. Se estima que el corte y relleno sea balanceado y no se anticipan demoliciones de estructuras. El DRNA emite sus comentarios al proyecto propuesto basados en la aplicación de leyes y reglamentos vigentes promulgados por la extinta ADS/JCA*(ver nota al final del documento) y entre otras regulaciones relacionadas con el manejo y disposición de los desperdicios sólidos y los materiales reciclables para las diferentes fases del proyecto, entre otras regulaciones. Las recomendaciones son de aplicabilidad al proyecto propuesto de este obtener la autorización y permisos requeridos para su ubicación, desarrollo, construcción u operación. A. Deberán cumplir con los requerimientos, comentarios y recomendaciones presentados por otras áreas del DRNA envueltas en la evaluación del proyecto propuesto. B. Tomando en consideración que el proyecto siempre y cuando haya obtenido y cumplido con las autorizaciones o permisos para su desarrollo de todas las áreas concernidas, se emiten las siguientes recomendaciones: 1. El proponente cumplirá con las regulaciones relacionadas con el manejo y disposición de los desperdicios sólidos y los materiales reciclables: a. Ley Núm. 70 - 1992, Ley para la Reducción y Reciclaje de los Desperdicios Sólidos, según enmendada, establece el desarrollo e implantación de estrategias económicamente viables y ambientalmente seguras que resulten en la disminución del volumen de desperdicios sólidos que requerirá disposición final. Como parte de estas estrategias, se considera necesario modificar las prácticas de manejo y disposición existentes para reducir la intensidad de uso de los Sistemas de Relleno Sanitario (SRS) del país. b. Reglamento para la Reducción, Reutilización y Reciclaje de Desperdicios Sólidos (Reglamento Núm. 6825 de 2004), según enmendado. (Reglamento 7940, Enmienda Reglamento Núm. 6825). Establecido a tenor con la Ley Número 70 - 1992. □ Desarrollar e implantar reglas y requisitos para establecer estrategias que disminuyan el volumen, cantidad y peligrosidad de los residuos sólidos





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que requerirán disposición final y propiciar su viabilidad económica y ambiental. 2. Cumplir con los requerimientos establecidos bajo el Reglamento Conjunto para la evaluación y expedición de permisos relacionados al desarrollo, uso de terrenos y operación de negocios (Reglamento Conjunto) Todo desarrollo propuesto deberá cumplir con las disposiciones bajo las Secciones 3.2.1.1 y 3.2.1.2, Regla 3.2.1 Permisos de Construcción, Capítulo 3.2 Edificación y Conservación de energía; Capítulo 3.4 Permisos de Medioambiente, Regla 3.4.1 Permiso único incidental operacional; Secciones 3.4.1.2 y 3.4.1.3, según aplique. Capítulo 3.6 Permisos Generales del Tomo III Permisos para el desarrollo y negocios, según aplique. Cumplir con las disposiciones de la Sección 5.1.9.3 ("Manejo de Aguas Pluviales") y la Sección 5.1.9.4 ("Obras Pluviales") Tomo V Urbanizaciones, lotificaciones y residenciales de interés social, según aplique. Todo desarrollo propuesto deberá cumplir con lo dispuesto bajo la Sección 9.9.3.3 Recuperación de materiales reciclables en proyectos comerciales, industriales, institucionales, turísticos y recreativos del Capítulo 9.9 Desperdicios Sólidos, Tomo IX Infraestructura y Ambiente, según aplique. 3. Toda obra o desarrollo propuesto que realice alguna de las disposiciones incluidas en el Capítulo 3.2 Edificación y Conservación de energía Regla 3.2.1 Permisos de construcción Sección 3.2.1.1 Disposiciones generales, deberá radicar en el DRNA el Plan de Reciclaje fase de construcción para su correspondiente evaluación. Este deberá cumplir con lo siguiente (según aplique): a. Para los proyectos en los cuales no se emplee más de 10 personas, el desarrollador, proponente o contratista solicitará una Exención para la radicación del Formulario del Plan de Reciclaje para la fase de construcción. La solicitud para la exención del Plan de Reciclaje puede radicarla a través de la página del DRNA en Formularios en línea. De tener problemas puede radicarla a través de la dirección construccion@drna.pr.gov b. Para los proyectos que empleen más de 10 personas deberá radicar el Formulario del Plan de Reciclaje para la fase de Construcción, junto a un Memorial Explicativo. c. En caso de demoliciones, deberán radicar el Formulario del Plan de Reciclaje e indicar la cantidad de escombros de construcción a generarse en el proyecto que incluya alternativas para el manejo (reciclaje, reúso) y disposición. d. Tanto el Formulario del Plan de Reciclaje para la fase de construcción como de demolición puede radicarlo a través de la dirección electrónica construccion@drna.pr.gov 4. Todo desarrollo propuesto deberá promover la recuperación de materiales reciclables y el manejo y disposición tanto de los reciclables como de los desperdicios sólidos sea el adecuado, según dispuesto en cumplimiento con la reglamentación vigente para el manejo y disposición de los desperdicios sólidos no peligrosos en PR. Designar un área para la recuperación de materiales reciclables durante la construcción. Indicar la entidad responsable (municipio o compañía privada) del recogido y disposición de los desperdicios sólidos y los materiales reciclables. 5. Todo proceso de almacenaje, manejo y disposición de los desperdicios sólidos no peligrosos a ser generados durante las diferentes fases del proyecto propuesto, serán realizados en conformidad con lo estipulado bajo el Reglamento para el manejo de desperdicios no peligrosos, Reglamento Núm. 5717-1997. 6. Mantener los camiones de carga que se utilicen para transportar escombros y/o materiales de construcción cubiertos con toldos mientras estén en movimiento, para evitar la generación de polvo fugitivo. 7. Los camiones de acarreo de desperdicios deberán contar con el Permiso para Operar Servicios de Recolección o Transportación de Desperdicios Sólidos No Peligrosos (Permiso DS-1) emitido por el DRNA, para transportarlos hasta una instalación de disposición final o de reciclaje. 8. Deberán tomar las medidas necesarias para controlar el área durante la construcción para evitar exponer a los vehículos a recoger lodo, polvo, sustancias pegajosas o material viscoso en las ruedas u otras partes del vehículo, los cuales a su vez puedan ser depositados en las calles u otro sitio público y así mantener las vías públicas y alrededores del proyecto libres de acumulación de desechos de construcción. 9. Tomar las medidas necesarias para evitar que residuos de sustancias orgánicas e inorgánicas como aceites, combustibles u otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a cualquier cuerpo de agua o sistema pluvial del área. 10. Se tomará en consideración todo lo concerniente al manejo de aguas pluviales y control de escorrentías del predio. Tomar las medidas necesarias para el control de erosión y prevención de la sedimentación durante la realización de las obras. 11. Todos los materiales excedentes y escombros de construcción resultantes deberán haberse removido completamente del lugar, una vez completadas las obras. Se deberá disponer de estos de manera adecuada. 12. En relación con el uso de equipos que puedan ser fuentes de emisión atmosféricas, deberán obtener del Área de Calidad de Aire del DRNA los permisos correspondientes conforme al Reglamento Número 5300 del 28 de agosto de 1995 conocido como el Reglamento para el Control de la Contaminación Atmosférica. 13. Considerar técnicas de prevención de contaminación: a. Utilizar practicas adecuadas de mantenimiento del área b. Utilizar productos sin materiales tóxicos. c. Emplear materiales reusables o reciclables. d. Mantener los contaminantes segregados. e. Conservar el agua y los recursos energéticos. f. Rotular recipientes y contenedores, apropiadamente, para lo que estén designados. 14. En lo relacionado al nivel de sonido máximo permitido, cumplir con el Reglamento Número 8019 del 9 de mayo de 2011,





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conocido como el Reglamento para el Control de la Contaminación por Ruido. 15. Cumplir con el Reglamento Núm. 8786 del 9 de agosto de 2016, conocido como el “Reglamento para el Control y la Prevención de la Contaminación Lumínica” en lo relacionado a fuentes emisoras de iluminación exterior y demás requisitos aplicables al proyecto que disponga dicho reglamento. 16. Si el desarrollo requiere la construcción de sistemas de alcantarillados pluviales deberá cumplir con las reglamentaciones del Reglamento de Planificación Núm. 40 – Normas de Diseño, Criterios de Operación y Mantenimiento para Sistemas de Alcantarillados Pluviales en Puerto Rico vigencia 2023 de la Junta de Planificación. 17. En relación a la construcción de sistema para la disposición de las aguas usadas a ser generadas de no poder conectarse a AAA, recomendamos considerar los requerimientos establecidos bajo el Reglamento Núm. 3029 del 14 de septiembre de 1983, conocido como el “Reglamento para el Control de la Inyección Subterránea” y el Reglamento Núm. 4209 del 4 de mayo de 1990, conocido como el “Reglamento para la Certificación de Planos y Documentos”, para el cumplimiento de este según lo establece el reglamento y que el sistema cuente con los correspondientes permisos de construcción y operación. 18. El proponente/desarrollador/contratista del proyecto será responsable de cumplimentar las Leyes y Reglamentos antes mencionadas. Cumplirá con los permisos requeridos bajo las leyes y reglamentos vigentes. Además, de la documentación requerida por las agencias concernidas (En particular, con los requerimientos y recomendaciones de otras Áreas o Divisiones del DRNA) 19. La REA se somete ante la OGPe según lo dispuesto en la Regla 116 del Reglamento para el Proceso de Evaluación Ambiental (RPEA), como parte del procedimiento requerido para la acción propuesta y la misma es circulada a las agencias con inherencia que la OGPe estime pertinente. Según dicho Reglamento, el documento ambiental que finalmente se someta ante la OGPe, deberá cumplir con la Regla 118 en cuanto a formato y con la Regla 120 en cuanto a contenido del RPEA. Las recomendaciones emitidas aplican a los hechos presentados y evaluados al momento. El DRNA se reserva el derecho de reevaluar y modificar los mismos en el caso de surgir información oficial que identifique que las condiciones han cambiado, o cuando los comentarios hayan sido emitidos bajo premisas falsas. Además, el DRNA tiene la facultad de solicitar cualquier información adicional que entienda pertinente y que, de conformidad con las leyes y reglamentaciones vigentes, garantice el interés público y la protección del ambiente.

*Nota : “De acuerdo con el Plan de Reorganización del Departamento de Recursos Naturales y Ambientales de 2018, Ley 171 del 2 de agosto de 2018, Sección 92 – Cláusula de sustitución – Cualquier referencia a la Autoridad de Desperdicios Sólidos, contenida en cualquier ley, reglamento o documento oficial del Gobierno de Puerto Rico se entenderá enmendada a los efectos de referirse al Departamento de Recursos Naturales y Ambientales que se entenderá como su sucesor para todos los fines legales correspondientes.”

Salud y Seguridad

N/A

Arqueología y Conservación Histórica

COMENTARIO FINAL DE LOS PROGRAMAS DE PATRIMONIO HISTÓRICO EDIFICADO Y ARQUEOLOGÍA Y ETNOHISTORIA DEL ICP A CASO NÚM: 2023-524361-REA-300031 -- PROYECTO: CONVERGENT PONCE ENERGY STORAGE 1, LLC. -- I. BASE LEGAL: Se emite el siguiente comentario en base a la Ley 374 del 14 de marzo de 1949, según enmendada, Ley de Zonas Antiguas o Históricas y Zonas de Interés Turístico, Ley 3 del 2 de marzo de 1951, Ley de Edificios y otras Estructuras Históricas y la Ley 89 del 21 de junio de 1955, según enmendada, conocida como Ley Orgánica del Instituto de Cultura Puertorriqueña y la Ley 161 del 1 de diciembre de 2009, conocida como Ley para la Reforma del Proceso de Permisos de Puerto Rico. Estas leyes le confieren jurisdicción sobre los siguientes asuntos: 1. Edificios, lugares y zonas incluidas en el Registro de Sitios y Zonas Históricas de Puerto Rico de la Junta de Planificación (REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS); 2. Edificios, lugares y zonas declaradas históricas a través de legislación (o de resolución de la JUNTA DE DIRECTORES DEL ICP); 3. Plazas de recreo y edificios circundantes (REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS); 4. Propiedades zonificadas “P” construidas previo a 1960 (RESOLUCIÓN JPE-25 Y RESOLUCIÓN JPE-047); 5. Propiedades zonificadas “CRH”, “SH” o “R-ZH”- Según





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REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS; 6. Propiedades elegibles a sitios históricos; propiedades de valor histórico que satisfacen los criterios de elegibilidad como sitios históricos para ser designada como tal individualmente (LEY NÚM. 89 DE 1955; REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS); II. PROGRAMA DE PATRIMONIO HISTORICO EDIFICADO (PPHE): ICP-PPHE: No OBJECCIÓN--- 2023-524361-REA-300031; CONVERGENT PONCE ENERGY STORAGE 1, LLC.; Catastro: 342-092-117-12; De acuerdo a nuestros expedientes y la información provista la propiedad: 1. Se proponen obras de construcción para el desarrollo de un sistema de baterías para el almacenamiento de energía eléctrica, que incluye una interconexión con el sistema eléctrico de la Autoridad de Energía Eléctrica, la construcción de una estructura para operación y mantenimiento de aproximadamente 2,400 pies cuadrados, y una subestación eléctrica. 2. La propiedad NO es al momento Sitio Histórico designado, ni es parte de una Zona Histórica, según estos conceptos están definidos por el tomo XII (12), parte III, definiciones S-67, Z-12[=13] y Z-13[=14], y elaborados en el tomo X (10), del Reglamento de Emergencia, Reglamento 41 de la Junta de Planificación con vigencia del 16 de junio de 2023. 3. No es un Monumento Histórico declarado según este concepto está definido por el Tomo XII, Glosario de la Junta de Planificación, parte III, definición M-55 del Reglamento de Emergencia, Reglamento 41 de la Junta de Planificación con vigencia del 16 de junio de 2023. 4. No se localiza en centro fundacional, entiéndase plaza de recreo y bloques circundantes. 5. La propiedad NO presenta componentes visibles sobre la tierra con valor histórico evidente. 6. El proyecto propuesto NO implica impacto adverso a recursos culturales conocidos pertenecientes al patrimonio histórico construido. ---En este marco de referencia, el PPHE emite su NO OBJECCIÓN al proyecto. --- Este comentario, no incluye los elementos a ser evaluados por el Programa de Arqueología y Etnohistoria del ICP. La Ley 161-2009, según enmendada, Artículo 19.6, enmienda las Secciones 2 y 3 de la Ley Núm. 112 de 20 de julio de 1988, según enmendada, conocida como "Ley de Protección del Patrimonio Arqueológico Terrestre de Puerto Rico", a los fines de transferir al Instituto de Cultura Puertorriqueña toda facultad, deber u obligación referente a la evaluación para la otorgación o denegación de determinaciones finales o permisos, esto en coordinación con la Oficina de Gerencia de Permisos. Este documento tiene vigencia de un año a partir de su expedición. III. PROGRAMA DE ARQUEOLOGIA Y ETNOHISTORIA (PAE). Base Legal: La Ley 161-2009, según enmendada, Artículo 19.6, enmienda las Secciones 2 y 3 de la Ley Núm. 112 de 20 de julio de 1988, según enmendada, conocida como "Ley de Protección del Patrimonio Arqueológico Terrestre de Puerto Rico", a los fines de transferir al Instituto de Cultura Puertorriqueña toda facultad, deber u obligación referente a la evaluación para la otorgación o denegación de determinaciones finales o permisos, esto en coordinación con la Oficina de Gerencia de Permisos. El Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operaciones de Negocios (RC-2020); registrado en el Departamento de Estado de Puerto Rico bajo el Número 9233 con vigencia de 2 de enero de 2021, establece, entre otros, lo siguiente: a. Regla 2.1.8, Sección 2.1.8.7, Inciso "b": Todo proyecto público o privado que conlleve movimiento de terreno, excavación, extracción de corteza terrestre o construcción, reconstrucciones o canalizaciones deberá solicitar a la División o Unidad de Evaluación Ambiental (DECA) la recomendación del ICP sobre Arqueología y Conservación Histórica, ya sea a través de la OGPe, los Municipios Autónomos con Jerarquía 1 a la III o el Profesional Autorizado. b. CAPÍTULO 10.2, Sección 10.2.1.2 se requerirá la recomendación del ICP en todos los Permisos relacionados con construcción, reconstrucción, trabajos de excavación, extracción o movimiento de tierras en lugar alguno del que haya documentación previa o indicios fidedignos de presencia de material arqueológico. Incluye los centros fundacionales de los municipios, entiéndase, plaza de recreo y bloques circundantes, conforme a la Ley 89-1955, supra, Sección 4. —Propósitos, Funciones y Poderes del Instituto. (18 L.P.R.A. sec. 1198) y la Ley Número 112 del 20 de julio de 1988, conocida como la "Ley de Protección del Patrimonio Arqueológico Terrestre", según enmendada. IV. EVALUACIÓN PROGRAMA DE ARQUEOLOGIA Y ETNOHISTORIA: ICP-PAE: SOLICITUD DE EVALUACIÓN ARQUEOLÓGICA FASE IA-IB. El Programa de Arqueología y Etnohistoria (PAE) del Instituto de Cultura Puertorriqueña (ICP) ha recibido y evaluado los documentos relacionados al proyecto de referencia, recibidos a través de la Oficina de Gerencia de Permisos (OGPe). Como resultado de este proceso, hemos llegado a la conclusión de que existen probabilidades de que las actividades de desarrollo que contempla este proyecto pudieran afectar recursos de naturaleza arqueológica. Para corroborar dicha información, el proponente deberá someter, para nuestra evaluación y determinación, los resultados de una Evaluación Arqueológica Fase IA-IB conforme los Artículos 6 y 7 del Reglamento para la Radicación y Evaluación Arqueológica de Proyectos de Construcción y Desarrollo, Reglamento Núm. 8932, de 2017. Dicho informe arqueológica deberá ser dirigido al Programa de Arqueología y Etnohistoria (PAE),





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incluir en la portada el número de ICP-PAE, incluir la carta de solicitud de estudio y radicarlo en original debidamente encuadernado y copia digital (CD) en formato PDF legible en el PAE en el Viejo San Juan. Para el pago de cuota de evaluación del informe, o cualquier duda sobre el procedimiento de pago, puede comunicarse con el señor Nathanael Aulet Rentas de la Oficina de Finanzas del ICP (naulet@icp.pr.gov). Recuerde acompañar los documentos a entregar con una hoja de trámite que indique el nombre del documento que va a entregar, hoja de servicios arqueológicos y el pago de cuota de radicación. No deberá llevarse a cabo ningún tipo de movimiento de terreno hasta concluir los estudios arqueológicos necesarios y contar con la autorización final de esta oficina. Se le apercibe que el incumplimiento con estos requerimientos podrá ser objeto de sanciones administrativas según lo establecido en la Ley 89 y en la Ley 112.

División de Evaluación de Cumplimiento Ambiental

En el Documento de Evaluación Ambiental (DEA) que se someta se deberá atender los comentarios y requerimientos que hayan emitido las agencias comentadoras. La DEA deberá ser tramitada a través del Single Business Portal (SBP).

Se incluyen los comentarios del Departamento de Recursos Naturales y Ambientales (JCA y ADS) bajo la División de Medioambiente.

Condiciones Generales

Esta recomendación es solamente aplicable a la situación de hechos y los datos según presentados y evaluados en el caso. La OGPe se reserva el derecho de reevaluar, variar o modificar el mismo en cualquier momento anterior a la emisión del permiso o requerir la acción administrativa correspondiente por parte de la agencia solicitante o proponente cuando surja nueva información oficial específica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente, o cuando la recomendación original se emitió bajo premisas falsas o fraudulentas.

Habido recibido los comentarios de las agencias gubernamentales concernidas. Esta información será utilizada para la presentación del Documento Ambiental correspondiente a ser evaluado por la División de Evaluación de Cumplimiento Ambiental.

Vigencia

Las vigencias de las diferentes agencias del proceso de recomendación serán los establecidos en las comunicaciones que en estas emitan conforme a sus reglamentos. Esta recomendación ambiental tendrá una vigencia de trescientos sesenta y cinco (365) días a partir de su expedición.

Condiciones Especiales

La Certificación de Hábitat fue evaluada por el DRNA, nota del 2/5/2024.





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Firma / Sellos

Fecha de Expedición:

06/MAR/2024





GOBIERNO DE PUERTO RICO
INSTITUTO DE CULTURA PUERTORRIQUEÑA
Programa de Arqueología y Etnohistoria
Directora | Arql. Anabel Arana Lanzas

4 de marzo de 2024

Solicitud de Evaluación Arqueológica

Lcdo. Félix E. Rivera Torres
Secretario Auxiliar - Oficina de Gerencia de Permisos
Departamento de Desarrollo Económico y Comercio
PO Box 41118
San Juan, Puerto Rico 00940

Proyecto: Convergent Ponce Energy Storage 1, LLC.
PR-511, Km. 1.3, Barrio Real, Ponce
OGPe: 2023-524361-REA-300031
ICP-PAE: PO-24-093

Estimado licenciado Rivera Torres:

El Programa de Arqueología y Etnohistoria (PAE) del Instituto de Cultura Puertorriqueña (ICP) ha recibido y evaluado los documentos relacionados al proyecto de referencia, recibidos a través de la Oficina de Gerencia de Permisos (OGPe). Como resultado de este proceso, hemos llegado a la conclusión de que existen probabilidades de que las actividades de desarrollo que contempla este proyecto pudieran afectar recursos de naturaleza arqueológica.

Para corroborar dicha información, el proponente deberá someter, para nuestra evaluación y determinación, los resultados de una **Evaluación Arqueológica Fase IA-IB** conforme los Artículos 6 y 7 del *Reglamento para la Radicación y Evaluación Arqueológica de Proyectos de Construcción y Desarrollo, Reglamento Núm. 8932, de 2017*.

Dicho informe arqueológica deberá ser dirigido al Programa de Arqueología y Etnohistoria (PAE), incluir en la portada el número de ICP-PAE, incluir la carta de solicitud de estudio y radicarlo en original debidamente encuadernado y copia digital (CD) en formato PDF legible en el PAE en el Viejo San Juan. Para el pago de cuota de evaluación del informe, o cualquier duda sobre el procedimiento de pago, puede comunicarse con el señor Nathanael Aulet Rentas de la Oficina de Finanzas del ICP (naulet@icp.pr.gov). Recuerde acompañar los documentos a entregar con una hoja de trámite que indique el nombre del documento que va a entregar, hoja de servicios arqueológicos y el pago de cuota de radicación.

No deberá llevarse a cabo ningún tipo de movimiento de terreno hasta concluir los estudios arqueológicos necesarios y contar con la autorización final de esta oficina. Se le apercibe que el incumplimiento con estos requerimientos podrá ser objeto de sanciones administrativas según lo establecido en la Ley 89 y en la Ley 112.

Cordialmente,

Arql. Anabel Arana Lanzas
Directora
Programa de Arqueología y Etnohistoria

LIPR



Recomendación Ambiental

Convergent Coamo Energy Storage 1, LLC.

Fecha de Expedición:

01/FEB/2024

Datos de localización

De acuerdo a la información suministrada se propone una actividad Privado en el Distrito de Clasificación identificado a continuación:

Dirección Física

BO. SAN ILDEFONSO 1,
, P.R. 00769
Coamo, Puerto Rico, 00769

Número(s) de Catastro

368-000-005-13

Calificación

Distrito(s) de Calificación:

UR

Distrito en el Mapa de Inundabilidad:

X

Tipo de Suelo:

CoD (63.8%), LnB (20.2%), LnC2 (16.0%)

Comentarios de las Divisiones al Permiso

Infraestructura

La Autoridad de Acueductos y Alcantarillados (AAA) evaluó el documento sometido en cumplimiento de su deber como agencia evaluadora, específicamente los aspectos ambientales exclusivos a nuestra jurisdicción y peritaje.

Según los documentos sometidos, se solicita autorización para Sistema privado de generación eléctrica fotovoltaica de 100 megavatios (MW) para suplir la red de la Autoridad de Energía Eléctrica (AEE) por 25 años, que consiste en una finca de generación de energía fotovoltaica, almacenaje de aproximadamente 55 MWhora en un sistema de baterías, otros aparatos relacionados, estructura tipo vagón para operación y mantenimiento, y una línea de transmisión de aproximadamente dos millas que llegará hasta el punto de interconexión con la red eléctrica de la AEE. Los predios para la generación son de aproximadamente 641 cuerdas (aproximadamente 630 acres), ubicados en los Barrios San Ildefonso y Los Llanos del Municipio Autónomo de Coamo. La línea de interconexión, de 115 kV, discurrirá por la servidumbre de la carretera PR-545 (1.7 millas, 2.7 km) y por servidumbres privadas (0.5 millas, 0.8 km) hasta alcanzar el patio de interruptores propuesto en el Barrio Jauca 2 del Municipio de Santa Isabel.

De manera preliminar, no se identifica que dicha propuesta según descrita en documentos presente un impacto en términos ambientales para la Autoridad de Acueductos y Alcantarillados, no obstante, se deberá consultar al DRNA para el cumplimiento con las leyes y reglamentos aplicables.

Destacamos del proyecto requerir servicio de agua potable y/o alcantarillado sanitario, o identificación de utilidades; el Proponente deberá someter una Solicitud de Recomendación de infraestructura (SRI) ante la Oficina de Gerencia de Permisos (OGPe).

En la evaluación se determinará la disponibilidad de los servicios de agua y alcantarillado sanitario que puedan servir al mismo, requisitos y/o condiciones de endoso para conectar el proyecto. Dichas condiciones pueden incluir, pero no se limitan a:





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- Obras de Aumento de capacidad en el sistema potable como de alcantarillado sanitario.
- Relocalización de utilidades de la AAA e identificación de servidumbres.
- Construcción de obras extramuros.

Esta comunicación no implica una autorización para que se conecten los servicios de agua y alcantarillado. El proponente será responsable de identificar y de reparar a su costo cualquier daño que pueda causar a las utilidades existentes de la Autoridad.

ACT contesta REA - El Programa de Construcción y Mejoras Permanentes vigente de esta Autoridad no incluye proyectos programados que pudieran verse afectados por la acción propuesta. En cuanto al aspecto ambiental no tenemos comentarios.

LUMA Servco LLC (LUMA), como operadora y representante de la Autoridad de Energía Eléctrica (AEE) contesta la REA - Desde el punto de vista ambiental LUMA no tiene comentarios al proyecto propuesto. No obstante, el proyecto según presentado requiere de una evaluación eléctrica para determinar los impactos que puede representar el mismo a la infraestructura de la AEE operada por LUMA. De acuerdo con Reglamento para el Proceso de Evaluación Ambiental, Reglamento Núm. 8858 de 23 de noviembre de 2016 vigente, la parte proponente deberá discutir el impacto ambiental de cada actividad propuesta que afecte nuestra infraestructura y determinar la disponibilidad de esta antes de la presentación de un documento ambiental. A esos efectos, deberá incorporar en el Documento Ambiental correspondiente las recomendaciones de la evaluación eléctrica realizada por la LUMA, que se obtenga mediante la Solicitud de Recomendación de Infraestructura (SRI) de la Oficina de Gerencia de Permisos. Le recordamos que la evaluación eléctrica caduca al año de realizada. De no comenzar los trabajos en ese periodo, se deberá solicitar una nueva evaluación eléctrica. Este comunicado no constituirá un endoso a la referida acción. Una vez cumplan con las condiciones que se establezcan en la correspondiente evaluación eléctrica, la acción propuesta se considerará endosada.

NETPR-2023-503177-REA-013365 Requisitos de Estricto Cumplimiento - El Negociado de Telecomunicaciones (NET) tiene los siguientes comentarios: El proyecto según presentado requiere de una evaluación técnica. Respecto a las recomendaciones para la instalación de infraestructura, la Parte Proponente continuara el trámite a través de la Oficina de Gerencias de Permisos (OGPe). A tales efectos autenticará con su firma digital y sello el formulario de Solicitud NETPR - F101. Es un deber esencial que la Parte Proponente certifique por ese medio, cualquier especificación, con especial atención a la infraestructura de telecomunicaciones y los puntos de conexión. 1. El dueño a través del proyectista solicitara al NET un punto de conexión a la infraestructura de telecomunicaciones. 2. Mas adelante presentara para recomendaciones y posterior autorización, un Plano de Infraestructura Soterrada de Telecomunicaciones donde certifique los requeridos detalles mínimos de construcción. Previo al otorgamiento del Permiso de Construcción, presentara a la consideración del NET un Plano de Infraestructura de Telecomunicaciones para Aprobación Final. 1. En específico el dueño o su representante constituirán mediante Plano de Inscripción y Escritura la Servidumbre de Infraestructura Soterrada de Telecomunicaciones, en estricto cumplimiento con las disposiciones del Reglamento para Endosos de Planos de Infraestructura y Servidumbres para Facilidades de Telecomunicaciones y Televisión de la Junta Reglamentadora de Telecomunicaciones de Puerto Rico, Reglamento 7393, revisado". 2. Cuando la obra este parcial o totalmente construida, presentara una Solicitud de Inspección para la requerida Certificación de Obras Construidas (COC). La COC es un requisito mandatorio para solicitar el Permiso de Uso. En cuanto a etapas posteriores de permisos, de acuerdo con las instrucciones vertidas esta recomendación está condicionada al cumplimiento específico de notificación a la Sección de Infraestructura del NET. Toda propuesta que incluya cambios que afecten nuestra infraestructura se diseñara de conformidad con las normas aplicables tal como surge del descrito Reglamento 7393, revisado". La parte proponente representara la infraestructura proyectada y determinara su viabilidad. A esos efectos, deberá incorporar en los correspondientes documentos de construcción las recomendaciones de la evaluación realizada por el NET que se obtengan prospectivamente mediante la Solicitud de Recomendación de Infraestructura (SRI) de la Oficina de Gerencia de Permisos. En las referidas etapas la Parte Proponente solicitara nuevas recomendaciones de infraestructura de





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telecomunicaciones. En tal eventualidad se radicarán planos certificados con el propuesto punto de conexión y los detalles de la infraestructura de telecomunicaciones. De ser necesaria una Relocalización de Planta, se exige el estricto cumplimiento con la sección 3.09 del Reglamento 7393, revisado. Estas instrucciones no constituyen una recomendación favorable a la referida acción, ni representa un relevo de cumplimiento respecto a todos los reglamentos aplicables. El NET ejercerá la autoridad delegada, evaluará cada fase inconclusa del proceso de permisos y cuando sea necesario solicitará otorgación de autorizaciones con la facultad disponible para notificar procedimientos administrativos.

Recomendaciones sobre Uso

Departamento de Agricultura: Se incluyó carta al expediente digital con fecha de 24 de enero de 2024. Favor de referirse a la comunicación para obtener los detalles.

Medioambiente

DRNA

El Departamento de Recursos Naturales y Ambientales (DRNA) a través de su Oficial de Permiso asignado a la Oficina de Gerencia de Permisos (OGPe) evaluó la solicitud de recomendación ambiental presentada. Se propone construir una facilidad fotovoltaica de 100 megavatios (MW) y almacenamiento de energía de aproximadamente 55 MWhora en un sistema de baterías, otros aparatos relacionados, estructura tipo vagón para operación y mantenimiento, y una línea de transmisión de aproximadamente dos millas que llegará hasta el punto de interconexión con la red eléctrica de la Autoridad de Energía Eléctrica. Los predios propuestos para la planta fotovoltaica, el sistema de baterías y el punto de interconexión incluyen 17 parcelas, con un área aproximada de 630 cuerdas. De la cabida total se prevé la utilización de aproximadamente 386 cuerdas para la instalación de los componentes del proyecto. El remanente de las áreas que no serán utilizadas permanecerá bajo las características naturales existentes. Además, un predio de aproximadamente 1.8 cuerdas se propone para el equipo de interconexión con la línea de transmisión de 115 kV de la AEE en el Barrio Jauca 2 del Municipio de Santa Isabel. Luego de evaluar la solicitud presentada, se emiten los siguientes comentarios y requerimientos: • Según el sistema de información del DRNA, el proyecto se encuentra dentro de la región de distribución de varias especies de vida silvestre catalogadas como Elementos Críticos, Vulnerables o en Peligro de extinción. Al sur del predio se ha identificado un Área con Prioridad de Conservación (APC) para el sapo concho (*Peltophryne lemur*), especie endémica y en peligro de extinción. Este APC se establece al amparo de la Ley Núm. 150 de 4 de agosto de 1988, conocida como Ley para crear el Programa de Patrimonio Natural de Puerto Rico. Durante la última década el DRNA realizó una reintroducción del sapo concho en un área protegida en Santa Isabel (Finca Gabia), colindante al Río Coamo. El lugar de reintroducción está ubicado aproximadamente a 3 kilómetros del predio propuesto para el parque fotovoltaico. Sin embargo, los cuerpos de agua existentes en el predio (Quebrada sin nombre y drenajes que tributan al Río Coamo), así como el propio Río Coamo colindante al predio, pueden servir de corredor para que la especie pueda desplazarse hasta el predio bajo evaluación. Por lo antes expuesto, la quebrada y los drenajes con vegetación ribereña que discurren por el predio no deben ser impactados. Estas áreas deben mantenerse expeditas garantizando la conservación de la vegetación ribereña y los bosques de galería de forma tal que se mantengan corredores hidrológicos con para la dispersión del sapo concho y evitar la erosión y sedimentación que afecte los cuerpos de agua. Según el plano esquemático hay varios drenajes sobre los cuales se proponen placas solares. En específico, en las parcelas 368-000-005-26 y 368-000-004-08. Esto debe ser corregido e identificar estas áreas libres de impacto y deforestación. Se deberá garantizar la conservación de la vegetación ribereña y bosques de galería existentes asociados a estos drenajes y la quebrada que discurre por el predio. Esto debe ser demostrado e identificado en el plano del proyecto, incluyendo zonas de amortiguamiento mínimas de 10 metros de vegetación inalterada a estos drenajes. Estas franjas de bosque ribereños son sistemas que albergan y mantienen la mayor diversidad de especies nativas leñosas y que servirán como corredores biológicos. • Otra especie reportada cercana al predio objeto de desarrollo es el guabairo (*Antrostomus noctitherus*). Según estudios recientes se ha documentado la presencia de esta especie aproximadamente a 1.5 kilómetros del predio bajo evaluación. Por lo que tampoco se puede descartar que la especie pueda estar utilizando el predio, particularmente como zona de alimentación y desplazamiento. Además, las áreas de lomas y pendientes empinadas donde existen cultivos





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pueden servir como área de anidaje para esta especie. A estos efectos, se deberá mantener de manera inalterada la topografía y vegetación de las siete zonas identificadas como High Slope Areas, además de la zona identificada como Protected Land Area en el plano del proyecto. • Entre las especies reportadas en el estudio de Flora y Fauna se incluye *Rocheortia acanthophora*, *Coccoloba sintenisii* y *Manilkara bidentata*, especies nativas catalogadas como Elementos Críticos. Otras especies poco comunes o raras que también se encuentran en el predio son *Hirtella triandra*, *Asio flammeus* y *Vitex divaricata*, lo que sugiere que el predio presenta mayor valor ecológico a pesar del uso agrícola que ha sido expuesto. La ocurrencia de estas especies contrasta con lo expresado en la sección de flora y fauna, la cual indica que el proyecto impactará terrenos de bajo valor para la vida silvestre. A pesar de que se reconoce que incluyen segmentos bajo reposo donde se ha desarrollado una colección de especies herbáceas que atraen vida silvestre. Es importante que se identifique sobre una imagen aérea la ubicación y coordenadas de las especies consideradas Elementos Críticos, incluyendo las señaladas como poco comunes. • Se deberá especificar en el documento ambiental, la cabida del área identificada en el plano del proyecto como Protected Land Area y describir el mecanismo a utilizar para garantizar dicha protección. • Debido a que por el predio discurre una quebrada, se deberá mantener un retiro de cinco (5) metros mínimos de ancho medidos desde donde termina el bosque ribereño asociado a la misma. Esta faja, deberá segregarse como lote independiente y dedicarse a uso público a favor del Municipio de Coamo conforme al Artículo 2 de la Ley Núm. 49 del 4 de enero de 2003, según enmendada por la Ley Núm. 55 de 22 de enero de 2004. Dicha faja debe estar ilustrada en el plano del proyecto. Asimismo, no se deberá impactar el cauce mayor de la quebrada. • A diferencia de lo indicado en el documento ambiental, el predio objeto de desarrollo colinda en algunas porciones con el Río Coamo. En específico en la parcela 369-000-001-22. No consta en nuestros expedientes que se haya certificado un deslinde del cauce legal de dicho Río y su faja verde para este predio. Se percibe que para todo proyecto propuesto cuyo predio discorra o colinde con un Río, se debe realizar en el DRNA una certificación de los límites del cauce legal del Río y de su faja verde mínima de 5 metros a dedicarse a uso público a favor del DRNA, en conformidad con la Ley Núm. 49 de 4 de enero de 2003, según enmendada. En este caso la faja verde debería ser de un mínimo de 10 metros. El proceso para certificar el límite del cauce legal del Río y su faja verde se realiza directamente en el DRNA y no en la Oficina de Gerencia de Permisos (OGPe) ni a través de ésta. A estos efectos, previo a cualquier permiso de la OGPe relacionado a este proyecto, se deberá presentar a la oficina de Secretaría del DRNA una solicitud de deslinde del cauce legal del Río y su faja verde. Se reitera que dicha faja debe ser dedicada a uso público a favor del DRNA mediante escritura. • Una vez certificado el deslinde del Río Coamo y su faja verde, se deberá presentar una copia certificada de la escritura de cesión y traspaso al DRNA del área correspondiente a la faja verde mínima de 10 metros adyacente al Cauce Legal del Río y radicar una copia de la minuta de asiento de la presentación de la escritura en el Registro de la Propiedad. Asimismo, se deberá presentar un borrador de las escrituras para destinar como servidumbre de conservación los terrenos al este del predio identificados para preservar en el plano del proyecto como mecanismo legal para garantizar su protección. A los fines de conocer el procedimiento a seguir para cumplir con las disposiciones del Reglamento Núm. 8816 de 19 de septiembre de 2016 (Reglamento para la Adquisición de Bienes Inmuebles y Derechos Reales del Departamento de Recursos Naturales y Ambientales), puede comunicarse con la División de Bienes Inmuebles al (787) 999-2200 Ext. 2505 o 2500. • El diseño final del proyecto y su huella de impacto dependerá del deslinde certificado del Río Coamo y su faja verde, la conservación de todos los drenajes que discurren por el predio con vegetación ribereña y la identificación de las fajas verdes y zonas requeridas para conservación. Lo anterior implica que previo a que se emita cualquier permiso relacionado al proyecto, la OGPe deberá cerciorarse que el plano final incluya dichas delimitaciones en cumplimiento con los requerimientos emitidos. • Es importante que como parte del proyecto se mantenga el predio con vegetación debajo de los paneles solares, de forma tal que se evite mayor erosión en el terreno y por lo tanto sedimentación a los cuerpos de agua. • Se deberá cumplir con el Reglamento sobre Normas de Diseño, Criterios y Mantenimiento para Sistemas de Alcantarillados Pluviales en Puerto Rico (Reglamento de Planificación Núm. 40 del 18 de abril de 2023). • De la descarga de escorrentías de cualquier estructura de mitigación propuesta en el predio ser al Río Coamo, se deberá presentar un Estudio Hidrológico Hidráulico (EHH) en el DRNA para dicho análisis. La preparación del EHH deberá cumplir con los criterios y procedimientos establecidos en el documento, Guías para la Elaboración de Estudios Hidrológicos-Hidráulicos, con vigencia del 15 de junio de 2016, según adoptado por la Junta de Planificación mediante la Resolución JP-HH-2016, del 10 de junio de 2016. Dicho documento puede obtenerse en formato PDF a través del portal cibernético de la JP, cuya dirección electrónica deberá escribirse según se indica a continuación: <http://jp.pr.gov/Planificación-Física/Física/>. El EHH, tiene que cumplir con las disposiciones del Capítulo III (“Ámbito de los Servicios que Cancelan Estampillas”), Artículo 2





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("Documentos"), y el Capítulo V ("La Estampilla Tradicional") o el Capítulo VI ("La Estampilla Digital Especial (EDE)"), o ambos, del Manual de Guías para la Cancelación de Estampillas del CIAPR (CIAPR-S-003), emitido el 18 de marzo de 2017 por la Junta de Gobierno del CIAPR, según lo requiere el Artículo 8 de la Ley 147-2016. • El predio propuesto para desarrollo ha sido clasificado en el Plan de Usos de Terrenos de Puerto Rico como Suelo Rústico Especialmente Protegido Agrícola. Lo anterior implica que los comentarios del Departamento de Agricultura deben ser imprescindibles para cualquier determinación relacionada al proyecto. • Deberá cumplir con las disposiciones del Reglamento para el Control de Contaminación Atmosférica, el Reglamento para el Control de la Contaminación por Ruido, el Reglamento de Estándares de Calidad de Agua, el Reglamento para el Control y la Prevención de la Contaminación Lumínica y el Reglamento para el Manejo de Desperdicios Sólido No Peligrosos, así como obtener los permisos correspondientes relacionados a dichos reglamentos y el Reglamento para el Trámite de Permisos Generales. • Deberá cumplir con las disposiciones de la Regla 3.4.1 ("Permiso Único Incidental Operacional"), la Sección 5.1.9.3 ("Manejo de Aguas Pluviales"), la Sección 5.1.9.4 ("Obras Pluviales") y la Sección 9.13 (Hábitat) del Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios (Reglamento Núm. 9473, con vigencia del 16 de junio de 2023, adoptado por la Junta de Planificación mediante la Resolución JP-RP-41, del 16 de junio de 2023). • Implementar todo tipo de medidas disponibles (Plan CES, el "Storm Water Pollution Prevention Plan-SWPPP", filtros, pacas de heno, etc.) para el control de sedimentación y escorrentías que puedan afectar los cuerpos de agua. Se deberán implantar las mejores prácticas posibles (BMPs, por sus siglas en inglés) a ser ejecutadas durante cada etapa del proyecto. Las BMPs son las técnicas (zonas de amortiguamiento, cortinas de retención de sedimento, estanques de detención, surcos, etc.), programación de actividades, prácticas prohibidas, y procedimientos de mantenimiento para prevenir o reducir las descargas de contaminantes a los cuerpos de agua cercanos que pudieran afectarse durante la construcción. Asimismo, se deberán tomar medidas para evitar que residuos de sustancias orgánicas e inorgánicas tales como: aceite: combustibles y otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a los cuerpos de agua o se infiltren en el terreno. • Según la página "Information for Planning and Consultation" (IPaC) del Servicio Federal de Pesca y Vida Silvestre (USFWS), el área que cubre este proyecto está situada dentro del alcance de la distribución geográfica del guabairo (*Caprimulgus noctitherus*), la boa de Puerto Rico (*Chilabothrus inornatus*) y el sapo concho (*Peltophryne lemur*), especies en peligro de extinción a nivel federal y estatal. Por lo que, de encontrarse individuos de dichas especies dentro de la propiedad los mismos no podrán ser perturbados y deberán ser removidos o reubicados por los biólogos del DRNA o los miembros del Cuerpo de Vigilantes de Recursos Naturales y Ambientales o por biólogos de vida silvestre bajo contrato con la parte proponente por servicios profesionales que cuenten con un permiso federal del Fish and Wildlife Service, y que el DRNA haya designado explícitamente como sus agentes para ese propósito. El proceso para la autorización del biólogo se rige por el Reglamento 6766 de 11 de febrero de 2004 (Reglamento para Regir la Conservación y Manejo de las Especies Vulnerables y en Peligro de Extinción en del Estado Libre Asociado de Puerto Rico). Este proceso se lleva a cabo en el DRNA y no en la Oficina de Gerencia de Permisos o a través de ésta. La reubicación de los individuos encontrados deberá producirse no más tarde de las 24 horas (o el próximo día laborable) a partir del momento en el que se informa el hallazgo y, hasta donde sea práctico y viable, los mismos serán reubicados en terrenos cercanos a la propiedad. Estos comentarios son solamente aplicables a la situación de hechos y los datos según presentados y evaluados en el caso y la Secretaria se reserva el derecho de reevaluar, 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 cuando surja nueva información oficial específica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente, o cuando los mismos se emitieron bajo premisas falsas o fraudulentas..

Permisos Operacionales (ADS-JCA)

La Secretaría Auxiliar de Permisos, Endosos y Servicios Especializados del DRNA ha recibido la solicitud de Recomendación Ambiental (REA) referida electrónicamente por la Oficina de Gerencia de Permisos (OGPe) relacionada con el proyecto de referencia para la correspondiente evaluación y comentarios. La acción propuesta consiste en el desarrollo de sistema privado de generación eléctrica fotovoltaica de 100 megavatios (MW) a partir de aproximadamente 200,000 paneles solares, para suplir la red de la Autoridad de Energía Eléctrica (AEE) por 25 años. Este consiste en una finca de generación de energía fotovoltaica, almacenaje de aproximadamente 55 MW-hora en un sistema de baterías,





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otros aparatos relacionados, estructura tipo vagón para operación y mantenimiento, y una línea de transmisión de aproximadamente dos millas que llegará hasta el punto de interconexión con la red eléctrica de la AEE. Los predios para la generación son de aproximadamente 641 cuerdas (aproximadamente 630 acres), ubicados en los Barrios San Ildefonso y Los Llanos del Municipio Autónomo de Coamo. La línea de interconexión, de 115 kV, discurrirá por la servidumbre de la carretera PR-545 (1.7 millas, 2.7 km) y por servidumbres privadas (0.5 millas, 0.8 km) hasta alcanzar el patio de interruptores propuesto en el Barrio Jauca 2 del Municipio de Santa Isabel. Un predio de aproximadamente 1.8 cuerdas (1.75 acres) se propone para el equipo de interconexión con la línea de transmisión de 115 kV de la AEE en el Barrio Jauca 2 del Municipio de Santa Isabel. Según información ofrecida por Convergent en su diseño conceptual preliminar no todo el predio bajo estudio será utilizado para el desarrollo del proyecto propuesto. Se estima una cabida de aproximadamente 375 acres para el desarrollo del proyecto. El DRNA emite sus comentarios al proyecto propuesto basados en la aplicación de leyes y reglamentos vigentes promulgados por la extinta ADS/JCA*(ver nota al final del documento) relacionadas con el manejo y disposición de los desperdicios sólidos y los materiales reciclables y entre otras regulaciones para las diferentes fases del proyecto. Las recomendaciones son de aplicabilidad al proyecto propuesto de este obtener la autorización y permisos requeridos para su ubicación, desarrollo, construcción u operación. A. Deberán cumplir con los requerimientos solicitados por las diferentes áreas del Departamento de Recursos Naturales y Ambientales (DRNA) envueltas en la evaluación del proyecto propuesto. B. Tomando en consideración que el proyecto siempre y cuando haya obtenido y cumplido con las autorizaciones o permisos para su desarrollo de todas las áreas del DRNA, se emiten las siguientes recomendaciones: 1. El proponente cumplirá con las regulaciones relacionadas con el manejo y disposición de los desperdicios sólidos y los materiales reciclables: a. Ley Núm. 70 - 1992, Ley para la Reducción y Reciclaje de los Desperdicios Sólidos, según enmendada, establece el desarrollo e implantación de estrategias económicamente viables y ambientalmente seguras que resulten en la disminución del volumen de desperdicios sólidos que requerirá disposición final. Como parte de estas estrategias, se considera necesario modificar las prácticas de manejo y disposición existentes para reducir la intensidad de uso de los Sistemas de Relleno Sanitario (SRS) del país. b. Reglamento para la Reducción, Reutilización y Reciclaje de Desperdicios Sólidos (Reglamento Núm. 6825 de 2004), según enmendado. (Reglamento 7940, Enmienda Reglamento Núm. 6825). Establecido a tenor con la Ley Número 70 - 1992. □ Desarrollar e implantar reglas y requisitos para establecer estrategias que disminuyan el volumen, cantidad y peligrosidad de los residuos sólidos que requerirán disposición final y propiciar su viabilidad económica y ambiental. 2. Cumplir con los requerimientos establecidos bajo el Reglamento Conjunto para la evaluación y expedición de permisos relacionados al desarrollo, uso de terrenos y operación de negocios (Reglamento Conjunto) a. Todo desarrollo propuesto deberá cumplir con las disposiciones bajo las Secciones 3.2.1.1 y 3.2.1.2, Regla 3.2.1 Permisos de Construcción, Capítulo 3.2 Edificación y Conservación de energía; b. Capítulo 3.4 Permisos de Medioambiente, Regla 3.4.1 Permiso único incidental operacional; Secciones 3.4.1.2 y 3.4.1.3., según aplique. c. Capítulo 3.6 Permisos Generales del Tomo III Permisos para el desarrollo y negocios, según aplique. 3. Toda obra o desarrollo propuesto que realice alguna de las disposiciones incluidas en el Capítulo 3.2 Edificación y Conservación de energía Regla 3.2.1 Permisos de construcción Sección 3.2.1.1 Disposiciones generales, deberá radicar en el DRNA el Plan de Reciclaje fase de construcción para su correspondiente evaluación. Este deberá cumplir con lo siguiente (según aplique): a. Para los proyectos en los cuales no se emplee más de 10 personas, el desarrollador, proponente o contratista solicitará una Exención para la radicación del Formulario del Plan de Reciclaje para la fase de construcción. La solicitud para la exención del Plan de Reciclaje puede radicarla a través de la página del DRNA en Formularios en línea. De tener problemas puede radicar la solicitud a través de construccion@drna.pr.gov b. Para los proyectos que empleen más de 10 personas deberá radicar el Formulario del Plan de Reciclaje para la fase de Construcción, junto a un Memorial Explicativo. c. En caso de demoliciones, deberán radicar el Formulario del Plan de Reciclaje e indicar la cantidad de escombros de construcción a generarse en el proyecto que incluya alternativas para el manejo (reciclaje, reúso) y disposición. d. Tanto el Formulario del Plan de Reciclaje para la fase de construcción como de demolición puede radicarlo a través de la dirección electrónica construccion@drna.pr.gov 4. Todo desarrollo propuesto deberá promover la recuperación de materiales reciclables y el manejo y disposición tanto de los reciclables como de los desperdicios sólidos sea el adecuado, según dispuesto en cumplimiento con la reglamentación vigente para el manejo y disposición de los desperdicios sólidos no peligrosos en PR. □ Designar un área para la recuperación de materiales reciclables durante la construcción. □ Indicar la entidad responsable (municipio o compañía privada) del recogido y disposición de los desperdicios sólidos y los materiales reciclables. 5. Todo proceso de almacenaje, manejo y disposición de los desperdicios sólidos no peligrosos a ser generados durante las diferentes fases del proyecto





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propuesto, serán realizados en conformidad con lo estipulado bajo el Reglamento para el manejo de desperdicios no peligrosos, Reglamento Núm. 5717-1997. 6. Mantener los camiones de carga que se utilicen para transportar escombros y/o materiales de construcción cubiertos con toldos mientras estén en movimiento, para evitar la generación de polvo fugitivo. 7. Los camiones de acarreo de desperdicios deberán contar con el Permiso para Operar Servicios de Recolección o Transportación de Desperdicios Sólidos No Peligrosos (Permiso DS-1) emitido por el DRNA, para transportarlos hasta una instalación de disposición final o de reciclaje. 8. Deberán tomar las medidas necesarias para controlar el área durante la construcción para evitar exponer a los vehículos a recoger lodo, polvo, sustancias pegajosas o material viscoso en las ruedas u otras partes del vehículo, los cuales a su vez puedan ser depositados en las calles u otro sitio público y así mantener las vías públicas y alrededores del proyecto libres de acumulación de desechos de construcción. 9. Tomar las medidas necesarias para evitar que residuos de sustancias orgánicas e inorgánicas como aceites, combustibles u otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a cualquier cuerpo de agua o sistema pluvial del área. 10. Se tomará en consideración todo lo concerniente al manejo de aguas pluviales y control de escorrentías del predio. Tomar las medidas necesarias para el control de erosión y prevención de la sedimentación durante la realización de las obras. 11. Todos los materiales excedentes y escombros de construcción resultantes deberán haberse removido completamente del lugar, una vez completadas las obras. Se deberá disponer de estos de manera adecuada. 12. Solicitar a través de la Oficina de Gerencia de Permisos (OGPe) el Permiso General para otras obras conforme al reglamento Núm. 7308 del 1 de marzo de 2007, conocido como el Reglamento para el trámite de Permisos Generales, que incluye el Permiso para el control de la erosión y prevención de la sedimentación. 13. Considerar técnicas de prevención de contaminación: a. Utilizar practicas adecuadas de mantenimiento del área b. Utilizar productos sin materiales tóxicos. c. Emplear materiales reusables o reciclables. d. Conservar el agua y los recursos energéticos. e. Rotular recipientes y contenedores, apropiadamente, para lo que estén designados. 14. En lo relacionado al nivel de sonido máximo permitido, cumplir con el Reglamento Número 8019 del 9 de mayo de 2011, conocido como el Reglamento para el Control de la Contaminación por Ruido. 15. Cumplir con el Reglamento Número 5300 del 28 de agosto de 1995 conocido como el Reglamento para el Control de la Contaminación Atmosférica. 16. Cumplir con el Reglamento Núm. 8786 del 9 de agosto de 2016, conocido como el “Reglamento para el Control y la Prevención de la Contaminación Lumínica” en lo relacionado a fuentes emisoras de iluminación exterior y demás requisitos aplicables al proyecto que disponga dicho reglamento. 17. El proponente/desarrollador/contratista del proyecto será responsable de cumplimentar las Leyes y Reglamentos antes mencionadas. Cumplirá con los permisos requeridos bajo las leyes y reglamentos vigentes. Además, de la documentación requerida por las agencias concernidas (En particular, con los requerimientos y recomendaciones de otras Áreas o Divisiones del DRNA) 18. La REA se somete ante la OGPe según lo dispuesto en la Regla 116 del Reglamento para el Proceso de Evaluación Ambiental (RPEA), como parte del procedimiento requerido para la acción propuesta y la misma es circulada a las agencias con inherencia que la OGPe estime pertinente. Según dicho Reglamento, el documento ambiental que finalmente se someta ante la OGPe, deberá cumplir con la Regla 118 en cuanto a formato y con la Regla 120 en cuanto a contenido del RPEA. Las recomendaciones emitidas aplican a los hechos presentados y evaluados al momento. El DRNA se reserva el derecho de reevaluar y modificar los mismos en el caso de surgir información oficial que identifique que las condiciones han cambiado, o cuando los comentarios hayan sido emitidos bajo premisas falsas. Además, el DRNA tiene la facultad de solicitar cualquier información adicional que entienda pertinente y que, de conformidad con las leyes y reglamentaciones vigentes, garantice el interés público y la protección del ambiente. *Nota : “De acuerdo con el Plan de Reorganización del Departamento de Recursos Naturales y Ambientales de 2018, Ley 171 del 2 de agosto de 2018, Sección 92 – Cláusula de sustitución – Cualquier referencia a la Autoridad de Desperdicios Sólidos, y la Junta de Calidad Ambiental contenida en cualquier ley, reglamento o documento oficial del Gobierno de Puerto Rico se entenderá enmendada a los efectos de referirse al Departamento de Recursos Naturales y Ambientales que se entenderá como su sucesor para todos los fines legales correspondientes.”

Salud y Seguridad

N/A

Arqueología y Conservación Histórica

PO Box 41179, San Juan, PR 00940





Recomendación Ambiental

COMENTARIO FINAL DE LOS PROGRAMAS DE PATRIMONIO HISTÓRICO EDIFICADO Y ARQUEOLOGÍA Y ETNOHISTORIA DEL ICP A CASO NÚM: 2023-503177-REA-013365 -- PROYECTO: CONVERGENT COAMO ENERGY STORAGE 1, LLC. -- I. BASE LEGAL: Se emite el siguiente comentario en base a la Ley 374 del 14 de marzo de 1949, según enmendada, Ley de Zonas Antiguas o Históricas y Zonas de Interés Turístico, Ley 3 del 2 de marzo de 1951, Ley de Edificios y otras Estructuras Históricas y la Ley 89 del 21 de junio de 1955, según enmendada, conocida como Ley Orgánica del Instituto de Cultura Puertorriqueña y la Ley 161 del 1 de diciembre de 2009, conocida como Ley para la Reforma del Proceso de Permisos de Puerto Rico. Estas leyes le confieren jurisdicción sobre los siguientes asuntos: 1. Edificios, lugares y zonas incluidas en el Registro de Sitios y Zonas Históricas de Puerto Rico de la Junta de Planificación (REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS); 2. Edificios, lugares y zonas declaradas históricas a través de legislación (o de resolución de la JUNTA DE DIRECTORES DEL ICP; 3. Plazas de recreo y edificios circundantes (REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS); 4. Propiedades zonificadas "P" construidas previo a 1960 (RESOLUCIÓN JPE-25 Y RESOLUCIÓN JPE-047); 5. Propiedades zonificadas "CRH", "SH" o "R-ZH"- Según REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS; 6. Propiedades elegibles a sitios históricos; propiedades de valor histórico que satisfacen los criterios de elegibilidad como sitios históricos para ser designada como tal individualmente (LEY NÚM. 89 DE 1955; REGLAMENTO CONJUNTO PARA LA EVALUACIÓN Y EXPEDICIÓN DE PERMISOS RELACIONADOS AL DESARROLLO, USO DE TERRENOS Y OPERACIÓN DE NEGOCIOS). II. PROGRAMA DE ARQUEOLOGIA Y ETNOHISTORIA (PAE). Base Legal: La Ley 161-2009, según enmendada, Artículo 19.6, enmienda las Secciones 2 y 3 de la Ley Núm. 112 de 20 de julio de 1988, según enmendada, conocida como "Ley de Protección del Patrimonio Arqueológico Terrestre de Puerto Rico", a los fines de transferir al Instituto de Cultura Puertorriqueña toda facultad, deber u obligación referente a la evaluación para la otorgación o denegación de determinaciones finales o permisos, esto en coordinación con la Oficina de Gerencia de Permisos. El Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operaciones de Negocios (RC-2020); registrado en el Departamento de Estado de Puerto Rico bajo el Número 9233 con vigencia de 2 de enero de 2021, establece, entre otros, lo siguiente: a. Regla 2.1.8, Sección 2.1.8.7, Inciso "b": Todo proyecto público o privado que conlleve movimiento de terreno, excavación, extracción de corteza terrestre o construcción, reconstrucciones o canalizaciones deberá solicitar a la División o Unidad de Evaluación Ambiental (DECA) la recomendación del ICP sobre Arqueología y Conservación Histórica, ya sea a través de la OGP, los Municipios Autónomos con Jerarquía 1 a la III o el Profesional Autorizado. b. CAPÍTULO 10.2, Sección 10.2.1.2 se requerirá la recomendación del ICP en todos los Permisos relacionados con construcción, reconstrucción, trabajos de excavación, extracción o movimiento de tierras en lugar alguno del que haya documentación previa o indicios fidedignos de presencia de material arqueológico. Incluye los centros fundacionales de los municipios, entiéndase, plaza de recreo y bloques circundantes, conforme a la Ley 89-1955, supra, Sección 4. —Propósitos, Funciones y Poderes del Instituto. (18 L.P.R.A. sec. 1198) y la Ley Número 112 del 20 de julio de 1988, conocida como la "Ley de Protección del Patrimonio Arqueológico Terrestre", según enmendada. III. EVALUACIÓN PROGRAMA DE ARQUEOLOGIA Y ETNOHISTORIA: ICP-PAE: AUTORIZACION PARCIAL. El Programa de Arqueología y Etnohistoria (PAE) del Instituto de Cultura Puertorriqueña (ICP) ha recibido y evaluado el Estudio Arqueológico Fase IA-IB-Revisado, realizado por los arqueólogos Aramis Font Negrón y Raquel Camacho-Hernández, con fecha del 9 de noviembre de 2023 en relación con el proyecto descrito en referencia. Esta revisión y evaluación son efectuadas conforme a las disposiciones de la Sección 10 de la Ley 112 del 20 de julio de 1988, según enmendada, conocida como la Ley de Arqueología Terrestre de Puerto Rico y el Reglamento para la Protección y Evaluación Arqueológica de Proyectos de Construcción y Desarrollo, Reglamento Núm. 8932, 2017. Basado en la investigación presentada, hemos determinado que al presente no se ha detectado evidencia significativa, que sugiera que el desarrollo del proyecto en cuestión pudiera causar algún tipo de impacto adverso a recursos arqueológicos. Sin embargo, coincidimos con las recomendaciones presentadas por los arqueólogos en las páginas 126 y 127 del informe revisado. En el área de los Remanentes de la Hacienda Carmen que ubica en la Finca 15210, recomendaron levantar una verja delimitando la zona de amortiguamiento y deberán seguir la recomendación referente al área a proteger: "Preliminarmente se establece una frontera horizontal para los remanentes de la Hacienda Carmen con una extensión aproximada de trece mil metros cuadrados (13,000 m²) según se ilustra en las Figuras 36 y 37" del informe. En el área identificada como Área de Interés Arqueológico adyacente a la línea de





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transmisión que ubica en la Finca Jiménez se deberá seguir las recomendaciones según los arqueólogos: “Como dato relevante la línea de interconexión está diseñada para transcurrir aérea, lo que evitaría su impacto. Sin embargo, se recomienda establecer una zona de protección partiendo de la frontera horizontal establecida preliminarmente por nosotros. Debido a la extensión limitada de este recurso, recomendamos que durante las obras de construcción el mismo sea identificado como “Área Protegida” y que se proteja de impacto por medio de una verja temporera que delimite la ubicación del área de amortiguamiento que se establezca. Los ingenieros de campo deberán evitar utilizar el área protegida como estacionamiento de vehículos, almacén de materiales o equipo y no ubicarán postes o cualquier otro tipo de estructura dentro de la zona protegida. Los límites preliminares de esta área de interés arqueológico abarcan un área de veinte y cinco metros cuadrados (25m²).” Los trabajos de instalación de las verjas deberán ser monitoreados para evitar impacto. Deberán preparar un informe con la documentación del trabajo realizado durante la monitoria y deberá incluir la localización de las verjas de protección y el área de almacenamiento de materiales y equipo en los planos del proyecto. Por lo tanto, y en virtud de la delegación para la evaluación de Fase I, del Consejo para la Protección del Patrimonio Arqueológico Terrestre de Puerto Rico, en lo que concierne a recursos culturales de naturaleza arqueológica, no tenemos objeción al proyecto según fue radicado y evaluado. Le notificamos que esta autorización queda sujeta a las responsabilidades y obligaciones que impone la Ley 112 del 20 de julio de 1988, según enmendada. Se le apercibe que el incumplimiento con estos requerimientos podrá ser objeto de sanciones administrativas según lo establecido en la citada ley.

División de Evaluación de Cumplimiento Ambiental

En el Documento de Evaluación Ambiental (DEA) que se someta se deberá atender los comentarios y requerimientos que hayan emitido las agencias comentadoras. La DEA deberá ser tramitada a través del Single Business Portal (SBP).

Se incluyen los comentarios del Departamento de Recursos Naturales y Ambientales (JCA y ADS) bajo la División de Medioambiente.

Condiciones Generales

Esta recomendación es solamente aplicable a la situación de hechos y los datos según presentados y evaluados en el caso. La OGPe se reserva el derecho de reevaluar, variar o modificar el mismo en cualquier momento anterior a la emisión del permiso o requerir la acción administrativa correspondiente por parte de la agencia solicitante o proponente cuando surja nueva información oficial específica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente, o cuando la recomendación original se emitió bajo premisas falsas o fraudulentas.

Habido recibido los comentarios de las agencias gubernamentales concernidas. Esta información será utilizada para la presentación del Documento Ambiental correspondiente a ser evaluado por la División de Evaluación de Cumplimiento Ambiental.

Vigencia

Las vigencias de las diferentes agencias del proceso de recomendación serán los establecidos en las comunicaciones que en estas emitan conforme a sus reglamentos. Esta recomendación ambiental tendrá una vigencia de trescientos sesenta y cinco (365) días a partir de su expedición.

Condiciones Especiales

NINGUNA





Recomendación Ambiental

Firma / Sellos

Fecha de Expedición:

01/FEB/2024





Determinación de Cumplimiento Ambiental para Evaluación Ambiental

Convergent Coamo Energy Storage 1, LLC.

Fecha de Expedición:

09/SEP/2024

Datos de Determinación

Presentado por

Municipio Autónomo de Coamo

Número de Caso

2023-503177-DEA-300299

Dirección Física

BO. SAN ILDEFONSO 1,
COAMO, P.R. 00769, COAMO, Puerto Rico, 00769

Casos de Referencia

2023-503177-REA-013365

Número(s) de Catastro

368-000-005-13

Acción Propuesta

La Acción Propuesta consiste en un proyecto: Privado en el Distrito de Clasificación identificado a continuación. El mismo tiene los siguientes componentes:

Calificación

Distrito(s) de Calificación:

UR

Distrito en el Mapa de Inundabilidad:

X

Tipo de Suelo:

CoD (63.8%), LnB (20.2%), LnC2 (16.0%)

Movimiento de Tierra

Volumen: 383000 metros cúbicos

Volumen de corte: 383000 metros cúbicos

Volumen de relleno: 0 metros cúbicos

Demolición

Conlleva demolición: No

Conlleva explosivos: No

Cabida del proyecto (Área Total Según Escritura)

97275.29 metros cuadrados

Instalación de Generadores de Electricidad

Conlleva generadores: Sí

Capacidad: 500 kW

Tanque: 200 galones

Servidumbres Existentes

Acueductos (AAA), Vía municipal de acceso (MUNICIPIO),
Electricidad (AAE)

Desperdicios Sólidos

Volumen en construcción: 75 yardas cúbicas

Tipo: NP

Volumen en operación: 10 yardas cúbicas

Tipo: NP

Descripción

El Proyecto propuesto se compone de un sistema de generación de energía mediante la instalación de paneles fotovoltaicos, organizados en varios predios adyacentes en el municipio de Coamo. Los predios donde se propone la instalación de la facilidad fotovoltaica ubican en los barrios Los Llanos y San Ildefonso del municipio de Coamo y albergarán la mayoría de los componentes necesarios para la operación de la facilidad. Se ha propuesto el desarrollo de



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un patio de interruptores en el barrio Jauca 2 del municipio de Santa Isabel lo que permitirá el despacho de la energía a la red de transmisión existente operado por la AEE.

Los predios propuestos para la planta fotovoltaica, el sistema de baterías y el punto de interconexión incluyen 17 parcelas, con un área aproximada de 641 cuerdas (630 acres) y están ubicados al sur de la Carretera PR-14, Km-28, Barrios San Ildefonso y Los Llanos en el Municipio de Coamo. Del área total donde ubican los componentes de la finca fotovoltaica, solo se ocuparán aproximadamente 375 acres para el desarrollo del proyecto. El remanente de las áreas que no serán utilizadas, permanecerán bajo las características naturales existentes. Al este y sureste, los predios colindan con el Río Coamo (colindante y fuera del límite del proyecto) y con terrenos privados, unos urbanizados y otros bajo uso agrícola; al sur los predios colindan con terrenos privados bajo uso agrícola; al oeste colindan con una quebrada sin nombre y con terrenos privados, principalmente urbanizados; y al norte colindan con la Carretera PR-14 y con terrenos privados, la mayoría desarrollos residenciales y algunas áreas se encuentran baldías. El predio muestra características que es utilizado de forma parcial para uso agrícola (aproximadamente 10%) que incluyen áreas preparadas para cultivos de plátanos y heno. La topografía en los terrenos del predio es predominantemente semi llana excepto en las áreas este y sur en las que ubican tres montículos o colinas con pendientes. Estos montículos se mantendrán en su condición actual.

Las parcelas identificadas para el desarrollo de la facilidad fotovoltaica son los siguientes:

Parcelas que componen la Facilidad Principal Fotovoltaica (Paneles Solares, Subestación, Sistema de Baterías y Facilidades O&M):

368-000-005-13-000, 369-000-001-22-000, 368-000-005-11-000, 369-000-001-21-000, 368-000-005-12-000, 368-000-005-10-000, 368-000-005-28-000, 368-000-005-29-000, 368-000-005-31-000, 368-000-005-33-000, 368-000-005-32-000, 368-000-005-14-000, 369-000-001-25-000, 368-000-004-08-001, 368-000-005-26-000, 368-000-005-27-000, 368-000-005-35-000.

Parcelas por donde discurre la línea de transmisión:

368-000-009-22-000, 368-000-009-21-000, 368-000-009-27-000, 368-000-009-07-000, 368-000-009-14-000, 392-000-004-23-000, 392-000-004-22-000, 392-000-004-21-000, 368-000-009-30-000, 368-000-009-32-000, 368-000-009-29-000, 368-000-009-05-000, 368-000-010-11-001, 368-000-009-19-000, 368-000-009-20-001, 368-058-451-01-000, 392-000-005-11-001, 368-000-006-17.

Parcela donde ubica el Punto de Interconexión:

392-000-005-10-000

Predio de la finca solar en los barrios Los Llanos y San Ildefonso de Coamo (predio de la finca solar):

Generará unos 100 MW, a partir de aproximadamente 200,000 paneles solares. Dichos paneles serán instalados en armazones fijos anclados directamente en el terreno (sin fundaciones de hormigón). La instalación de los paneles será diseñada para resistir vientos de huracán entre 160 a 170 millas por hora. Las placas tendrán una inclinación fija de 8% de cara al sur. En la finca se ubicarán sistemas complementarios, incluyendo inversores de potencia, los cuales transforman la energía que generan los paneles fotovoltaicos de corriente continua a corriente alterna. Además, se instalarán mediante trincheras los colectores o líneas que transmitirán la energía producida por los paneles solares. • Sistema de almacenamiento de energía de gran escala– Consiste en de un sistema de baterías (BESS en inglés) para almacenar aproximadamente 55 MW-hora. El propósito es asegurar un suplido de energía consistente y sostenido de forma que compense la intermitencia asociada con la energía solar (i.e. cielo nublado, tiempo nocturno, etc.). Para ello se propone mantener un 50% de energía en reserva para cubrir las cargas pico y asegurar que el sistema eléctrico sea operado y mantenido de forma apropiada, confiable y ágil en su transmisión para distribuir a la AEE. • Subestación – Se propone la instalación de una subestación de 115kV. La función de este componente es transformar y regular la energía



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que es producida por la facilidad de forma tal que entre al mismo voltaje a la red existente de transmisión de energía. La subestación estará protegida mediante una verja alrededor de su perímetro. • Estructura para operación y mantenimiento (O&M, en inglés) – Consiste en una estructura tipo vagón a ser ubicada adyacente a la subestación, la cual será utilizada como centro de operaciones de la facilidad. Las facilidades estarán ubicadas dentro de un perímetro protegido mediante verja. Sistemas de seguridad – Estos incluyen verjas y sistema de circuito cerrado en la periferia del predio.

Línea de Transmisión a lo largo de la servidumbre de la carretera PR-545:

Esta es una línea de 115 kilovoltios kV de aproximadamente dos millas de largo que discurrirá la cual discurrirá paralela y preferiblemente dentro del derecho de paso (ROW) de líneas eléctricas existentes hasta el punto de interconexión con la línea de transmisión de AEE a lo largo de la PR-545, específicamente en el barrio Jauca 2 en el Municipio de Santa Isabel, en un área de aproximadamente de 1.75 acres. Esta línea llegará al punto de interconexión con la red eléctrica de la AEE.

Predio de interconexión en el barrio Descalabrado de Santa Isabel (predio de interconexión):

Este punto, a ser ubicado en un área de aproximadamente 1.8 cuerdas (aproximadamente 1.75 acres), albergará un patio de interruptores. La estación de unos tres interruptores anclados a fundaciones de concreto que ocupará una huella de aproximadamente 300 pies por 300 pies, además, habrá dos estructuras de armazón tipo A y una estructura modular para el control de caída de voltaje con una huella con dimensiones aproximadas de 16 pies por 18 pies. Este equipo provee redundancia a la seguridad del sistema. El equipo como tal se anclará a fundaciones de concreto, mientras que el resto de la superficie del área de interconexión será cubierto con piedra. Se colocará una verja en los límites del patio de interruptores, así como alumbrado en la entrada y puntos estratégicos para proveer protección a la facilidad. La interconexión será mediante la línea de transmisión de 115 kV que discurre de este a oeste dentro de los límites del Municipio de Santa Isabel y que es propiedad de la AEE.

El Proyecto será implementado en fases, según se describen a continuación:

Las acciones en la Fase de Preparación/Construcción del sitio incluyen las siguientes actividades. Estas tendrán lugar entre 7 am y 5 pm de la noche, cinco días a la semana y tendrán una duración de aproximadamente un año.

- Instalación de rótulos en las carreteras de acceso a las áreas en preparación/construcción identificando la actividad de construcción.
- Protección del perímetro de los predios, mediante la instalación de verjas.
- Protección de los recursos arqueológicos / históricos identificados en el Estudio Arqueológico Fase I mediante la instalación de verja alrededor del área de amortiguamiento de dichas áreas (buffer).
- Implementación de medidas de control de sedimentos y erosión en los predios donde ubicarán los diferentes componentes del proyecto y que estarán sujetos a movimiento de terreno.
- Movilización de equipos e instalación de oficinas temporeras tipo vagón que serán utilizadas para esta etapa.
- Limpieza y desbroce de la vegetación en las áreas que así lo requieran.
- Movimiento mínimo del terreno en aquellas áreas que así lo requieran, dado que la topografía existente es esencialmente semillana u ondulada, y se prevé que las actividades de nivelación del terreno serán mínimas.
- Habilitación de caminos internos existentes, no pavimentados, en el parque de generación fotovoltaica.
- Instalación de los paneles solares y los sistemas complementarios, incluyendo la instalación de una estructura tipo vagón para albergar actividades operacionales y de mantenimiento.

La fase de operación del Proyecto incluye las actividades que se mencionan a continuación:

El periodo de operación es de unos 25 años, de acuerdo con el PPOA:

- Inspección y mantenimiento de sistemas de protección incluyendo verjas del perímetro de los predios.
- Lavado de los paneles solares para remoción de polvo, cada seis a 12 meses. El lavado puede ser solamente con agua o podrían utilizarse detergentes biodegradables.



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- Inspecciones regulares de la ejecución de los diferentes componentes del Proyecto y ajustes según sea necesario.
- Mantenimiento de la vegetación que crece entre las placas. Se evalúa la propuesta de combinar la operación con un componente agropecuario como el ovino (ganado de ovejas). Las ovejas se utilizan comúnmente para el pastoreo en el control de la vegetación en instalaciones solares en los Estados Unidos y Europa.

Impactos al Ambiente y Medidas de Mitigación

El predio propuesto para el Proyecto consiste en terrenos clasificados como terrenos agrícolas de importancia estatal y terrenos agrícolas de primera ("prime farmland") si se riegan, según USDANRCS. Estos mayormente se encuentran en reposo, con cubierta vegetal marginal desde el punto de vista ecológico. El Proyecto ocupará un área de aproximadamente 386 cuerdas (375 acres) (58.8 %) del predio de la finca solar. Las áreas para ocupar han sido históricamente utilizadas para la agricultura, práctica que, a enero de 2023, continúa en algunas porciones del predio de la finca solar con la producción de heno, plátanos y otras áreas preparadas para la siembra en aproximadamente un 6.37% de la totalidad del predio. El resto de terreno (95.65%) está en desuso. La huella de impermeabilización del Proyecto es pequeña, por lo cual no se anticipa un aumento en la velocidad, ni en la cantidad de escorrentía pluvial a causa del Proyecto. Los efectos de la construcción, tales como remoción de árboles, remoción de la capa vegetal, erosión, sedimentación, tránsito de vehículos pesados, polvo fugitivo y ruido, son las consecuencias más notables del Proyecto, y de naturaleza temporera. Para minimizar y evitar estos impactos, se estarán implementando las mejores prácticas de manejo.

Los impactos y medidas de control, minimización y mitigación durante la etapa de construcción serán:

Erosión y sedimentación de cuerpos de agua debido al movimiento de terreno y a la remoción de la capa vegetal: Desarrollarán e implementarán un plan de control de erosión y sedimentación para la construcción y cumplir con sus condiciones. Este incluirá un sistema de manejo de aguas pluviales para la retención de sedimentos, tales como estructuras, filtros vegetativos, trampas para sedimentos, lavado de llantas, etc. Prepararán e implementarán un plan para la prevención de contaminación de aguas de escorrentía (SWPPP, en inglés) como parte del permiso NPDES de la USEPA para la construcción. Solicitarán un Permiso General Consolidado (PGC) y cumplirán con sus condiciones.

Deforestación. Pérdida de hábitats y fauna existente. Los árboles a ser impactados se mitigarán de acuerdo a un Permiso de Corte y Poda. Prepararán y ejecutará un plan de mitigación con especies apropiadas. Emisión de ruido por vehículos y actividades de construcción. No se realizarán actividades de construcción ni demolición durante el período nocturno. Se mantendrá un control de las tareas que se realizarán a diario para cumplir con el horario de trabajo establecido. Monitorear los sistemas de control de emisiones de los equipos pesados. Utilizar la capa vegetal removida del predio para crear filtros alrededor de las zanjas de drenaje.

Generación de residuos sólidos: Solicitarán el PGC de OGPe, que incluye un permiso de generación de desperdicios sólidos no-peligrosos, y cumplir con sus condiciones.

Los impactos y medidas de control, minimización y mitigación durante la etapa de operación serán:

Escorrentía pluvial: Sólo se utilizarán detergentes orgánicos de bajo impacto al ambiente, tales como aquellos bajos en fosfatos, para el mantenimiento de los paneles PV.

Terrenos agrícolas utilizados para otros fines: Una vez el uso PV del predio cese: Remoción de paneles y sus soportes. Reciclar acero, aluminio, sílice y cobre. Descompactar el suelo en las áreas impactadas por el movimiento de vehículos.

El predio del proyecto cuenta con la Certificación de Categorización de Hábitat para Vida Silvestre del Departamento de Recursos Naturales y Ambientales emitida en la solicitud de Recomendación Medioambiente 2023-503177-SRM-300616, con fecha del 3 de septiembre de 2024, donde se categoriza las porciones del predio ocupadas por los drenajes (Río Coamo y quebradas) y los bosques de galería en sus respectivas orillas, como un Hábitat Natural de Valor Ecológico



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(Categoría 4). Mientras que el resto del predio se califica como Hábitat Natural con Alto Potencial de Convertirse en Hábitat Esencial, Hábitat de Alto Valor Ecológico o de Valor Ecológico (Categoría 5).

Determinación

Luego de revisado y analizado el expediente administrativo y discutidos todos los méritos del documento ambiental, al amparo de los poderes y facultades que le confiere a esta Oficina de Gerencia de Permisos, (en adelante "OGPe") la Ley Núm. 161 - 2009, según enmendada y el Reglamento para el Proceso de Evaluación Ambiental de la Junta de Calidad Ambiental (en adelante "RPEA"), RESOLVEMOS:

- La Evaluación Ambiental (en adelante, "EA") sometida por la Agencia Proponente para la acción propuesta, cumple con todos los requisitos de la Ley sobre Política Pública Ambiental, Ley Número 416 - 2004, según enmendada, y con el RPEA. En dicho documento ambiental fueron adecuadamente considerados y analizados los impactos ambientales que conlleva la acción, por lo que se aprueba el mismo, dando así por terminado el proceso de evaluación ambiental.
- De conformidad con el RPEA, las medidas de mitigación contenidas en el documento ambiental serán obligatorias y constituirán las medidas mínimas a tomarse en consideración para proteger el ambiente. La Agencia Proponente requerirá a las agencias con jurisdicción que incluyan las medidas de mitigación como condición indispensable de sus permisos.
- La Agencia Proponente deberá procurar que al momento de llevarse a cabo el desarrollo del Proyecto, las recomendaciones emitidas por los Gerentes de Permisos de la OGPe sean adecuadamente observadas y consideradas. Asimismo, la Agencia Proponente será responsable de velar que la acción, de llevarse a cabo, se desarrolle acorde con la información suministrada en el documento ambiental presentado apercibiéndosele que, los permisos que administran las entidades gubernamentales en relación al cumplimiento de las mismas están supeditados a la información y datos contenidos en documento ambiental.
- Si luego de haberse dado cumplimiento con el Artículo 4 de la Ley Núm. 416, supra, surgieran variaciones sustanciales en la acción propuesta, según definida en el RPEA, la Agencia Proponente será responsable de evaluar dichos impactos mediante el documento ambiental que entienda correspondiente.
- Se le apercibe que esta determinación de cumplimiento ambiental no será revisable hasta tanto se emita una determinación final, cuyo componente sea la presente determinación.

Recomendación y/o Comentarios del Director de la División de Cumplimiento Ambiental

El proyecto fue evaluado bajo el procedimiento expedito a tenor con la Orden Ejecutiva del Gobernador emitida bajo el Boletín Administrativo Núm. OE-2023-003 y la Orden Administrativa OGPe 2023-01.

- 1.Solicitar a través de la Oficina de Gerencia de Permisos (OGPe) el Permiso Único Incidental Operacional, a tenor con la Regla 3.4.1 del Reglamento Núm. 9473, vigencia 16 de junio de 2023, conocido como el "Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios".
- 2.Todo proceso de almacenaje, manejo y disposición de los desperdicios sólidos no peligrosos a ser generados durante las diferentes fases del proyecto propuesto, serán realizados en conformidad con lo estipulado bajo el Reglamento para el manejo de desperdicios no peligrosos, Reglamento Núm. 5717-1997.
- 3.Tomar las medidas necesarias para controlar el área durante la construcción para evitar exponer a los vehículos a recoger lodo, polvo, sustancias pegajosas o material viscoso en las ruedas u otras partes del vehículo, los cuales a su vez puedan ser depositados en las calles u otro sitio público y así mantener las vías públicas y alrededores del proyecto libres de acumulación de desechos de construcción.



Determinación de Cumplimiento Ambiental para Evaluación Ambiental

4. Tomar las medidas necesarias para evitar que residuos de sustancias orgánicas e inorgánicas tales como: aceites, combustibles u otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a cualquier cuerpo de agua o al sistema pluvial.
5. De tener alguna descarga de escorrentía a cualquier cuerpo de agua durante la operación, deberá consultar a la Agencia Federal de Protección Ambiental para determinar si dichas descargas requieren un permiso "NPDES" de acuerdo al Código Federal de Reglamentación Número 40, Sección 122.26 (b) (14) (x).
6. Para operar generadores de electricidad con capacidad mayor de diez (10) caballos de fuerza y una operación no mayor de quinientas (500) horas al año, deberán obtener a través de la OGPe, el Permiso General que establece el Reglamento para el Trámite de los Permisos Generales, que incluye el Permiso de Fuente de Emisión.
7. Para operar tanque(s) sobre tierra de almacenamiento de combustible para abastecer generadores o para cualquier otro equipo, tendrán que presentar un Plan de Emergencia ante el Área de Calidad de Agua del DRNA, a tenor con la Sección 1306.5 del Reglamento Núm. 9079 de 26 de abril de 2019, conocido como el "Reglamento de Estándares de Calidad de Agua", informando la acción a tomar para evitar, controlar y remediar derrames.
8. El almacenaje, manejo y disposición de las baterías de almacenamiento de energía, y desperdicios sólidos no peligrosos a ser generados, debe realizarse en conformidad con el Reglamento Núm. 5717 del 14 de noviembre de 1997, conocido como el "Reglamento para el Manejo de Desperdicios Sólidos No Peligrosos".
9. Relacionado al nivel de sonido máximo permitido, cumplir con el Reglamento Número 8019 del 9 de mayo de 2011, conocido como el Reglamento para el Control de la Contaminación por Ruido.
10. Cumplir con el Reglamento Núm. 8786 del 9 de agosto de 2016, conocido como el "Reglamento para el Control y la Prevención de la Contaminación Lumínica" en lo relacionado a fuentes emisoras de iluminación exterior y demás requisitos aplicables al proyecto que disponga dicho reglamento.
11. Deberá paralizar todo tipo de actividad de excavación, movimiento y remoción de corteza terrestre, y notificar en un plazo de veinticuatro (24) horas al Programa de Arqueología y Etnohistoria, en caso de que, durante el desarrollo del proyecto, se descubra o impacte algún depósito, elemento, estructura o vestigio de naturaleza arqueológica.
12. Cumplir con todos los requerimientos y especificaciones emitidas por el Departamento de Recursos Naturales y Ambientales (DRNA) emitida en la solicitud de Recomendación de Medioambiente (2023-503177-SRM-300381) con fecha del 16 de mayo de 2024. Además, previo a que se otorgue el permiso de construcción, deberán contar con una certificación de deslinde aprobada por el DRNA y que el plano del proyecto incluya dicha faja según certificada por el DRNA.
13. Cumplir con los requerimientos de las agencias concernientes y con las recomendaciones (2023-503177-REA-013365) emitidas para el proyecto.
14. Las recomendaciones y requisitos presentados en esta comunicación no eximen de cualquier otro requerimiento o permiso de esta Oficina u otras agencias concernidas, que sean aplicables a la acción propuesta.



Determinación de Cumplimiento Ambiental para Evaluación Ambiental

Firma / Sellos

CERTIFICO: Que he notificado copia fiel y exacta de la presente determinación con sus anejos, bajo mi firma, a la Agencia Proponente.

Fecha de Expedición:

09/SEP/2024



APPENDIX C SUPPORTING STUDIES

Study of terrestrial flora and fauna

100 MW Solar Photovoltaic Project

May 2023



CONVERGENT

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1. EXECUTIVE SUMMARY

Convergent Coamo Energy Storage LLC (Convergent) proposes a 100 MW generation project, with the purpose of providing electrical energy to the distribution network of the Puerto Rico Electrical Power Authority (PREPA) for a period of 25 years.

The generation project includes the installation of photovoltaic panels, current inverters, an operation and maintenance building, a battery system to store approximately 55 MW/hr and a 115-kV transmission line, to be connected to the existing PREPA transmission line.

The construction and installation of this system is proposed in an area of approximately 630 acres, located south of the PR-14 highway between the Los Llanos and San Ildefonso Wards of the Municipality of Coamo. Of the total area, only approximately 375 acres are expected to be used for the installation of the project components. The 115-kV interconnection line will run through the PR-545 highway easement (1.7 miles, 2.7 km) and through private easements (0.5 miles, 0.8 km). A tract of land of approximately 1.75 acres is proposed for the interconnection equipment with PREPA's 115 kV transmission line in the Jauca 2 Ward of the Municipality of Santa Isabel.

Convergent has hired the services of CSA Architects & Engineers (CSA) to carry out a Terrestrial Flora and Fauna Study, as part of the supplementary studies to the environmental document that will be prepared for the proposed project. The purpose of this study is to evaluate and describe the general flora and fauna of the properties proposed for the construction of the project, the different existing ecological associations, determine the presence of critical, threatened or endangered species in the project area and recommend measures to reduce or eliminate the possible impacts of the project on these resources. The findings are summarized below:

- In the area proposed for the project (main plot, polygon 1 and transmission line route), three hundred and twenty-four (324) plant species corresponding to seventy-four (74) families were identified.
- Through the extension of the proposed properties, two (2) main vegetative associations were identified that were classified as: land previously used for agriculture (77.3%) and strips of riparian forest (5.7%). In turn, three (3) hills can be observed within the property; high slope areas (17.0%) that are outside the project design.
- The dominant vegetation association is *land previously used for agriculture (77.3%)*. The common species in these areas turned out to be fast-growing invasives such as Zarcilla (*Leucaena leucocephala*), Acacia (*Albizia procera*), American guamá (*Pithecellobium dulce*), Red escambron (*Pithecellobium unguis-cati*), Samán (*Samanea saman*), Aroma (*Vachellia farnesiana*), Capulín (*Muntingia*

calabura), Silk Cotton (*Calotropis procera*), Tua-túa (*Jatropha gossypifolia*) and several of the genus *Lantana*. Among the herbaceous plants that cover these areas are *Arivela viscosa*, malvaceae of the genera *Bastardia*, *Sida*, *Malvastrum*, *Sidastrum* and *Malachra*, and grasses of the genera *Echinochloa*, *Digitaria*, *Bothriochloa*, *Urochloa* and several of the *Cyperaceae* family. In the southeastern portion of the property, some active crops are identified that include fields of Pumpkin (*Cucurbita moschata*), Melon (*Cucumis melo*) and Banana (*Musa acuminata x balbisiana*). Particularly in the northwest and central west, hay collection is observed in areas dominated by “Yerba de las traviesas” (*Dichanthium annulatum*), a naturalized species whose use is mainly for grazing and haymaking.

- The association identified as strips of riparian forests (5.7%), are portions along the Coamo River, streams and other beds that intermittently conduct stormwater runoff. These forested corridors are home to woody species such as Almacigos (*Bursera simaruba*), Ceiba (*Ceiba pentandra*), Flamboyán (*Delonix regia*), Úcares (*Terminalia buceras*), Cassias (*Senna siamea*), Mocas (*Andira inermis*), Guácima (*Guazuma ulmifolia*), and the Wrist stick (*Cordia collococca*).
- Excluded from the project components, three (3) hills were observed; high slope areas (17.0%) partially forested, where native dry forest species have been established such as Cariaquillo morado (*Lantana fácil*), Retama (*Poitea florida*), Guácima (*Guazuma ulmifolia*), Úcar (*Terminalia buceras*) and Parakeet (*Adelia ricinella*) along with fast-growing exotic species such as the Zarcilla (*Leucaena leucocephala*) and the American Guamá (*Pithecellobium dulce*).
- As far as fauna is concerned, a total of 71 species were observed, with birds being the dominant group. The most common bird species on the property and surrounding areas are: Turkish pigeon (*Patagioenas squamosa*), Comeñame (*Loxigilla portoricensis*), Butterfly warbler (*Dendroica adelaidae*), Rolita (*Columbina passerina*), Pitirre (*Tyrannus dominicensis*), Jewish squig (*Crotophaga ani*), House Sparrow (*Passer domesticus*), as well as sparrows of the genera *Tiaris* and *Melanospiza*. These species were observed mostly in the strips of riparian forest associated with the streams and drainages on the property.
- No critical, threatened or endangered species were observed during the study. The United States Fish and Wildlife Service (USFWS) Data Bank, through its Information for Planning and Consultation (IPaC) tool, identified five species as in danger or threatened in the area.

2. INTRODUCTION

The Puerto Rico Electrical Power Authority (PREPA) (PREPA) awarded a 25-year power purchase and operation agreement (PPOA) to Convergent Coamo Energy Storage, LLC (Convergent), a subsidiary of Convergent Energy Solutions New York LLC. The award was issued for the development of the Convergent Coamo Photovoltaic Battery Energy Storage System (Convergent Coamo PV-BESS), a 100-megawatt (MW) solar photovoltaic (PV) project that includes a solar energy storage system batteries (BESS) of 55 megawatt-hours (MW-hr). The 25-year PPOA was approved by PREPA, the Puerto Rico Energy Bureau (NEPR by its Spanish acronym), and the Financial Supervision and Administration Board for Puerto Rico (JSAF).

The Project will develop, build and operate a system that includes several components, divided into two interconnected parcels. See **Figure 1. Aerial Photo Showing the Project Area**. The largest parcel identified in this study as the main parcel (approximately 630 acres) is located in the Los Llanos and San Idelfonso Wards of the Municipality of Coamo, specifically south of the PR-14 highway, it will house most of the project components. The components that will be located on this property include:

- Solar farm: solar panels installed on fixed frames anchored directly to the ground (without concrete foundations), complementary systems, power inverters, and collectors or lines that will transmit the energy produced by the solar panels.
- Large-scale energy storage system: battery system to store approximately 55 MW-hour.
- Substation: 115kV substation protected by a fence around its perimeter.
- Structure for operation and maintenance: mobile modular structure located adjacent to the substation.
- Security systems: gates and underground closed-circuit system on the periphery of the property.

The smaller parcel; identified in this study as Polygon 1 (approximately 1.75 acres) and located in the Jauca 2 Ward of the municipality of Santa Isabel, it will house the interconnection point. The interconnection point to be located on this property includes:

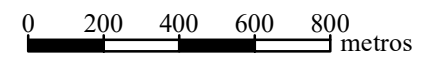
- Interconnection point: station with three switches anchored to foundations of concrete, which will occupy a footprint of approximately 300 feet by 300 feet, with two A-frame structures and a modular structure for voltage drop control. The interconnection will be through the 115 kV transmission line that runs east to west within the limits of the Municipality of Santa Isabel and which is property of PREPA. **Figure 2** shows the **Proposed Conceptual Design for the Project Components**.

The proposed Project is consistent with the objectives of the “Puerto Rico Energy Public Policy Law” (Law No. 17 of April 11, 2019) since it provides an alternative energy source for PREPA. In turn, it contributes to reducing dependence on fossil fuels for energy generation, reducing emissions of primary pollutants and greenhouse gases, strengthening our fragile and obsolete electrical infrastructure, promotes diverse and renewable energy sources, and distributing electricity energy production in an orderly manner. This Solar Photovoltaic Project adds important energy generation infrastructure to the sector and it embraces the new PREPA Integrated Plan, whose purpose is to promote renewable energy projects, under PREPA’s Integrated Resource Plan (PIR).

This document constitutes the Terrestrial Flora and Fauna Study, as part of the supplementary studies to the environmental document that will be prepared for the proposed project. The purpose of this study is to evaluate and describe the general flora and fauna of the proposed project sites, the different existing ecological associations, determine the presence of critical, threatened or endangered species in the project area and recommend measures to reduce or eliminate the possible impacts of the project on these resources.



Escala: 1:20,000



X: 205,550.865 m
Y: 224,427.811 m

- Punto de Interconexión
Línea de 115 mil voltios
- Línea de Interconexión
- Predios de Terreno para el Proyecto*
- Carreteras estatales¹
- Límite municipal²
- Límite de barrio²

*Límite aproximado

- Fuentes:
1. Autoridad de Carreteras y Transportación (ACT), 2020.
 2. Junta de Planificación de Puerto Rico (JPPR), 2015.
 3. Créditos de la capa de servicio:
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Sistema de Coordenadas:
Coordenadas Planas NAD83 (2011)
Puerto Rico e Islas Virgenes FIPS
5200 (metros)

CONVERGENT

CSAGROUP
EST. 1986

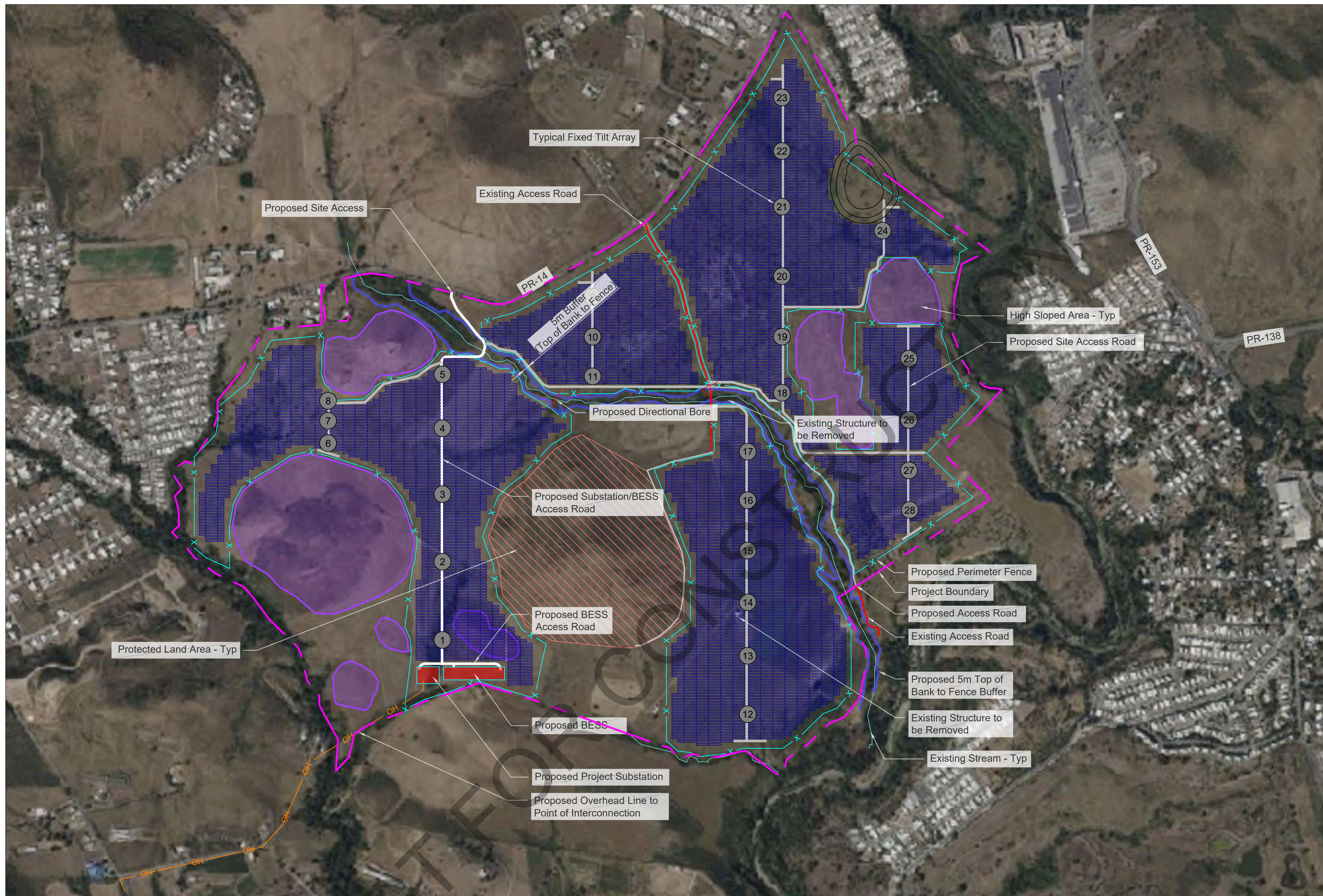


Figure 1.
Aerial Photo Showing the Project Area

Convergent Coamo PV-BESS
Coamo, Puerto Rico

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Figure 2 - Proposed Conceptual Design for the Project Components



Coamo Solar

Coamo, San Ildefonso, Puerto Rico

Owner/Developer:

Convergent Energy & Power

Project Site Description:

Latitude: 18.045700°
 Longitude: -86.377600°
 Elevation: 183 ft min - 836 ft max
 Total Site Area - Available: 738.72 ± Acres
 Total Buildable Area: 330.02 ± Acres
 Total Fenced Acres: 387.07 ± Acres
 Total Array Footprint: 367.71 ± Acres

Annual Cooling Design Temp: 88.3° F
 Extreme Annual Min DB MeanTemp: 70.1° F
 (ASHRAE 2017)

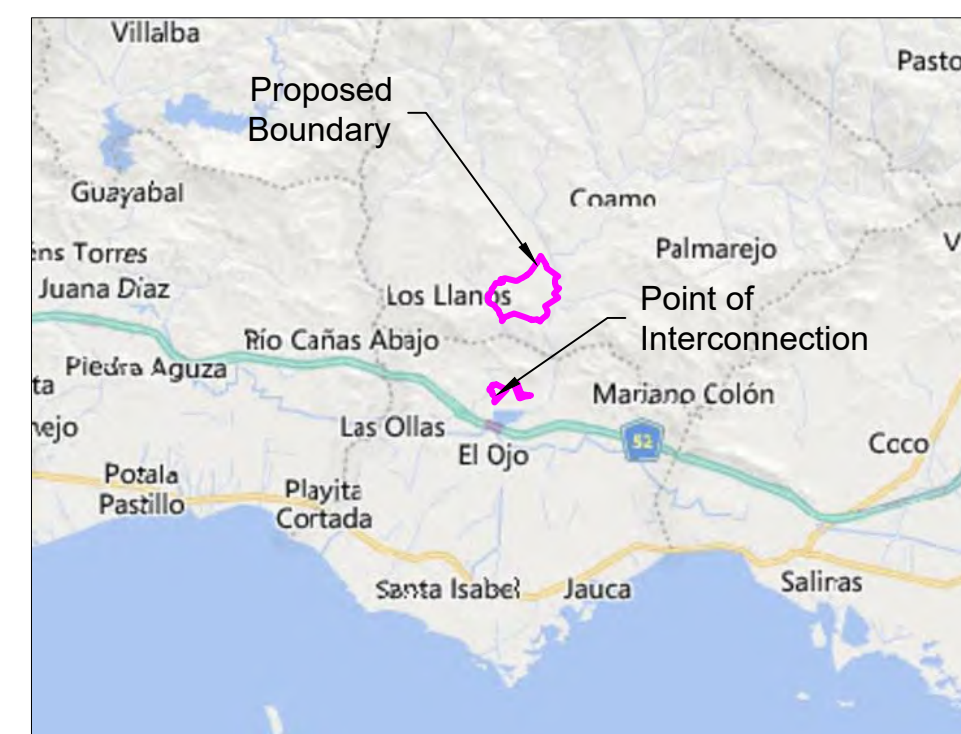
Wind Load: 148, Risk Category I
 Snow Load: 0psf
 Seismic Load: SS= 0.96g, S1= 0.36g

Interconnection Data:

Transmission Provider: TBD
 Interconnection Voltage: 115kV
 Offtaker: TBD
 Point of Interconnection: Existing 115kV Transmission Line,
 via 12,600' (LF) Gen-tie

Legend

- Property Line
- Underground AC Line
- Overhead AC Line
- Directional Bore
- Perimeter Fence
- Proposed Access Road
- Existing Overhead Line
- Wetlands
- 100-YR FEMA Flood Plain
- Protected Land Area - Approx.
- Keepout Area - Approx.
- High Slope Areas - Approx.



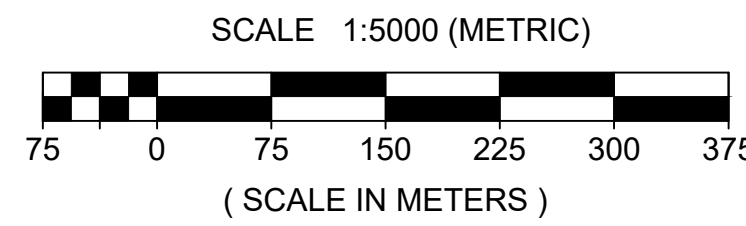
Key Map

Scale: 1:50000

Information used to prepare this drawing		
Item	Source	Date, Revision
Project Boundary	ALTA files provided by Javier E. Bidot Associates, PSC: "3778-ALTA.dwg"	11/10/2022
CUP/SUP	None	N/A
Constraints	None	N/A
Geotechnical Report	None	N/A
FEMA	Panel: 72000C1695H	4/19/2005
Topographic Survey	ALTA files provided by Javier E. Bidot Associates, PSC: "3778-ALTA.dwg"	10/27/2022
Hydrology	None	N/A
Wetlands	PDF provided by client: "22-001-CEP-210.A_Exclusion Zones Map.pdf"	4/29/2022
POI Location	KMZ File provided by Cleint: "Gen-Tie Path 1.kmz"	4/6/2023
Aerial Imagery	Bing Map	N/A
ASHRAE	http://ashrae-meteo.info/index.php	ASHRAE 2017
Wind Load Source	https://asce7hazardtool.online/	(ASCE7-16)
Snow Load Source	https://asce7hazardtool.online/	(ASCE7-16)
Seismic Load Source	https://asce7hazardtool.online/	(ASCE7-16)

Preliminary Site Plan

Scale: 1:5000



D:\DEPCOM Power Dev\CAD - PDE\Opportunities\Convergent Energy & Power\Coamo Solar\Site Plans\WIP\Active Drawings\Coamo Solar PSP-COA-5-F - 5/22/2023 9:31 AM

*Files are based on State Plane Coordinate System NAD83
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Coamo Solar
Coamo, San Ildefonso, Puerto Rico

TITLE:
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REV	DATE	REVISION DESCRIPTION	BY	CHK	APP
E	5-16-23	Added 5m Buffer	MP	DY	MP
D	5-10-23	Revised Perimeter Access Road	MP	DY	MP
C	5-10-23	Avoided Hacienda	MP	DY	MP
B	5-3-23	Added Section of Fixed Tilt	MP	DY	MP
A	4-14-23	Conceptual Design - 1500W Fixed Tilt	MP	DY	MP

DEPCOM JOB NUMBER: #####
 PROJECT CODE: COA
 PROJECT DIRECTOR: TBD
 PROJECT MANAGER: TBD
 SHEET TITLE:
Preliminary Site Plan
 CHECKED BY: MP
 DRAWN BY: MB
 SCALE: AS NOTED
 DRAWING NUMBER:
PSP-COA-5-F
 SHEET 1 OF 1

3. GENERAL DESCRIPTION OF THE AREA

In general terms, the location of the study area lays within the southern coastal valley. Much of the land in this valley has very fertile soils, which is why they are used for agricultural purposes.

The properties under evaluation for the development of the project include a main parcel of approximately 630 acres located between the Los Llanos and San Ildefonso Wards, and an extension of land of approximately 1.75 acres in the Jauca 2 Ward of the municipality of Santa Isabel. The latter, west of PR-545, is proposed for interconnection equipment with PREPA's 115 kV transmission line.

Currently, extensive portions of the proposed site are occupied by fast-growing grasses and shrubs, associated with abandoned agricultural activities. On the other hand, portions of land could be observed under agricultural production activities, presumably of an artisanal nature. In turn, hills and forested patches associated with ravines and ephemeral drainage channels are observed. These hills, although they are not part of the Project, have a land area totaling approximately 109 acres.

3.1 ECOLOGICAL LIVING ZONES

The project is located in one of the driest ecological zones in Puerto Rico (Ewel and Whitmore, 1973) and is classified as Subtropical Dry Forest. The annual precipitation in these ecosystems is between 600 and 1,100 mm, so the typical vegetation is considered xerophytic, that is, the plant species are usually deciduous (which lose their leaves during the dry season) with small or stunted trees of small, leathery or succulent leaves with an abundance of species armed with thorns. Ewel and Whitmore (1973) indicate that the most common species are the Almácigo (*Bursera simaruba*), the Bayahonda (*Prosopis juliflora*), the Guayacán (*Guaiacum officinale*), the Zarcilla (*Leucaena leucocephala*), the Tamarind (*Tamarindus indica*) and the Quenepo (*Meliococcus bijugatus*). In terms of diversity, dry forests have a greater diversity of organisms than wetter forests.

3.2 CLIMATOLOGY

The average annual temperature is 25.5°C (78°F); with a daily maximum of 31.6°C (89°F), while the minimum averages 18.8°C (66°F). Precipitation is abundant in the months of July to September, scarce between the months of August to November, and moderate between the months of June to December. Relative humidity averages 80%. According to data from the Coamo 2 SW station, the month with the highest rainfall record is November, with an average of rainfall of 3.5 inches, while February is typically the driest month with an average precipitation of 1.0 inches.

3.3 GEOLOGICAL DESCRIPTION, TOPOGRAPHY AND SOILS

Geology: Limestone is the geological component that underlies approximately twenty eight percent (28%) of the island of Puerto Rico. The geology of the municipality of Coamo, in eighty-five percent (85%) of its lands, corresponds to the Ponce-type limestone formations, from the Miocene and Oligocene era of the Tertiary period. Ten percent (10%) of its territory are plutonic rocks that date from the Tertiary Cretaceous period and five percent (5%) are identified on the margins of the Coamo River, with deposits from the Quaternary period. Please refer to **Figure 3. Geology of the Study Area.**

Approximately ninety percent (90%) of the geology of the terrain under evaluation is classified as **Kcot** (pyroxene andesite and basalt), part of the Coamo Formation. Five percent (5%) is classified as **Kmas** (tuff and tuffaceous shale), part of the Maravilla Formation, and the remaining five percent (5%) is classified as **Qc** Colluvium, according to the United States Geological Survey (USGS).

The southern parcel, which will be used for the interconnection equipment, is classified as **fragmented rock B** (breccias) under the Río Descalabrado Formation.

The USGS describes the geology of the aforementioned terrains as follows:

Kcot (Coamo Formation) - Massive limestone, local basal conglomerate with lava clasts of the underlying Lajas Formation. Maximum apparent thickness, 75m. Exposed in the Puerto Real and San Germán quadrilaterals. Dark gray to reddish colors and predominant greenish black. Thick-bedded to thick-bedded pyroxene-andesite tuff breccia and tuff.

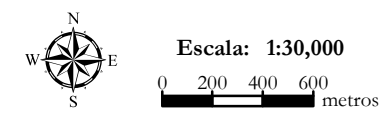
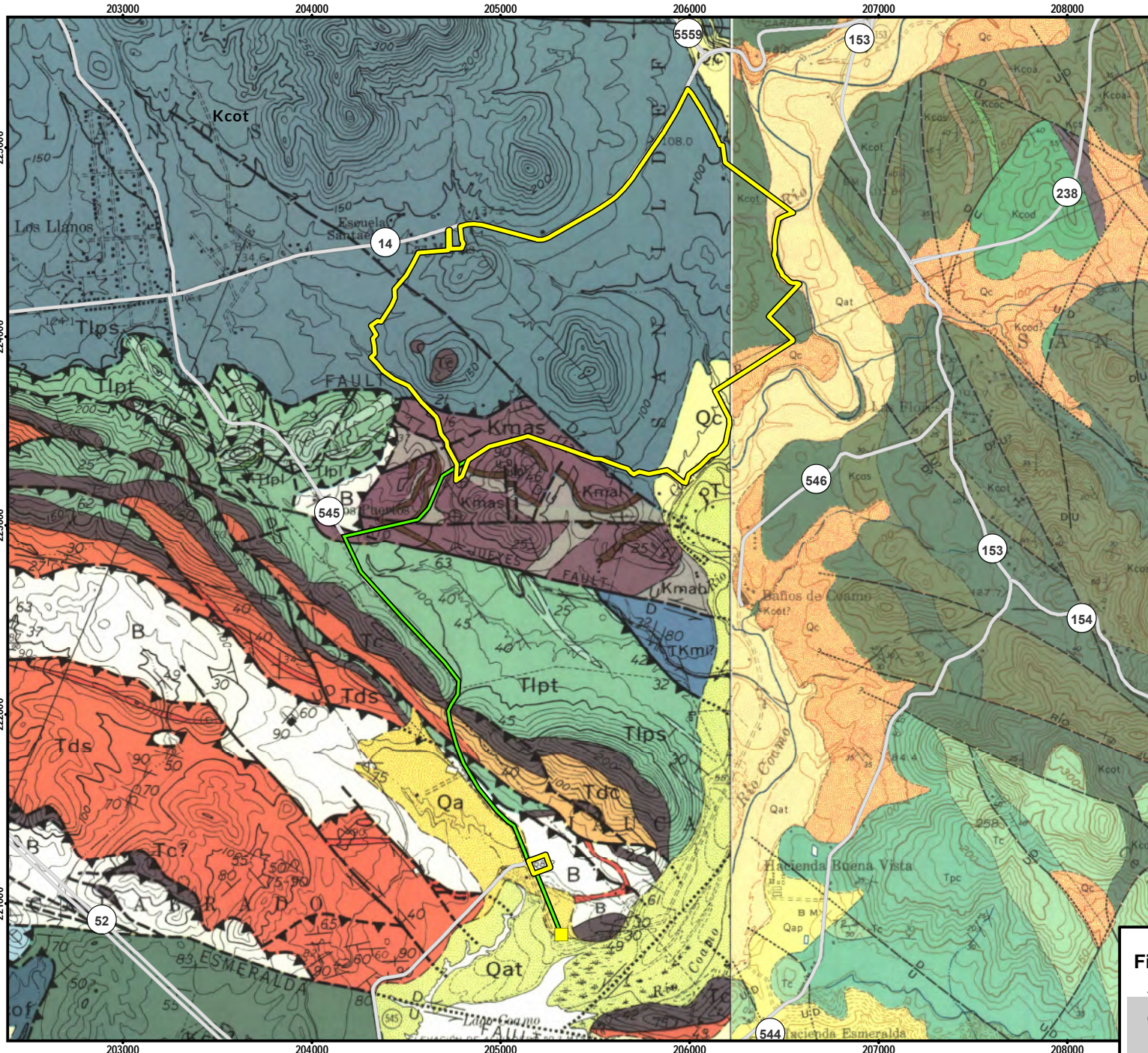
Qc (Colluvium) - Group belonging to surface colluvium deposits.

Kmas (Maravilla Formation) - Tuffaceous sandstone, siltstone, volcanic breccia, limestone, and limestone conglomerate. Conglomerate of calcarenite and limestone interspersed irregularly. The maximum thickness is estimated at about 1,100 m.

B (Breccia)—geologic formation consists primarily of fragmented rock and mineral that forms from movement and recurring friction along the fault. It contains fragments of all units of the Río Descalabrado Formation, the Coamo Formation and possibly contains fragments as old as those of the Robles Formation.

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- Punto de Interconexión Línea de 115 mil voltios
 - Línea de Interconexión
 - Predios de Terreno para el Proyecto*
 - Área dentro del predio del Proyecto que no será ocupada
 - Carreteras estatales¹
- Geología^{2,3}**
 Qa - Aluvión
 Qat - Terrazas aluviales
 Qc - Coluvión
 Tc - Formación Cuevas
 Tds, Tdc - Formación Río Descalabrado
 Tlpt, Tlps, Tlpl - Formación Los Puertos
 Kcot, Kcof - Formación Coamo
 Kmab, Kmas, Kmal - Formación Maravillas

Fuentes:
 1. Autoridad de Carreteras y Transportación (ACT), 2020.
 2. Glover, Lynn and Mattson, P.H., 1973, Geologic map of the Río Descalabrado quadrangle, Puerto Rico: U.S. Geological Survey, Miscellaneous Geologic Investigations Map I-735, scale 1:20000.
 3. Glover, Lynn, 1961, Preliminary report on the geology of the Coamo quadrangle, Puerto Rico: U.S. Geological Survey, Miscellaneous Geologic Investigations Map I-335, scale 1:20000.

Sistema de Coordenadas:
 Coordenadas Planas NAD83 (2011) Puerto Rico e Islas Virgenes FIP 5200 (metros)



Figure 3. Geology of the Study Area
 Convergent Coamo PV-BESS
 Coamo, Puerto Rico

Topography: Coamo is located in the southern region of the mountain ranges of the Cordillera Central and Sierra de Cayey in the Semiarid Valleys of the South. To the north it borders the Central Mountain Range that corresponds to the municipalities of Barranquitas and Orocovis; to the south with the municipality of Santa Isabel, to the west with the municipalities of Juana Díaz and Villalba and to the east with the municipalities of Aibonito and Salinas. This mountainous area extends from east to west in south-central Puerto Rico, and contains the highest peaks on the island (the highest is Cerro Punta at 4,389 feet). The town of Coamo lies in south central Puerto Rico at latitude 18°5'N, longitude 66°21'W approximately 3.2 km northeast of the proposed project.

The territorial extension of Coamo is 202.8 square km equivalent to 78 square miles, which represents 13.1% of the Southern Region and 2.3% of Puerto Rico. With approximate elevations of up to 3,000 feet above sea level.

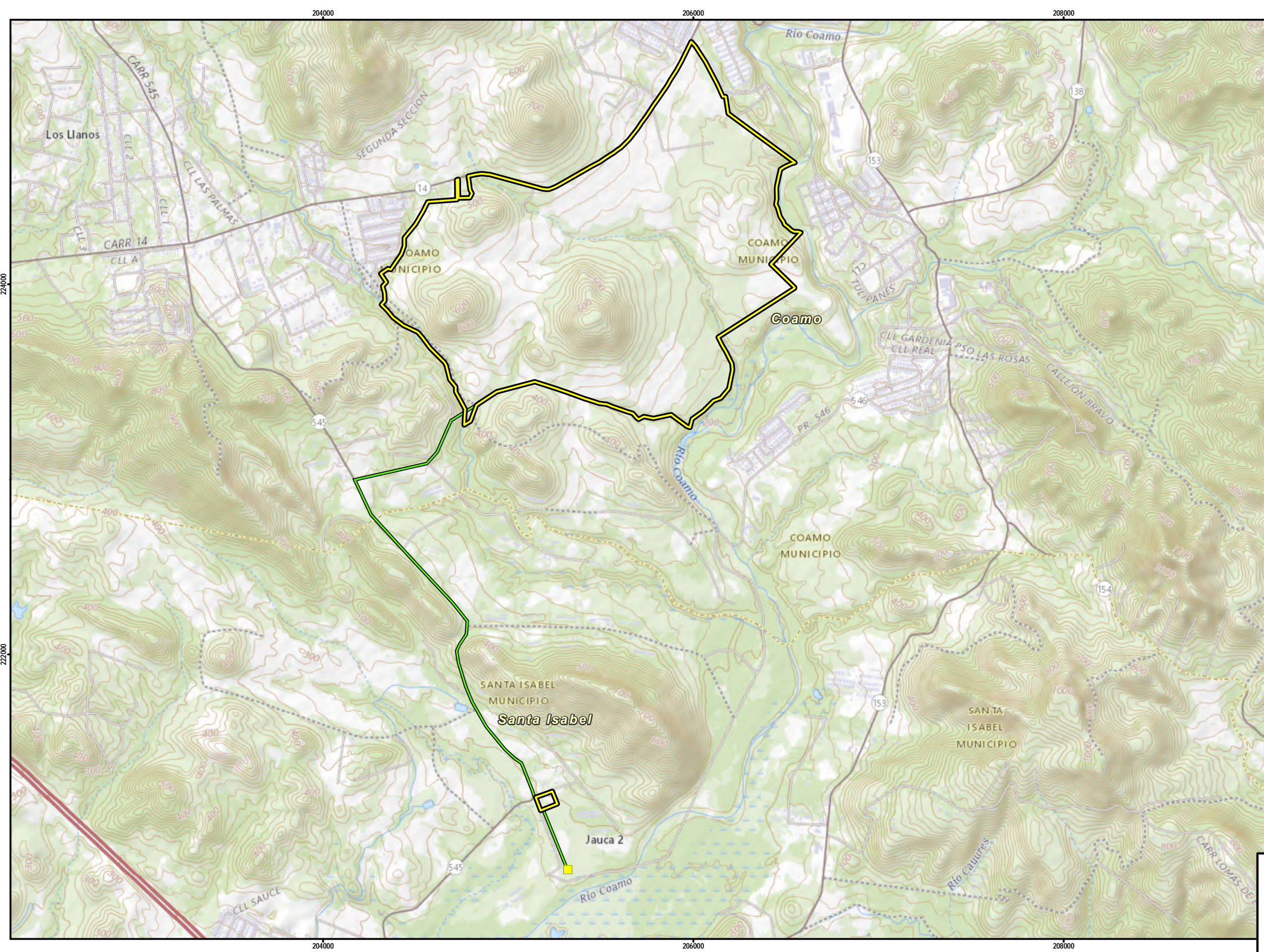
The elevations of the study area fluctuate between 80 meters above sea level in the low places to 180 meters in the highest ones. Access to the properties is achieved through State Highway PR-545 and through PR-14. Please refer to **Figure 4. Topographic Map of the Study Area.**

Soils: The municipality of Coamo is located in the geomorphological region known as the Southern Coastal Plains Province. This corresponds to alluvial soils in the arid and semi-arid parts. They are dark soils, of medium depth and fertile.

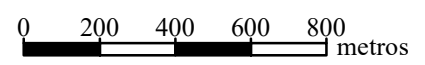
The soils of the municipality of Coamo can be grouped into three main categories, according to the Natural Resources Conservation Service of the Department of Agriculture (NRCS). These are: Humatas-Maricao-Guineos, Caguabo-Múcara-Quebrada and Callabo association. The type of soils in the area under evaluation corresponds mostly to Callabo, Cuyón and Llanos. These are mostly identified as soils containing silt and clay according to the Soil Conservation Service. The US Department of Agriculture (2022) describes the soils present in the Project area (Please refer to **Figure 5. USDA-NRCS Soil Map and Classification**), as presented below:

CoD - Lomic clay silty callabo, twelve percent (12%) to twenty percent (20%) slopes – Soil moderately deep to volcanic rock, well drained, slightly acidic to neutral and moderately fine texture. The permeability is moderate and the water retention capacity is low. The organic matter content is high on the surface. Runoff is moderate to very rapid. They are moderately rocky and fertile soils. The depth to semi-consolidated rock varies from 20 to 36 inches.

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Escala: 1:20,000



X: 205,550.865 m
Y: 224,427.811 m

- Punto de Interconexión
- Línea de Interconexión
- Predios de Terreno para el Proyecto*

*Límite aproximado

Fuente:
1. Mapa topográfico del Servicio Geológico de los Estados Unidos, Cuadrángulos de Río Descalabrado y Coamo, 2018. El intervalo de los contornos de elevación es de 20 pies. USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed June, 2022.

Sistema de Coordenadas:
Coordenadas Planas NAD83 (2011) Puerto Rico e Islas Vírgenes FIPS 5200 (metros)



Figure 4.
Topographic Map of the Study Area

Convergent Coamo PV-BESS
Coamo, Puerto Rico

CoE - Lomic clay silty callabo, twenty percent (20%) to forty percent (40%) slopes – Soil moderately deep to volcanic rock, well drained, slightly acidic to neutral and moderately fine texture. The permeability is moderate and the water retention capacity is low. The organic matter content is high on the surface. Runoff is moderate to very rapid. They are moderately rocky and fertile soils. The depth to semi-consolidated rock varies from 20 to 36 inches.

CoF2 - Callabo silty lomic clay, slopes of forty percent (40%) to sixty percent (60%) inclination, eroded – Soil moderately deep to volcanic rock, well drained, slightly acidic to neutral and moderately fine in texture. The permeability is moderate and the water retention capacity is low. They are very cliffy, with very rapid runoff and danger of erosion. The depth to semi-consolidated rock varies from 20 to 36 inches.

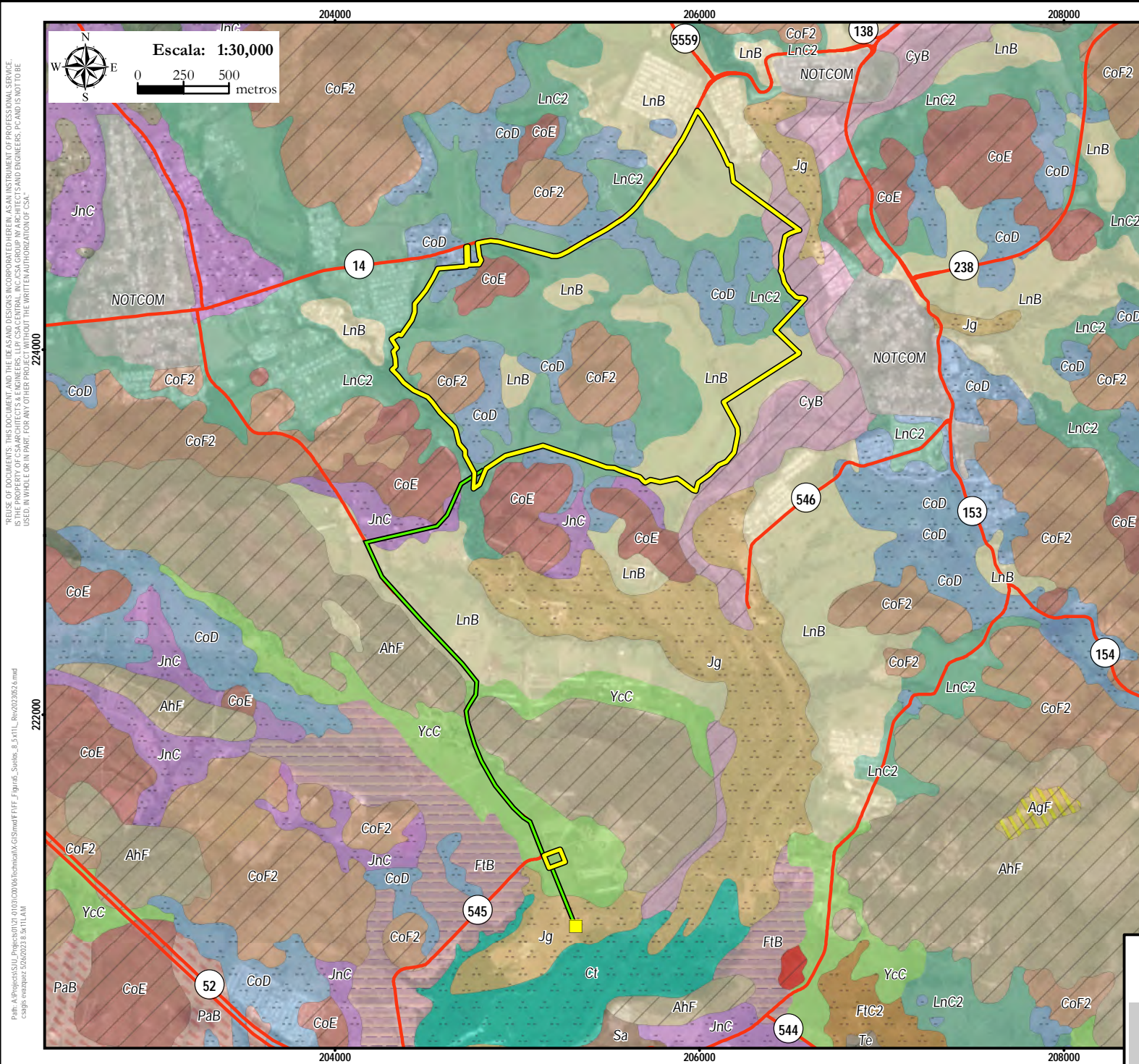
FtB - Loamy fraternity, two percent (2%) to one hundred percent (5%) slopes – Deep, moderately well-drained, neutral to mildly alkaline soils, fine texture, slow permeability, slow runoff and capacity water retention is high. Gently sloped and without erosion. Natural fertility is high. These soils are very difficult to work.

LnB - Loamy plains, two percent (2%) to one percent (5%) slope - Deep, well-drained, neutral to mildly alkaline, fine-textured soil, moderately slow permeability, high water-holding capacity, fertile and difficult to work with. They are gently sloping and without erosion. The organic matter content is high. The runoff is slow.

LnC2 - Clay flats, five percent (5%) to twelve percent (12%) slope, eroded – Deep, well-drained, neutral to mildly alkaline soil, fine texture, moderately slow permeability, high water holding capacity , fertile and difficult to work. The organic matter content is high. They are steeply sloped and susceptible to erosion. Runoff is moderate.

YcC - Yauco lomic clay silt, five percent (5%) to twelve percent (12%) slope. Deep, well-drained, limestone soils, moderately fine texture, moderate permeability, low to moderate water retention capacity, steeply inclined with some erosion. Soft limestone appears at 20 to 30 inches. Runoff is medium.

The properties proposed for the Project include land classified as state significant agricultural land and prime farmland if irrigated, according to USDA-NRCS. They constitute the lands that have the best combination of physical and chemical characteristics for the production of food, animal feed, fodder, fiber and oilseed crops.



- Punto de Interconexión Línea de 115 mil voltios
- Línea de Interconexión
- Predios de Terreno para el Proyecto*
- Carreteras estatales¹

- Suelos²**
- AgD: Aguilta cascajoso arcilloso lómico
 - AgF: Aguilta cascajoso arcilloso lómico
 - AhF: Aguilta rocoso arcilloso lómico
 - CoD: Callabo limoso arcilloso lómico
 - CoE: Callabo limoso arcilloso lómico
 - CoF2: Callabo limoso arcilloso lómico
 - Ct: Constancia limoso arcilloso
 - CyB: Cuyón lómico
 - FtB: Fraternidad arcilloso
 - FtC2: Fraternidad arcilloso
 - Jg: Jacaguas limoso arcilloso lómico
 - JnC: Jácana arcilloso
 - LnB: Llanos arcilloso
 - LnC2: Llanos arcilloso
 - PaB: Palmarejo lómico
 - Sa: San Anton arcilloso lómico
 - Te: Teresa arcilloso
 - YcC: Yauco limoso arcilloso lómico
 - NOTCOM: No hay datos digitales disponibles

- Clasificación USDA-NRCS²**
- Terreno agrícola de importancia estatal
 - No es un terreno agrícola primordial

*Límite aproximado
 Fuentes:
 1. Autoridad de Carreteras y Transportación (ACT), 2020.
 2. Departamento de Agricultura de los Estados Unidos, Servicio de Conservación de los Recursos Naturales, base de datos del Inventario Geográfico de Suelos (SSURGO en inglés), 2015.
 3. Créditos de la capa de servicio: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Figure 5. USDA-NRCS Soil Map and Classification

**Convergent Coamo PV-BESS
 Coamo, Puerto Rico**

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3.4 HYDROLOGY AND WETLANDS

In terms of hydrography, the Coamo River is identified bordering the northeast, east and south portion of the property under study. The US Fish and Wildlife Service (USFWS) National Wetland Inventory classifies this water body as Riverine Perennial-Unknown with Unconsolidated Bottom, Permanently Flooded (*R5UBH*) to the northeast; and as one Rivereño Lower Perennial Unconsolidated Permanently Flooded Fund (*R2UBH*) by bordering the property along portions of the east to south limits. See **Figure 6. Hydrology and Wetlands**.

Within the limits of the study area, an unnamed intermittent stream is observed that crosses the property from the northern limit to the southeastern limit, draining towards the Coamo River. The USFWS classifies this stream as an Intermittent River System Channel (*R4SBC*).

Another system classified as *R5UBH* is the designation of the stream adjacent to the southwest limit of the main parcel. This will be crossed by the overhead transmission line that will leave the main plot to the interconnection point.

On the plot that will be used for the interconnection point in the Jauca 2 Ward, an unnamed stream is identified bordering the northwest portion of its limits. This body of water is classified as an Unknown-Perennial River System with Unconsolidated Bottom, Permanently Flooded (*R5UBH*).

At the limits of the main property and interconnection point, the USFWS identifies two areas classified as a Palustrine Flooded Temporary Broadleaf Evergreen Forest (*PFO3A*) system. The first is the designation of freshwater forested/shrub wetland adjacent to the main parcel associated with the Coamo River. Instead, the second designation is awarded to the freshwater forested/shrub wetland adjacent to the Coamo Reservoir, located at the following approximate distances from the interconnection point: 340 m (1,115 feet) to the southwest and 440 m (1,443.57 feet) to the northeast.

About 40 m (131 ft) to the east, across the PR-545 easement where the interconnection point is located, the USFWS classifies as a Persistently Emerging Seasonally Flooded Palustrine System (*PEM1C*) the emergent fresh water wetland adjacent to the Coamo Reservoir.

The USFWS National Wetland Inventory identifies all of the aforementioned water bodies in its inventory. Along the entire eastern portion of the project runs the Santa Isabel-Coamo aquifer. This aquifer occupies an area of 19.3 square miles, with section thicknesses of up to 3,000 feet and instantaneous well withdrawal capacities of up to 2,000 gallons per minute.

3.5 NATURAL SYSTEMS IN THE REGION

The area is located at the transition between the southern coastal plain and the mountainous area of the municipality of Coamo, on land that has previously been used for agricultural purposes. The main parcel where the installation of the solar panels is proposed is home to hills and patches of riparian forest associated with streams and drainage. In turn, the areas of highest elevation (hills) are concentrated in the western and central portions of the property. As mentioned above, these hills will remain in their natural character, since no components of the Project will be included within their extension.

The design of the proposed project, in terms of the location of the solar panels, contemplates the conservation of the riparian forest patches. An electrical interconnection line will cross aerially over a segment of the unnamed perennial stream that borders the property to the west. **Figure 7** shows the ***Natural Systems in a Radius of 400 meters from the Property Perimeter.***

The closest natural system to the property is the Coamo River, whose course is located about 50 meters from the perimeter designed for the project. To the northwest, approximately 700 meters from the delimitation of the main parcel, is the Los Llanos Protected Natural Area.

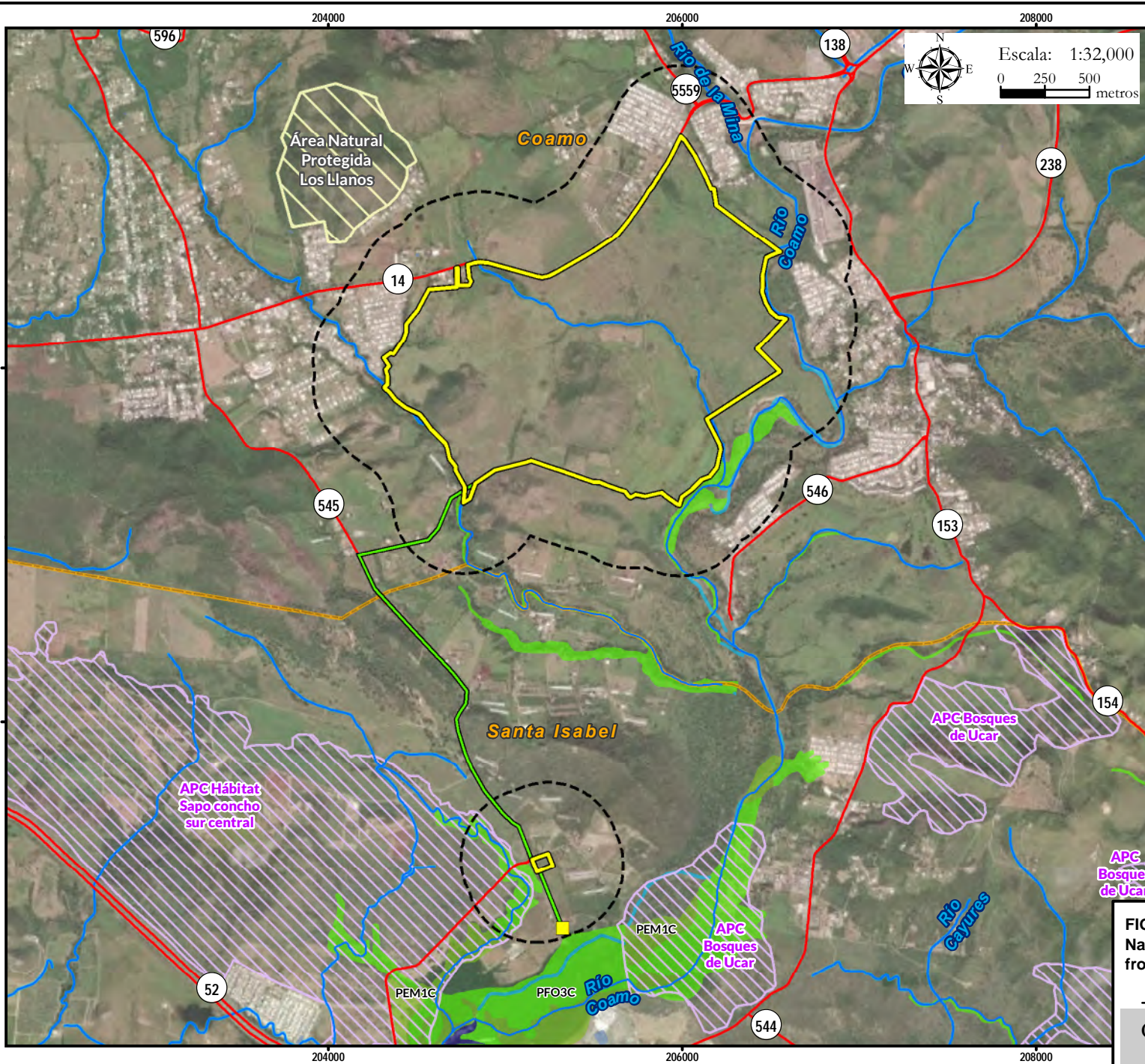
However, within a radius of 400 meters from the perimeter of the Project there are 11 wells (9 for drinking water and 2 for irrigation). Of these, 1 irrigation well and 2 drinking water wells are located within the project. The second irrigation well is located on the southern edge of the property, but this is outside the study area.

The Santa Isabel-Coamo Aquifer runs along the entire eastern edge of the project. This aquifer occupies an area of 19.3 square miles, with section thicknesses of up to 3,000 feet and instantaneous well withdrawal capacities of up to 2,000 gallons per minute.

The property proposed as an interconnection point is located at an approximate distance of 58 meters from the delimitation of the Conservation Priority Area (APC) for the south-central Concho Toad established by the Department of Natural and Environmental Resources (DRNA). **Figure 7** includes a radius of 400 meters from the center of the property showing the limits of the APC.

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- Punto de Interconexión Línea de 115 mil voltios
- Línea de Interconexión
- Predios de Terreno para el Proyecto*
- Carreteras estatales¹
- Hidrografía²
- Radio de 400 metros
- Área Natural Protegida³
- Área con Prioridad de Conservación⁴
- Límite municipal⁶
- Humedales⁵**
 - Emergente de agua dulce
 - Arbóreo de agua dulce (Palustrino)
 - Estanque de agua dulce
 - Lago
 - Ribereño

*Límite aproximado

Fuentes:

1. Autoridad de Carreteras y Transportación (ACT), 2020.
2. Servicio Geológico de los Estados Unidos, Conjunto de Datos de Hidrografía Nacional (NHD, por sus siglas en inglés), 2020.
3. Caribbean Landscape Conservation Cooperative, Areas Naturales Protegidas de Puerto Rico (diciembre de 2016).
4. Departamento de Recursos Naturales y Ambientales de P.R. (DRNA), 2009.
5. Inventario Nacional de Humedales, Servicio de Pesca y Vida Silvestre de los Estados Unidos (USFWS, por sus siglas en inglés), 2020.
6. Junta de Planificación de Puerto Rico (JPPR), 2015.
7. Créditos de la capa de servicio: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Sistema de Coordenadas: Coordenadas Planas NAD83 (2011) Puerto Rico e Islas Vírgenes FIPS 5200 (metros)

FIGURE 7.
Natural Systems in a Radius of 400 meters from the Property Perimeter

Convergent Coamo PV-BESS
 Coamo, Puerto Rico

4. LITERATURE REVIEW AND CONSULTATION ON PROTECTED AREAS

Prior to carrying out the flora and fauna study, a review of the available scientific literature on prior studies conducted in the project area was carried out. The United States Fish and Wildlife Service (USFWS) Data Bank through its IPaC¹ tool includes all species protected by state and federal laws, in addition to other species whose populations are low or that are indicative of specific habitats. According to the information collected for this property, the tool identified five species classified as endangered or threatened for the area. **Table 1** presents the species that could be identified associated with the area under study.

Table 1. Threatened and Endangered Species

Scientific Name	Common Name	Status
<i>Goetzea elegans</i>	Beautiful goetzea (Mata-buey)	Endangered
<i>Eugenia woodburyana</i>	Woodbury's stopper	Endangered
<i>Peltophryne lemur</i>	Puerto Rican crested toad (Sapo concho)	Threatened
<i>Epicrates inornatus</i>	Puerto Rican boa (Boa de Puerto Rico)	Endangered (*)
<i>Caprimulgus noctitherus</i>	Puerto Rican nightjar (Guabairo de Puerto Rico)	Endangered
(*) Delisting proposed on 07/13/2022 (87 FR 41641 41655) ²		

Appendix 2 presents the Endangered and Threatened Species List (IPaC) that was generated as part of the preliminary consultation process under the federal Endangered Species Act (ESA). Below is a brief description of these species.

***Goetzea elegans* (Beautiful goetzea)**



Small, evergreen tree that reaches 30 feet tall and a trunk diameter of just over five inches. It has glossy elliptical leaves up to four inches long and up to two inches wide, growing in arrangement alternate along the branches. Solitary colored flowers funnel-shaped orange, almost an inch long. It blooms all year round, with highest blooms in February and March, until August. Its fruits are berries in Pear-shaped, orange in color and with a velvety texture. Produces fruit from April to August.

¹ U.S. Fish and Wildlife Service Information and Planning Consultation (IPaC) <https://ipac.ecosphere.fws.gov/>

² ECOS Environmental Conservation Online System (USFWS). <https://ecos.fws.gov/ecp/species/6628>

***Eugenia woodburyana* (Woodbury's stopper)**



Evergreen tree that reaches a height of approximately 20 feet. Plush, obovate-shaped leaves that grow opposite on the stem, and have a very short petiole. The inflorescences produce two to five flowers with white petals and stamens. Round fruit, 3/4 inch in diameter, reddish-orange when ripe. Is endemic to the subtropical dry forest of southern and southwestern Puerto Rico, from the municipalities of Cabo Rojo to Salinas.

***Peltophryne lemur* (Puerto Rican crested toad)**



Medium-sized toad measuring between two to 4.5 inches. Its color varies from olive-brown to dark brown. They are easily distinguished by their prominent crests above their eyes and their long, curved nose. Adults usually remain hidden in the crevices of limestone formations. They only reproduce when heavy rain falls and form large ponds in which they are able to lay their eggs.

***Epicrates inornatus* (Puerto Rican boa)**



Constrictor snake whose color can vary between shades of pale or dark brown, gray or black. Its belly is blackish in color and can grow to approximately 6.2 feet in length. They are characterized by having a series of black spots or lines along the dorsal part. They have structures known as “spurs”, remnants of hind limbs, Located near the cloacal opening. It feeds on small mammals such as rodents and bats, birds and lizards.

***Caprimulgus noctitherus* (Puerto Rican nightjar)**



A nocturnal bird that reaches a size of around nine inches. Its plumage has chocolate, reddish and black spots. Around its mouth it has hairs like long whiskers that it uses to capture its prey (insects). Its nocturnal song is very variable. The guabairo does not build a nest, so it deposits its eggs directly in the leaf litter on the ground. The nesting occurs from February to July and both the male and female incubate the eggs and feed the young.

5. STUDY METHODOLOGY

This section describes the procedures used to carry out the flora and fauna study and the selection criteria for the study areas. The study was carried out in accordance with the procedures established by the Puerto Rico Department of Natural and Environmental Resources (DRNA) and the United States Fish and Wildlife Service (USFWS).

5.1 FIELD WORK

The field work began with an initial reconnaissance visit on February 18, 2022, with the objective of validating the information collected from topographic maps, aerial photos, soils, wetlands, as well as to identify the limits of the proposed project. This information was analyzed together, allowing for a better understanding of the current conditions of the property, and thus establishing the methodology to obtain the necessary data on the flora and fauna of the place. Other sources of information were reviewed, including the Environmental Sensitivity Index (NOAA) (2000), the Study of Critical Wildlife Areas of Puerto Rico (CWA) (DRNA 2005) and the PR-GAP Project (2007) among others.

For the purposes of this study, the extent of the proposed plots was identified as presented in the table below.

Table 2. Identification, Acreage and Location of the Plots

Parcel ID	Acres	Coordinates
Main Parcel	630 acres ^(*)	18° 2' 40.77"N, 66°23'16.44" W
Polygon 1 (Interconnection Point)	1.75 acres	18°01'29.00"N, 66°23'02.71"W

* Of the entire acreage of this parcel, the project design would only use approximately 375 acres for component installation.

Methodology:

The selection of sampling areas was carried out using aerial photographs and topographic maps as a reference. The analysis of the photographs and maps made it possible to identify, prior to field work, landscape elements such as: proximity to drainages, hills, cultivated areas, and different vegetative associations. The location of the linear transects took into consideration the topography of the terrain and the characteristics of the landscape.

Main parcel: A total of thirteen (13) transects with dimensions of 50 m x 2 m were established throughout the extension of this property, in which the flora and fauna were identified. In turn, observations were made at different points of the plot, both in the agricultural areas and in the areas associated with the streams/drains in order to describe the forested areas in detail.

Polygon 1 (Interconnection Point): A total of two (2) transects with dimensions of 50 m x 2 m were established throughout the extension of this property, in which the flora and fauna were identified. In turn, observations were made at different points in order to describe the forested areas in detail.

Transmission line along the PR-545 highway easement: Observations were made at different observation points for the identification of flora and fauna along the PR-545 highway.

The location in the field was corroborated using geographic positioning equipment. To delimit the dimensions of each linear observation, transect, measuring tape and flags were used for reference.

The identification of the birds was carried out through transects, observation points, as well as tours throughout the property. The species observed and identified aurally were recorded.

In the case of amphibians and reptiles, searches were carried out in areas that could be appropriate habitats for these species, such as under dry trunks and branches, crevices in rocks, in the ground and in humid areas. The vegetation was also reviewed, both trees and grasses that tend to be habitats for many of the fauna. The searches in the study area were carried out during the day and night periods according to the methodology presented by Rivero (1998). On the proposed property, a search was carried out for species considered critical elements by the DNER and the USFWS. Its purpose was to determine the presence of these species and accurately identify their location, if any, with reference to the project. During the visits, the areas and species of flora and fauna observed on the properties were documented with photographs (Appendix 1).

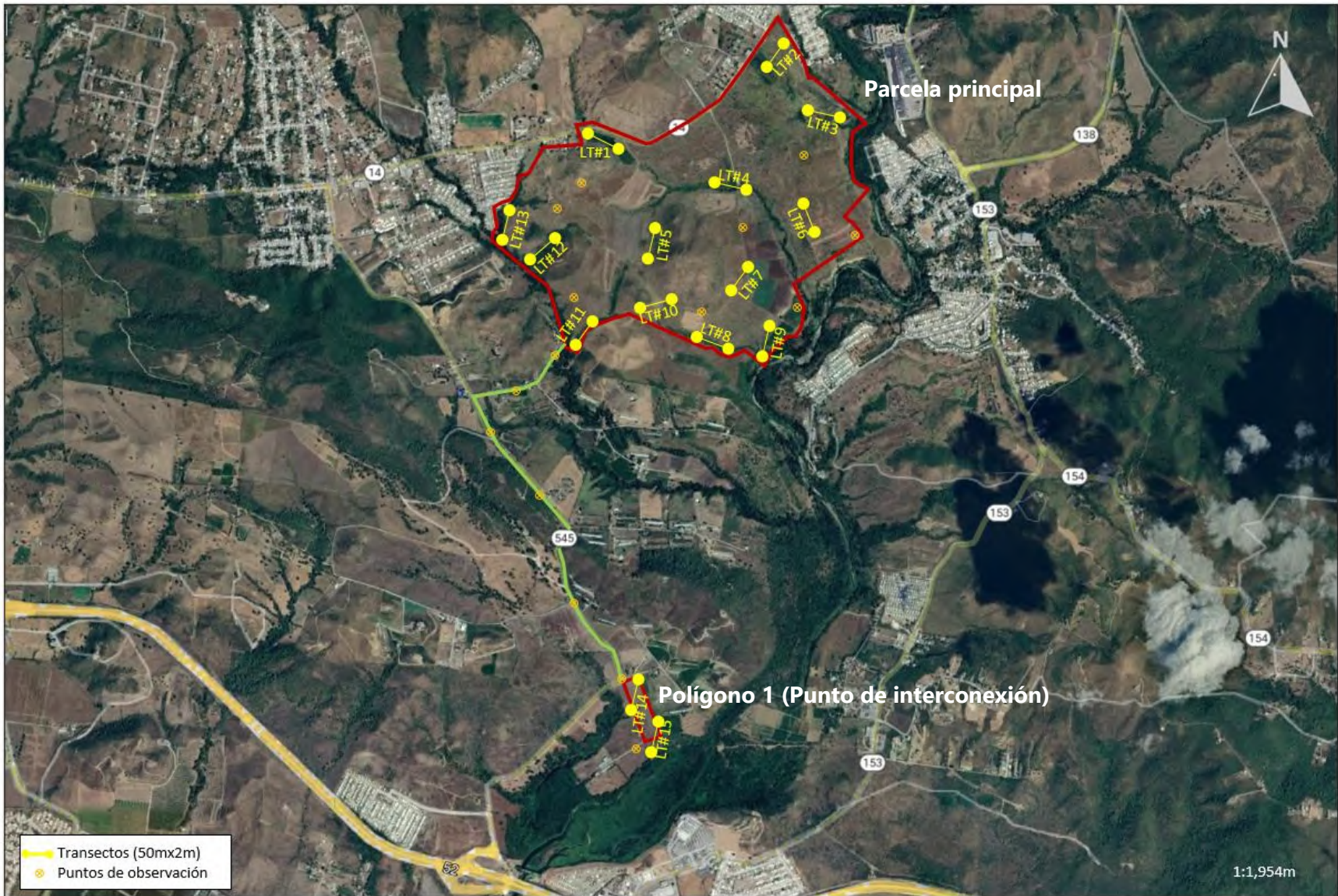
The field work within the areas contemplated by the Proposed Action was carried out during the months of April, May and August 2022. As a result of the field work, a list of the flora and fauna species present in the area under study was produced.

5.2 ANALYSIS OF DATA

The identification of species was carried out mainly during the period of visits to the proposed properties. The species that could not be recorded during the visits were photographed and/or collected and then identified using the available references.

The review of plants and animals was corroborated using reference books and field guides, such as Little, Woodbury and Wadsworth (1974), Liogier (1985; 1988; 1991; 1995; 1997), Acevedo- Rodríguez and Woodbury (1985), Proctor (1989), Más and García-Molinari (2006), Raffaele et al. (1998), Rivero (1998), Little and Wadsworth (1999) and Acevedo-Rodríguez (2003), Acevedo-Rodríguez and Strong (2005), Acevedo-Rodríguez (1996) and Gann GD, Trejo-Torres JC (2015-2023).

Figure 8. Distribution of Identification Transects and Flora and Fauna Observation Points across the Main Plot and Polygon 1



6. RESULTS

6.1 FLORA

In the area proposed for the project (main parcel, polygon 1 and transmission line route) three hundred and twenty-four (324) plant species corresponding to seventy-four (74) families were identified. The land proposed for the installation of solar panels consists mostly of abandoned or dormant agricultural land. However, in portions to the southeast some lands under active agricultural use could be observed. Strips of riparian forest are also observed associated with an unnamed intermittent stream, and with a natural drainage basin that connects to the Coamo River. The vegetation associations identified on the properties are described below.

Land previously used for agriculture

This vegetative composition is characteristic of properties that have been under agricultural use, however, are at rest or these activities have been abandoned. This association is represented in approximately (77.3%) of all land proposed. Currently, portions extensive areas of land are occupied through grasses and fast-growing bushes growth like Zarcilla (*Leucaena leucocephala*), Acacia (*Albizia procera*), American guamá (*Pithecellobium dulce*),



Red escambron (*Pithecellobium unguis-cati*). These shrubs begin to establish themselves, effectively competing with herbaceous species. Other shrubs that are identified in these areas are Samán (*Samanea saman*), Aroma (*Vachellia farnesiana*), Silk Cotton (*Calotropis procera*), Capulín (*Muntingia calabura*), Tua-túa (*Jatropha gossypifolia*) and shrubs of the *Lantana* genus.

Among the herbaceous plants that cover these areas are *Arivela viscosa*, malvaceae of the genera *Bastardia*, *Sida*, *Malvastrum*, *Sidastrum* and *Malachra*, and grasses of the genera *Echinochloa*, *Digitaria*, *Bothriochloa*, *Urochloa* and several of the Cyperaceae family.

The land proposed for the installation of the switch yard and interconnection point (Polygon 1) is mostly dedicated to recreational use for riding and grazing horses. In this area, grasses of the *Urochloa* genus, weeds of the *Amaranthus* genus, Cardosanto bushes (*Argemone mexicana*) and several species of trees such as Cayeput Balsam

(*Melaleuca quinquenervia*), Bottle Brush (*Calistemon citrinus*), Carambola (*Averrhoa carambola*) and American guama (*Pithecellobium dulce*).

A small portion to the southeast of the main parcel consists of land under active agricultural use, with crops that include fields of Pumpkin (*Cucurbita moschata*), Melon (*Cucumis melo*), Banana (*Musa acuminata x balbisiana*), among others. Other species such as Mango (*Mangifera indica*), Cotton (*Gossypium hirsutum*), Neem (*Azadirachta indica*) and Lemon (*Citrus aurantifolia*) were identified growing scattered across the fields.

Table 3. Active Crops on Property within the Delimitation of the Proposed Area

Scientific Name	Common Name
<i>Cucurbita moschata</i>	Butternut squash (Calabaza)
<i>Cucumis melo</i>	Cantaloupe (Melón)
<i>Musa x paradisiaca</i>	Banana (Guineo)
<i>Musa acuminata x balbisiana</i>	Plantains (Plátano)
<i>Cajanus cajan</i>	Pigeon pea (Gandúl)
<i>Solanum melongena</i>	Eggplant (Berenjena)

It should be noted that, in some portions of the proposed property, particularly to the northwest and central west, they are in use for growing and collecting hay. Through these areas of land, you can see the Marvel grass or Yerba de las traviesas in Spanish (*Dichanthium annulatum*), a naturalized species whose use is mainly for grazing and haymaking.

Strips of riparian forest

Within the limits where it is contemplated the proposed action runs through a ravine unnamed intermittent. It is broken crosses the property from the limits to the northwest, to the southeast limits draining into the Coamo River. In turn, at south within the property a drainage basin leading and connecting to the Coamo River. This ravine, as well as the identified drainage, represent the strips of riparian forest within the area of



study. The characteristic species of this corridor are the American Guamá (*Pithecellobium dulce*), Capulín (*Muntingia calabura*), Guácima (*Guazuma ulmifolia*), Almácigo (*Bursera simaruba*), Ceiba (*Ceiba pentandra*), Royal palm (*Roystonea borinquena*) and the Palo de doll (*Cordia collococca*). The open parts associated with this stream are covered by herbaceous species and shrubs such as Guinea Yerba (*Panicum máximum*), Paragüita (*Cyperus alternifolius*) and Higuera (*Ricinus communis*). It is expected that these systems will not suffer impacts associated with the proposed project, since the installation of components of the proposed Project is not proposed in these areas.

Within the property, but excluded from the proposed design, three (3) hills are observed; high slope areas (17.0%) partially forested where native dry forest species have been established such as the Cariaquillo morado (*Lantana involucrate*), Broom (*Poitea florida*), Guácima (*Guazuma ulmifolia*), Úcar (*Terminalia buceras*) and Cotorro (*Adelia ricinella*) along with fast-growing exotic species such as the Zarcilla (*Leucaena leucocephala*) and the American Guamá (*Pithecellobium dulce*).

It is worth mentioning that some areas of the main plot are being used by people outside the property for the illegal disposal of debris. These disposal points were observed in areas where the unnamed intermittent stream runs, as well as through the trails in the northeastern portion.

Below is a breakdown of the flora species identified in the plots that are the subject of this study, as well as those observed throughout the section where the transmission line is planned to be located.

Table 4. Flora Species

Family	Scientific Name	Common Name	Type	Origin
Acanthaceae	<i>Ruellia simplex</i>	Mexican petunia	Grass	Non-native, Naturalized
	<i>Ruellia coccinea</i>	Yierba Maravilla	Shrub	Native
	<i>Ruellia tuberosa</i>	Not Available	Grass	Native
Aizoaceae	<i>Trianthema portulacastrum</i>	Black pigweed	Grass	Native
Amaranthaceae	<i>Achyranthes aspera</i>	Burweed	Grass	Non-native, naturalized
	<i>Amaranthus dubius</i>	Spleen amaranth	Grass	Native
	<i>Amaranthus spinosus</i>	Spiny amaranth	Grass	Native
Amaryllidaceae	<i>Hymenocallis latifolia</i>	Mangrove spider-lily	Grass	Non-native, naturalized
Anacardiaceae	<i>Comocladia glabra</i>	Carrasco	Shrub	Native

Family	Scientific Name	Common Name	Type	Origin
Anacardiaceae	<i>Comocladia dodonaea</i>	Christmas bush	Shrub	Native
	<i>Mangifera indica</i>	Mango	Tree	Non-native, naturalized
	<i>Spondias mombin</i>	Yellow mombin	Tree	Native
	<i>Spondias purpurea</i>	Purple mombin	Tree	Non-native, naturalized
Apocynaceae	<i>Calotropis procera</i>	Apple of Sodom	Shrub	Non-native, naturalized
	<i>Metastelma linearre</i>	Not Available	Vine	Native
	<i>Metastelma parviflorum</i>	Not Available	Vine	Native
	<i>Pinochia corymbosa</i>	Bejuco de San Juan	Vine	Native
	<i>Plumeria alba</i>	White Frangipani	Tree	Native
Araceae	<i>Roystonea borinquena</i>	Puerto Rican Royal palm	Tree	Native
Asparagaceae	<i>Sansevieria hyacinthoides</i>	Snake Plant	Grass	Non-native, naturalized
	<i>Sansevieria hyacinthoides</i>	Spineless Yucca	Shrub	Non-native, naturalized
Asteraceae	<i>Pluchea carolinensis</i>	Sourbush	Shrub	Native
	<i>Taraxacum officinale</i>	Common dandelion	Grass	Non-native, naturalized
	<i>Acanthospermum hispidum</i>	Starbur	Grass	Native
	<i>Bidns alba</i>	Butterfly Needles	Grass	Native
	<i>Bidens cynapiifolia</i>	Beggarticks	Grass	Native
	<i>Bidens reptans</i>	Pitchfork weed	Vine	Native
	<i>Chromolaena odorata</i>	Christmas bush	Shrub	Native
	<i>Conyza canadensis</i>	Horseweed	Grass	Native
	<i>Cyanthillium cinereum</i>	Little ironweed	Grass	Non-native, naturalized
	<i>Eclipta prostrata</i>	False daisy	Grass	Native
Asteraceae	<i>Emilia fosbergii</i>	Florida tasselflower	Grass	Non-native, naturalized
	<i>Mikania micrantha</i>	American Rope	Vine	Native

Family	Scientific Name	Common Name	Type	Origin
Asteraceae	<i>Verbesina alata</i>	Capitaneja	Grass	Native
	<i>Parthenium hysterophorus</i>	Whitetop	Grass	Native
	<i>Sphagneticola trilobata</i>	Merigold	Vine	Non-native, naturalized
	<i>Synedrella nodiflora</i>	Nodeweed	Grass	Native
	<i>Tridax procumbens</i>	Coatbuttons	Grass	Non-native, naturalized
Basellaceae	<i>Anredera cordifolia</i>	Not available	Vine	Non-native, naturalized
	<i>Amphilophium lactiflorum</i>	Milky-Flower	Vine	Native
	<i>Bignonia aequinoctialis</i>	Garlic vine	Vine	Native
	<i>Crescentia cujete</i>	Calabash tree	Tree	Native
	<i>Crescentia linearifolia</i>	Black calabash	Tree	Native
	<i>Dolichandra unguis-cati</i>	Cat's claw	Vine	Native
	<i>Spathodea campanulata</i>	African tulip tree	Tree	Non-native, naturalized
	<i>Tabebuia heterophylla</i>	Trumpet trees	Tree	Native
	<i>Tecoma stans</i>	Yellow trumpet bush	Shrub	Native
Bombacaceae	<i>Ceiba pentandra</i>	Silk-cotton tree	Tree	Native
Boraginaceae	<i>Bouyeria succulenta</i>	Bodywood	Tree	Native
	<i>Cordia alliodora</i>	Spanish elm	Tree	Native
	<i>Cordia collococca</i>	Clammy-cherry	Tree	Native
	<i>Heliotropium indicum</i>	Indian turnsole	Grass	Native
	<i>Rochefortia acanthophora</i>	Greenheart ebony	Shrub	Native
Boraginaceae	<i>Tournefortia hirsutissima</i>	Chiggery Grapes	Vine	Native
	<i>Varronia polycephala</i>	Black-sage	Shrub	Native
	<i>Varronia portoricensis</i>	Puerto Rican Varronia	Shrub	Native

Family	Scientific Name	Common Name	Type	Origin
Burseraceae	<i>Bursera simaruba</i>	Gumbo-limbo	Tree	Native
Cactaceae	<i>Opuntia repens</i>	Roving pricklypear	Shrub	Native
Cactaceae	<i>Pilosocereus royenii</i>	Dildo cactus	Tree	Native
Calophyllaceae	<i>Calophyllum antillanum</i>	West Indian laurel	Tree	Native
Campanulaceae	<i>Lobelia assurgens</i> L. var.	Cardinal Flower	Grass	Native
Capparaceae	<i>Cynophalla flexuosa</i>	Limber caper	Shrub	Native
	<i>Quadrella cynophallophora</i>	Jamaican caper tree	Tree	Native
	<i>Quadrella indica</i>	Hoary caper	Shrub	Native
Celastraceae	<i>Hippocratea volubilis</i>	Medicine vine	Vine	Native
	<i>Schaefferia frutescens</i>	Florida boxwood	Shrub	Native
Cleomaceae	<i>Arivela viscosa</i>	Wild mustard	Grass	Non-native, naturalized
Clusiaceae	<i>Clusia gundlachii</i>	Balsam Apple	Vine	Native
	<i>Clusia rosea</i>	Pitch-apple	Tree	Native
Combretaceae	<i>Terminalia buceras</i>	Black olive	Tree	Native
Convolvulaceae	<i>Merremia umbellata</i>	hogvine	Vine	Native
	<i>Convolvulus nodiflorus</i>	Aguinaldo blaco	Vine	Native
	<i>Ipomoea alba</i>	Moonflower	Vine	Native
	<i>Jacquemontia solanifolia</i>	Cambustera de costa	Vine	Native
	<i>Merremia quinquefolia</i>	Woodroses	Vine	Native
Crassulaceae	<i>Kalanchoe pinnata</i>	Cathedral bells	Grass	Non-native, naturalized
Cucurbitaceae	<i>Cucumis melo</i>	Melon	Vine	Non-native, naturalized
	<i>Cucumis anguria</i>	Cucumber	Vine	Non-native, naturalized
	<i>Cucurbita moschata</i>	Butternut squash	Vine	Non-native, naturalized
	<i>Melothria pendula</i>	Guadeloupe cucumber	Vine	Native
	<i>Momordica charantia</i>	Bitter melon	Vine	Non-native, naturalized

Family	Scientific Name	Common Name	Type	Origin
Cyperaceae	<i>Cyperus alternifolius</i>	Umbrella palm	Grass	Non-native, naturalized
	<i>Cyperus involucratus</i>	Umbrella sedge	Grass	Non-native, naturalized
Cyperaceae	<i>Cyperus rotundus</i>	Coco grass	Grass	Native
	<i>Scleria lithosperma</i>	Not Available	Grass	Native
Erythroxylaceae	<i>Erythroxylum areolatum</i>	False coca	Tree	Native
	<i>Erythroxylum brevipes</i>	Brisselet	Tree	Native
	<i>Erythroxylum rufum</i>	False coca	Shrub	Native
Euphorbiaceae	<i>Manihot esculenta</i>	Cassava	Grass	Native
	<i>Adelia ricinella</i>	Wild lime	Shrub	Native
	<i>Astraea lobata</i>	Lobed croton	Grass	Native
	<i>Chamaesyce hypericifolia</i>	Grateful spurge	Grass	Native
	<i>Dalechampia scandens</i>	Spurge creeper	Vine	Native
	<i>Euphorbia heterophylla</i>	Shining Spurge	Grass	Native
	<i>Euphorbia hirta</i>	Hairy Spurge	Grass	Native
	<i>Euphorbia prostrata</i>	Prostate spurge	Grass	Native
	<i>Gymnanthes lucida</i>	Puka	Tree	Native
	<i>Jatropha gossypifolia</i>	Bellyache bush	Shrub	Native
	<i>Ricinus communis</i>	Castor bean	Shrub	Non-native, naturalized
	<i>Tragia volúbilis</i>	Fireman	Vine	Native
Fabaceae	<i>Albizia procera</i>	White siris	Tree	Non-native, naturalized
	<i>Andira inermis</i>	Angeline tree	Tree	Native
	<i>Cajanus cajan</i>	Pigeon peas	Shrub	Non-native, naturalized
	<i>Crotalaria retusa</i>	Yellow lupin	Grass	Non-native, naturalized
	<i>Hymenaea courbaril</i>	Locust tree	Tree	Native
	<i>Leucaena leucocephala</i>	Zarcilla	Tree	Non-native, naturalized
	<i>Lonchocarpus heptaphyllus</i>	Palo seco	Tree	Native

Family	Scientific Name	Common Name	Type	Origin
	<i>Macroptilium atropurpureum</i>	Purple bushbean	Vine	Non-native, naturalized
Fabaceae	<i>Parkinsonia aculeata</i>	Horsebean	Shrub	Non-native, Only crops
	<i>Pictetia aculeata</i>	Fustic	Tree	Native
	<i>Vachellia farnesiana</i>	Sweet acacia	Shrub	Doubtfully Native
	<i>Alysicarpus vaginalis</i>	False moneywort	Grass	Non-native, naturalized
	<i>Anadenanthera peregrina</i>	Cahoba	Tree	Native
	<i>Caesalpinia decapetala</i>	Wait-a-bit	Vine	Native
	<i>Centrosema pubescens</i>	Butterfly pea	Vine	Native
	<i>Centrosema virginianum</i>	Wist vine	Vine	Native
	<i>Chamaecrista nictitans</i>	Sensitive partridge pea	Grass	Native
	<i>Coursetia caribaea</i>	Anil falso	Shrub	Native
	<i>Crotalaria incana</i>	Shake-shake	Grass	Native
	<i>Crotalaria pallida</i>	Smooth rattlebox	Grass	Non-native, naturalized
	<i>Delonix regia</i>	Flame tree	Tree	Non-native, naturalized
	<i>Desmanthus virgatus</i>	Desmanto	Shrub	Native
	<i>Desmodium adscendens</i>	Tick trefoil	Shrub	Native
	<i>Desmodium incanum</i>	Spanish clover	Vine	Native
	<i>Desmodium intortum</i>	Tick clover	Vine	Native
	<i>Desmodium triflorum</i>	ticktrefoil	Grass	Non-native, naturalized
	<i>Erythrina poeppigiana</i>	mountain immortelle	Tree	Non-native, naturalized
	<i>Indigofera suffruticosa</i>	anil de pasto	Shrub	Native
<i>Inga laurina</i>	sacky sac bean	Tree	Native	
<i>Inga vera</i>	river koko	Tree	Native	

Family	Scientific Name	Common Name	Type	Origin
	<i>Lonchocarpus domingensis</i>	geno geno	Tree	Native
Fabaceae	<i>Macroptilium lathyroides</i>	Wild bushbean	Grass	Native
	<i>Mimosa ceratonia</i>	Black ambret	Vine	Native
	<i>Mimosa pudica</i>	Shameplant	Grass	Native
	<i>Mucuna pruriens</i>	Velvet bean	Vine	Non-native, naturalized
	<i>Neptunia plena</i>	Water dead	Grass	Native
	<i>Pithecellobium dulce</i>	Monkeypod	Tree	Non-native, naturalized
	<i>Poitea florida</i>	Wattapama	Shrub	Native
	<i>Rhynchosia minima</i>	Least snoutbean	Vine	Native
	<i>Rhynchosia reticulata</i>	Habilla	Vine	Native
	<i>Senna bicapsularis</i>	Christmasbush	Shrub	Native
	<i>Senna hirsuta</i>	Woolly senna	Grass	Native
	<i>Senna occidentalis</i>	Septicweed	Shrub	Presumably Native
	<i>Senna polyphylla</i>	Retama prieta	Shrub	Native
	<i>Senna siamea</i>	Siamese cassia	Tree	Non-native, naturalized
	<i>Sesbania sericea</i>	Papagayo	Shrub	Non-native, naturalized
	<i>Tamarindus indica</i>	Tamarind	Tree	Non-native, naturalized
	<i>Tephrosia cinerea</i>	Ashen hoarypea	Grass	Native
	<i>Teramnus uncinatus</i>	Cresta de gallo blanco	Vine	Native
<i>Vigna luteola</i>	Hairy pod cowpea	Vine	Native	
Gesneriaceae	<i>Episcia cupreata</i>	Not Available	Grass	Non-native, Only crops
Lamiaceae	<i>Leonorus japonicus</i>	Honeyweed	Grass	Non-native,
	<i>Plectranthus amboinicus</i>	Mexican mint	Grass	Non-native, naturalized
	<i>Vitex divaricata</i>	Higuerillo	Tree	Native
	<i>Leonotis nepetifolia</i>	Christmas candlestick	Grass	Non-native, naturalized

Family	Scientific Name	Common Name	Type	Origin
Lauraceae	<i>Ocimum campechianum</i>	Wild sweet basil	Grass	Native
	<i>Licaria parvifolia</i>	Puerto Rico cinnamon	Tree	Native
Lauraceae	<i>Nectandra coriacea</i>	Lancewood	Tree	Native
Loranthaceae	<i>Dendropemon caribaeus</i>	Four-angle leechbush	Shrub	Native
Lythraceae	<i>Cuphea micrantha</i>	Tinypetal waxweed	Grass	Native
	<i>Cuphea parsonsia</i>	Island waxweed	Grass	Native
	<i>Lagerstroemia speciosa</i>	Pride of India	Tree	Non-native, Only crops
Malpighiaceae	<i>Heteropterys laurifolia</i>	Dragon withe	Vine	Native
	<i>Bunchosia glandulosa</i>	Cafe forastero	Shrub	Native
	<i>Stigmayphyllon emarginatum</i>	Bejuco de San Pedro	Vine	Native
	<i>Stigmayphyllon floribundum</i>	Bejuco de menta	Vine	Native
Malvaceae	<i>Bastardia viscosa</i>	Viscid mallow	Grass	Native
	<i>Corchorus hirtus</i>	Orinoco jute	Grass	Native
	<i>Corchorus siliquosus</i>	Slippery burr	Shrub	Native
	<i>Guazuma ulmifolia</i>	Bastardcedar	Tree	Native
	<i>Helicteres jamaicensis</i>	Screwtree	Shrub	Native
	<i>Malvastrum coromandelianum</i>	False mallow	Grass	Native
	<i>Melochia nodiflora</i>	Bretonica prieta	Shrub	Native
	<i>Melochia pyramidata</i>	Pyramidflower	Grass	Native
	<i>Melochia tomentosa</i>	Teabush	Shrub	Native
	<i>Sterculia apetala</i>	Panama tree	Tree	Non-native, naturalized
	<i>Triumfetta lappula</i>	Grandcousin	Shrub	Native
	<i>Triumfetta rhomboidea</i>	Diamond burbark	Shrub	Native
	<i>Triumfetta semitriloba</i>	Burweed	Shrub	Native
	<i>Waltheria indica</i>	Uhaloa	Shrub	Native

Family	Scientific Name	Common Name	Type	Origin
Malvaceae	<i>Allosidastrum pyramidatum</i>	Mock fanpetals	Shrub	Native
	<i>Gossypium hirsutum</i>	Upland cotton	Shrub	Native
	<i>Hibiscus phoeniceus</i>	Brazilian rosemallow	Grass	Native
	<i>Hibiscus tiliaceus</i> var. <i>pernambucensis</i>	Coast cottonwood	Tree	Presumably Native
	<i>Sida cordifolia</i>	Flannel weed	Grass	Native
	<i>Sida glabra</i>	Smooth fanpetals	Grass	Native
	<i>Sida repens</i>	Javanese fanpetals	Grass	Native
	<i>Sida glomerata</i>	Clustered fanpetals	Grass	Native
	<i>Sida rhombifolia</i>	Arrowleaf sida	Grass	Native
	<i>Sida spinosa</i>	Prickly fanpetals	Shrub	Native
	<i>Sidastrum multiflorum</i>	Sandmallow	Shrub	Native
	<i>Urena lobata</i>	Caesarweed	Shrub	Native
Melastomataceae	<i>Tetrazygia elaeagnoides</i>	Krekre	Tree	Native
Meliaceae	<i>Azadirachta indica</i>	Neem	Tree	Non-native, naturalized
	<i>Guarea guidonia</i>	American muskwood	Tree	Native
	<i>Trichilia hirta</i>	Broomstick	Tree	Native
Menispermaceae	<i>Cissampelos pareira</i>	Velvetleaf	Vine	Native
Moraceae	<i>Ficus lyrata</i>	Fiddleleaf fig	Tree	Non-native, naturalized
	<i>Ficus citrifolia</i>	Wild banyantree	Tree	Non-native, naturalized
	<i>Ficus elastica</i>	Indian rubberplant	Tree	Non-native, naturalized
Muntingiaceae	<i>Muntingia calabura</i>	Strawberrytrees	Tree	Non-native, naturalized
Musaceae	<i>Musa acuminata</i> x <i>balbisiana</i>	Plantain	Tree	Non-native, Only crop
Family	Scientific Name	Common Name	Type	Origin

Musaceae	<i>Musa x paradisiaca</i>	Banana	Tree	Non-native, Only crop
Myrtaceae	<i>Callistemon citrinus</i>	Crimson bottlebrush	Shrub	Non-native, Only crop
	<i>Melaleuca quinquenervia</i>	Punktrees	Tree	Non-native, naturalized
	<i>Eugenia foetida</i>	Red stopper	Tree	Native
	<i>Eugenia ligustrina</i>	Privet stopper	Shrub	Native
	<i>Eugenia monticola</i>	Birdcherry	Shrub	Native
	<i>Eugenia procera</i>	Rockmyrtle	Shrub	Native
	<i>Eugenia pseudopsidium</i>	Christmas cherry	Shrub	Native
	<i>Myrcia splendens</i>	Punchberry	Shrub	Native
	<i>Psidium guajava</i>	Guava	Shrub	Native
	<i>Syzygium jambos</i>	Malabar plum	Tree	Non-native, naturalized
Nyctaginaceae	<i>Boerhavia coccinea</i>	Scarlet spiderling	Grass	Native
	<i>Guapira fragans</i>	Black mampoo	Tree	Native
	<i>Pisonia aculeata</i>	Devil's claws	Vine	Native
	<i>Pisonia albida</i>	Cockspur	Tree	Native
Oleaceae	<i>Jasminum fluminense</i>	Brazilian jasmine	Vine	Non-native, naturalized
Oxalidaceae	<i>Averrhoa carambola</i>	Five-star fruit	Tree	Non-native, Only crop
	<i>Oxalis barrelieri</i>	Barrelier's woodsorrel	Grass	Native
Papaveraceae	<i>Argemone mexicana</i>	Mexican pricklypoppy	Grass	Native
Passifloraceae	<i>Passiflora foetida</i> L. var	Stinky passionflower	Vine	Native
	<i>Passiflora suberosa</i>	corkstem passionflower	Vine	Native
Phyllanthaceae	<i>Savia sessiliflora</i>	Amansa guapo	Shrub	Native
	<i>Phyllanthus niruri</i>	Gale of the wind	Grass	Native
Phytolaccaceae	<i>Petiveria alliacea</i>	Guinea henweed	Grass	Native
	<i>Rivina humilis</i>	Rougeplant	Grass	Native
	<i>Trichostigma octandrum</i>	Hoopvine	Vine	Native
Piperaceae	<i>Peperomia alata</i>	Not available	Grass	Native

Family	Scientific Name	Common Name	Type	Origin
Piperaceae	<i>Peperomia humilis</i>	Not available	Grass	Native
	<i>Piper amalago</i>	Pepper elder	Shrub	Native
	<i>Piper aduncum</i>	Spiked pepper	Tree	Native
Plumbaginaceae	<i>Plumbago zeylanica</i>	Wild leadwort	Vine	Non-native, Naturalized
Poaceae	<i>Cenchrus ciliaris</i>	Buffelgrass	Grass	Non-native, Naturalized
	<i>Chloris sagraana</i>	Windmillgrass	Grass	Native
	<i>Dactyloctenium aegyptium</i>	Egyptian grass	Grass	Non-native, naturalized
	<i>Melinis repens</i>	Rose Natal grass	Grass	Non-native, naturalized
	<i>Panicum maximum</i>	Guineagrass	Grass	Non-native, naturalized
	<i>Axonopus compressus</i>	Carpetgrass	Grass	Non-native, naturalized
	<i>Bothriochloa bladhii</i>	Caucasian bluestem	Grass	Non-native, naturalized
	<i>Bothriochloa pertusa</i>	Pitted beardgrass	Grass	Non-native, naturalized
	<i>Chloris barbata</i>	Tall windmill grass	Grass	Native
	<i>Cynodon dactylon</i>	Bermudagrass	Grass	Non-native, naturalized
	<i>Dichanthium annulatum</i>	Kleberg's bluestem	Grass	Non-native, naturalized
	<i>Digitaria ciliaris</i>	Southern crabgrass	Grass	Presumed Native
	<i>Digitaria decumbens</i>	Woolly fingergrass	Grass	Non-native, naturalized
	<i>Digitaria longiflora</i>	Indian crabgrass	Grass	Non-native, naturalized
	<i>Echinochloa colona</i>	Jungle rice	Grass	Non-native, naturalized
	<i>Eleusine indica</i>	Indian goosegrass	Grass	Non-native, naturalized
	<i>Eragrostis ciliaris</i>	Gophertail lovegrass	Grass	Non-native, naturalized
	<i>Ichnanthus pallens</i>	Caruzo	Grass	Native
<i>Lasiacis divaricata</i>	Smallcane	Vine	Native	
<i>Olyra latifolia</i>	Carrycillo	Grass	Native	

Family	Scientific Name	Common Name	Type	Origin
Poaceae	<i>Pharus latifolius</i>	Broad stalkgrass	Grass	Native
	<i>Setaria parviflora</i>	Narsh bristlegrass	Grass	Native
	<i>Sporobolus pyramidalis</i>	Giant rat's tail grass	Grass	Native
	<i>Urochloa distachya</i>	Tropical signalgrass	Grass	Non-native, naturalized
	<i>Urochloa fusca</i>	Browntop signalgrass	Grass	Native
	<i>Urochloa mosambicensis</i>	African liverseed grass	Grass	Non-native, naturalized
Polygalaceae	<i>Securidaca virgata</i>	Bejuco de soplá	Vine	Native
	<i>Antigonon leptopus</i>	Coral vine	Vine	Non-native, naturalized
	<i>Coccoloba diversifolia</i>	Tietongue	Tree	Native
	<i>Coccoloba sintenisii</i>	Uvero de monte	Tree	Native
	<i>Coccoloba venosa</i>	False chiggergrape	Tree	Native
Portulacaceae	<i>Portulaca oleraceae</i>	Uvero de monte	Grass	Doubtfully Native
	<i>Portulaca pilosa</i>	Kiss me quick	Grass	Native
Primulaceae	<i>Ardisia elliptica</i>	Shoebuttón	Shrub	Native
	<i>Ardisia obovata</i>	Guadeloupe marlberry	Shrub	Non-native, naturalized
Putranjivaceae	<i>Drypetes glauca</i>	Varital	Tree	Native
Rhamnaceae	<i>Gouania lupuloides</i>	Whiteroot	Vine	Native
	<i>Gouania polygama</i>	Liane savon	Vine	Native
Rubiaceae	<i>Chiococca alba</i>	West Indian milkberry	Shrub	Native
	<i>Exostema caribaeum</i>	Caribbean princewood	Shrub	Native
	<i>Faramea occidentalis</i>	False coffee	Shrub	Native
	<i>Guettarda scabra</i>	Wild guave	Tree	Native
	<i>Hamelia patens</i>	Scarletbush	Shrub	Native
	<i>Oldenlandia lancifolia</i>	Calycose mille grains	Grass	Non-native, naturalized
	<i>Psychotria domingensis</i>	Cheakyberry	Shrub	Native

Family	Scientific Name	Common Name	Type	Origin
Rubiaceae	<i>Psychotria nervosa</i>	Seminole balsamo	Shrub	Native
	<i>Psychotria pubescens</i>	Cachimbo	Shrub	Native
	<i>Randia aculeata</i>	White indigoberry	Shrub	Native
	<i>Rondeletia inermis</i>	Cordobancillo	Shrub	Native
	<i>Spermacoce prostrata</i>	Prostrate false buttonweed	Grass	Native
Rutaceae	<i>Citrus aurantifolia</i>	Key lime	Shrub	Native
	<i>Zanthoxylum monophyllum</i>	Yellow prickly	Tree	Native
Salicaceae	<i>Xylosma buxifolium</i>	Mucha-gente	Tree	Native
	<i>Casearia decandra</i>	Wild honeytree	Shrub	Native
	<i>Casearia guianensis</i>	Guyanese wild coffee	Shrub	Native
	<i>Casearia sylvestris</i>	Crackopen	Shrub	Native
Santalaceae	<i>Phoradendron piperoides</i>	Piper mistletoe	Shrub	Native
Sapindaceae	<i>Cupania americana</i>	Wild ackee	Tree	Native
	<i>Melicoccus bijugatus</i>	Spanish lime	Tree	Non-native, Naturalized
	<i>Serjania polyphylla</i>	Basketwood	Vine	Native
	<i>Thouinia striata</i>	Ceboruquillo	Tree	Native
Sapotaceae	<i>Chrysophyllum argenteum</i>	Bastard redwood	Tree	Native
	<i>Sideroxylon obovatum</i>	Breakbill	Shrub	Native
Scrophulariaceae	<i>Capraria biflora</i>	Goatweed	Grass	Native
Smilacaceae	<i>Smilax coriacea</i>	Everglades greenbrier	Vine	Native
Solanaceae	<i>Solanum melongena</i>	eggplant	Grass	Non-native, Only crop
	<i>Cestrum diurnum</i>	Day jessamine	Shrub	Native
	<i>Datura inoxia</i>	Pricklyburr	Shrub	Presumably Native
	<i>Physalis angulata</i>	Cutleaf groundcherry	Grass	Native
	<i>Solanum torvum</i>	Turkey berry	Shrub	Native
Tectariaceae	<i>Tectaria heracleifolia</i>	Not Available	Grass	Native
Urticaceae	<i>Pilea microphylla</i>	Rockweed	Grass	Native

Family	Scientific Name	Common Name	Type	Origin
Urticaceae	<i>Pilea nummulariifolia</i>	Creeping charlie	Grass	Native
Verbenaceae	<i>Lantana camara</i>	Lantana	Shrub	Native
	<i>Lantana involucrata</i>	Buttonsage	Shrub	Native
	<i>Lantana reticulata</i>	Netted shrubverbena	Shrub	Native
	<i>Lantana urticifolia</i>	nettleleaf shrubverben	Shrub	Native
	<i>Lippia nodiflora</i>	Turkey tangle fogfruit	Shrub	Native
Vitaceae	<i>Cissus verticillata</i>	Seasonvine	Vine	Native
Zygophyllaceae	<i>Kallstroemia pubescens</i>	Caribbean caltrop	Grass	Native

Database: Gann GD, Trejo-Torres JC (2015-2023) Plantas de la Isla de Puerto Rico / Plants of the Island of Puerto Rico. The Institute for Regional Conservation. Delray Beach, Florida, USA.

The United States Fish and Wildlife Service (USFW) Data Bank, through its IPaC tool, identified two (2) species of flora that could be present on the proposed properties; *Eugenia woodburyana* and *Goetzea elegans*. However, neither of these two species was observed during the study period.

6.2 FAUNA

Regarding the fauna of the project area, a total of seventy-one (71) species were observed, with birds being the dominant group. The most common bird species on the property and surrounding areas are: Turkish pigeon (*Patagioenas squamosa*), Puerto Rican bullfinch (*Loxigilla portoricensis*), Butterfly warbler (*Dendroica adelaidae*), Common ground dove (*Columbina passerina*), Gray kingbird (*Tyrannus dominicensis*), Jewish quig (*Crotophaga ani*), House sparrow (*Passer domesticus*), as well as sparrows of the genera *Tiaris* and *Melanospiza*. These species were observed mostly in the strips of riparian forest associated with the streams and drainages on the property.

For its part, the Cattle Heron (*Bulbucus ibis*) was commonly observed in areas where earthworks associated with agricultural activities were carried out. Several birds of prey were identified such as the Aura tiñosa (*Cathartes aura*), the common falcon (*Falco sparverius*) and the royal scaup (*Asio flammeus*). This last species was identified in the day and night observation periods.



Buteo jamaicensis (Red-tailed hawk)



Oecanthus allardi (Allard's Ground)

As for reptiles, the Crested Lizard (*Anolis cristatellus*) and the Puerto Rican Racer Snake (*Borinquenopsis portoricensis*) were observed on the grounds. The group of insects, for its part, was represented by the species of Monarch butterflies (*Danaus plexippus*), Gulf fritillary (*Agraulis vanillae*) and the White butterfly (*Ascia monuste*). As for arachnids, the Brown Tarantula (*Cyrtopholis portoricae*) and the Silver Spider (*Argiope argentata*) turned out to be common throughout the properties.

The species of cricket (*Oecanthus allardi*) was identified, whose males began to sing at dusk, at the beginning of the nocturnal observation periods.

Table 5. Fauna Species

Aves		
Family	Scientific Name	Common Name
Ardeidae	<i>Ardea alba</i>	Great egret
	<i>Bubulcus ibis</i>	Western cattle egret
	<i>Nyctanassa violacea</i>	Yellow-crowned night-herons
Cathartidae	<i>Cathartes aura</i>	Turkey vulture
Accipitridae	<i>Buteo jamaicensis</i>	Red-tailed hawk
Falconidae	<i>Falco sparverius</i>	American kestrel
Columbidae	<i>Columbina passerina</i>	Common ground dove
	<i>Patagioenas squamosa</i>	Scaly-naped Pigeon
	<i>Zenaida asiatica</i>	White-winged dove
	<i>Zenaida aurita</i>	Zenaida dove
	<i>Streptopelia risoria</i>	Barbary dove
Recurvirostridae	<i>Himantopus mexicanus</i>	Black-necked stilt
Cuculidae	<i>Coccyzus vieilloti</i>	Puerto Rican lizard cuckoo

Aves		
Family	Scientific Name	Common Name
Cuculidae	<i>Crotophaga ani</i>	Smooth-billed ani
	<i>Asio flammeus</i>	Short-eared owl
Trochilidae	<i>Anthracothorax dominicus</i>	Antillean mango
	<i>Anthracothorax viridis</i>	Green mango
	<i>Chlorostilbon maugaeus</i>	Puerto Rican emerald
Todidae	<i>Todus mexicanus</i>	Puerto Rican tody
Picidae	<i>Melanerpes portoricensis</i>	Puerto Rican Woodpecker
Tyrannidae	<i>Elaenia martinica</i>	Caribbean elaenia
	<i>Myiarchus antillarum</i>	Puerto Rican Flycatcher
	<i>Tyrannus dominicensis</i>	Gray kingbird
	<i>Tyrannus caudifasciatus</i>	Loggerhead Kingbird
Vireonidae	<i>Vireo latimeri</i>	Puerto Rican vireo
	<i>Vireo altiloquus</i>	Black-whiskered Vireo
Hirundinidae	<i>Petrochelidon fulva</i>	Cave swallow
Turdidae	<i>Turdus plumbeus</i>	Red-legged thrush
Mimidae	<i>Mimus polyglottos</i>	Northern mockingbird
	<i>Margarops fuscatus</i>	Pearly-eyed thrasher
Parulidae	<i>Dendroica adelaidae</i>	Adelaide's Warbler
	<i>Dendroica discolor</i>	Prairie Warbler.
Spindalidae	<i>Spindalis portoricensis</i>	Puerto Rican spindalis
Thraupidae	<i>Coereba flaveola</i>	Bananaquit
	<i>Melanospiza bicolor</i>	Black-faced grassquit
	<i>Tiaris olivacea</i>	Yellow-faced grassquit
	<i>Loxigilla portoricensis</i>	Puerto Rican bullfinch
Icteridae	<i>Quiscalus niger</i>	Greater Antillean grackle
	<i>Molothrus bonariensis</i>	Shiny cowbird
	<i>Icterus portoricensis</i>	Puerto Rican oriole
	<i>Icterus icterus</i>	Venezuelan troupial
Passeridae	<i>Passer domesticus</i>	House sparrow
Estrildidae	<i>Estrilda melpoda</i>	Orange-cheeked waxbill
	<i>Lonchura cucullata</i>	Bronze mannikin
	<i>Lonchura punctulata</i>	Nutmeg mannikin
Amphibians		
Family	Scientific Name	Common Name
Bufonidae	<i>Bufo marinus</i>	Cane Toad
Leptodactylidae	<i>Eleutherodactylus antillensis</i>	Red-eyed coqui
	<i>Eleutherodactylus coqui</i>	Common Coqui
	<i>Leptodactylus albilabris</i>	Caribbean white-lipped Frog
Rannidae	<i>Rana catesbeana</i>	American bullfrog

Reptiles		
Family	Scientific Name	Common Name
Colubridae	<i>Borikenophis portoricensis</i>	Puerto Rican racer
Polychrotidae	<i>Anolis cristatellus cristatellus</i>	Puerto Rican crested anole
	<i>Anolis pulchellus</i>	Common grass anole
	<i>Anolis stratulus</i>	Spotted anole
Iguanidae	<i>Iguana iguana</i>	Green iguana
Mammals		
Family	Scientific Name	Common Name
Phyllostomidae	<i>Artibeus jamaicensis</i>	Jamaican fruit-eating bat
Invertebrates		
Family	Scientific Name	Common Name
Termitidae	<i>Nasutitermes costalis</i>	Tree termite
Monophlebidae	<i>Crypticerya genistae</i>	Genista's giant scale insect
Danaidae	<i>Danaus plexipus</i>	Monarch butterfly
Pieridae	<i>Agraulis vanillae</i>	Gulf fritillary
	<i>Biblis hyperia</i>	Red rim or crimson-banded black
	<i>Ascia monuste</i>	Great southern white ascia
	<i>Phoebis sennae sennae</i>	Cloudless sulphur
Erebidae	<i>Utetheisa ornatix</i>	Ornate bella moth
Apidae	<i>Apis mellifera</i>	Western honey bee
Gryllidae	<i>Oecanthus allardi</i>	Ground cricket
Acrididae	<i>Schistocerca serialis</i>	Bird grasshoppers
Pompilidae	<i>Pepsis rubra</i>	Spider wasps
Theraphosidae	<i>Cyrtopholis portoricae</i>	Puerto Rican brown tarantula
Araneidae	<i>Argiope argentata</i>	Silver garden spider
Tetragnathidae	<i>Leucauge argyra</i>	Orchard orbweavers

The United States Fish and Wildlife Service (USFW) Data Bank, through its IPaC tool, identified three (3) species of fauna that could be present on the proposed properties; *Caprimulgus noctitherus* (Puerto Rican nightjar or “Guabairo”), *Epicrates inornatus* (Puerto Rican boa) and *Peltophryne lemur* (Puerto Rican crested toad). For the Puerto Rican crested toad, the DNER has delimited a Conservation Priority Area (CPA) for the Puerto Rican crested toad south-central, which is located at an approximate distance of 58 meters from the property proposed as an interconnection point. **Figure 7** includes a radius of 400 meters from the center of the property showing the limits of the APC.

It should be noted that none of these three species were observed during the study period.

7. DISCUSSION

The installations of the components included in the solar photovoltaic project design are proposed on land that has been previously impacted by agricultural activities. Approximately 77.3% of these lands have been dedicated to some agricultural use (including the defunct sugar cane industry), leaving small portions to the southeast, northwest and central west, which are under artisanal cultivation of pumpkin, melon, plantains and hay.

In the areas of land where agricultural activities have been abandoned or are at rest, fast-growing species adapted to the climatic conditions characteristic of the south of the Island have established themselves. These resting lands are home to a large amount of fauna such as arthropods, which, consequently, attract insectivorous and granivorous birds. These abandoned or dormant tracts of land have developed herbaceous species that attract birds for both feeding and nesting. These species could lose land where they nest or forage due to the installation of solar panels and other infrastructure. However, it is anticipated due to adaptations to the constant changes in agricultural activities that they will be established in nearby habitats during the construction phase, and return gradually once completed.

The development of the project will have short-term impacts on terrestrial flora and fauna due to the location of solar panels, roads and other infrastructure in areas that are currently used for agricultural purposes. These activities that will be carried out on the Project property could cause some of the wildlife, which uses habitats in the area, to be temporarily displaced during the construction phase. However, given the continuous operations for crop production in some portions of the land covered by the main plot, there are species of fauna that appear to be adapted to this type of activity. These are observed making constant movements as the machines work the areas. It is anticipated that these species, mostly birds, will establish themselves in nearby habitats during the construction phase and gradually return once it is completed. The proposed Project is not expected to serve as a vehicle for the entry of exotic species with invasive potential.

On the other hand, the strips of afforested riparian forest associated with the intermittent ravine, as well as the drainage identified to the south, make up a natural corridor that attracts a high diversity of birdlife such as the Turkish pigeon (*Patagioenas squamosa*), the Puerto Rican Bullfinch or "Comeñame" (*Loxigilla portoricensis*), the "San Pedrito" or Puerto Rican tody (*Todus mexicanus*), the Puerto Rican Spindalis (*Spindalis portoricensis*), the Adelaide's Warbler (*Dendroica adelaidae*), among others. These strips have abundant vegetation that provides protection, food, rest areas and roosts for them. For their part, small birds of prey such as the American kestrel (*Falco sparverious*) were observed mostly on the edges of the strips of riparian forest, usually perched on power lines waiting for prey, including other birds, small mammals, and large invertebrates. It should be noted that the design of the project, as well as the installation of all its components, remains outside the strips of riparian forest

In turn, the areas identified as hills; partially forested high slope areas, where native dry forest species have been established such as the Lantana or “Cariaquillo morado” (*Lantana Fácil*), Retama (*Poitea florida*), West Indian elm or Guácima (*Guazuma ulmifolia*), black olive or oxborn bucida (*Terminalia buceras*) and wild lime (*Adelia ricinella*) along to fast-growing exotic species such as the Coffeebush or white lead tree (*Leucaena leucocephala*) and the Manila tamarind (*Pithecellobium dulce*). These areas are excluded from the design and installation of the components of this solar photovoltaic project.

It should be noted that the establishment of the photovoltaic project will entail the cleaning and removal of clandestine landfills, throughout the different points of the main Parcel, with a patrol and surveillance system using cameras to prevent future disposals. This will allow the associated vegetation and fauna to be reestablished in these areas. In turn, the implementation of these measures will contribute to environmental sanitation by reducing the impact of solid waste on the soil, and consequently on the water.

The USFWS, through its IPaC tool, identified for the area where the proposed lands are located five species classified as endangered or threatened: the flora species *Goetzea elegans* and *Eugenia woodburyana*, the amphibian *Peltophryne lemur*. Of the reptiles, the species *Epicrates inornatus*, and as for birdlife, the species *Caprimulgus noctitherus*. However, during the observations carried out, both in the daytime and nighttime periods, these species were not located within the limits of the studied areas.

8. CONCLUSION AND RECOMMENDATIONS

The proposed properties were previously impacted by agricultural activities, and currently continue to be used for these purposes. Within the properties, no ecologically sensitive areas were found, with the exception of the strips of riparian forest associated with the intermittent unnamed streams, and the drainage identified in the southern portion of the property. Abandoned and/or disused agricultural lands are common in the region, however, riparian forest associations are scarce and have a high ecological value.

Because the project contemplates the conservation of these strips/patches of riparian forest, it is not expected that species with any conservation interest, or habitats of ecological value, will be significantly affected.

Below we present some recommendations for the implementation of the 100MW Convergent Solar Photovoltaic Project, which will result in avoiding, reducing or minimizing the possible impacts of the proposed project to wildlife:

- Design so that the strips of land included by the channels of the intermittent unnamed streams, as well as the drainage strip to the south of the property, are avoided with a buffer of five meters (5m) wide measured from the top of the bank of the body of water. Said strip will be maintained for the sole purpose of conservation of the body of water.
- Trees that are impacted by the construction of the Project outside of agricultural zoning areas will be identified in accordance with the applicable provisions of Chapter 3.4 Environmental Permits of the Joint Regulation for the Evaluation and Issuance of Permits Related to Development, Land Use and Business Operation effective January 2, 2021. As a mitigation measure, it will be compensated by planting according to the requirements regarding the Diameter at Breast Height (DBH) ratio.
- Best management practices will be implemented during the construction and operation of the project to minimize impacts on water bodies. For this, an Erosion and Sedimentation Control Plan (CES Plan) will be implemented, which will be evaluated by the Environmental Quality Board (EQB).
- While some species adapt to some extent to the continued development of green spaces, careful planning is necessary to ensure that important wildlife habitats are not destroyed and that any conflict that arises be minimized and remedied. For these reasons, the New Wildlife Law, as amended (Law No. 241 of August 15, 1999) and the Law on Environmental Public Policy, as amended (Law No. 416 of September 22, 2004), will be complied with. in relation to the protection of the Environment and the species of Flora and Fauna that inhabit it.

- Utility operators will be instructed to maintain an appropriate speed while traveling through the property to minimize possible collisions with birds and other wildlife. Likewise, instructions will be given on measures to reduce possible fires, avoid the use and handling of toxic substances, especially pesticides, and other forms of vegetation control.

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APPENDICES

Appendix 1. Photographic documentation



Sweet acacia bush (*Vachellia farnesiana*)



Bellyache bush (*Jatropha gossypifolia*)



View of the area identified as LT#8 where a drain is identified



White lead tree (*Leucaena leucocephala*)



Grasshopper (*Schistocerca serialis*) - Acrididae



Cabbagebark tree (*Andira inermis*)



View of the area identified as LT#13



View from the main plot towards the aerial crossing of the new line that interconnects the facility to the existing 115Kv Line



Falseteeth (*Cynophalla flexuosa*)



View from the Gabia sector local road of the area identified for the interconnection line to the 115Kv network.



20 may. 2022 10:16:48 a. m.
+18.0539N -66.3893W
171° S
14
San Ildefonso
Coamo

Levant cotton (*Gossypium herbaceum*)



28 abr. 2022 8:44:28 a. m.
+18.0551N -66.3853W
173° W
14
San Ildefonso
Coamo

Puerto Rican racer (*Borinkenopsis portorricensis*)



View of one of the debris disposal points within the premises



Observation point of Short-eared owl (*Asio flammeus*)



View of the proposed property for the installation of the switch yard. These properties are currently used for breeding and grazing horses.



Detail of the anchorage of the existing 115Kv line and the proposed area for the new interconnection line.

Appendix 2. List of threatened and endangered species



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (787) 834-1600 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:

May 23, 2023

Project Code: 2023-0085302

Project Name: Convergent Coamo Solar photovoltaic facility

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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

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

This species list is provided by:

Caribbean Ecological Services Field Office
caribbean_es@fws.gov

Post Office Box 491
Boqueron, PR 00622-0491
(786) 244-0081

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

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

This species list is provided by:

Caribbean Ecological Services Field Office

Post Office Box 491

Boqueron, PR 00622-0491

(787) 834-1600

PROJECT SUMMARY

Project Code: 2023-0085302
Project Name: Convergent Coamo Solar photovoltaic facility
Project Type: Power Gen - Solar
Project Description: Main Parcel
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.051668749999997,-66.38213782819173,14z>



Counties: Coamo County, Puerto Rico

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

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

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

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

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

REPTILES

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6628 General project design guidelines: https://ipac.ecosphere.fws.gov/project/SLIRA4IHUFCSXGQLMSVQVIKWSU/documents/generated/6941.pdf	Endangered

AMPHIBIANS

NAME	STATUS
Puerto Rican Crested Toad <i>Peltophryne lemur</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3958 General project design guidelines: https://ipac.ecosphere.fws.gov/project/SLIRA4IHUFCSXGQLMSVQVIKWSU/documents/generated/6942.pdf	Threatened

FLOWERING PLANTS

NAME	STATUS
Beautiful Goetzea <i>Goetzea elegans</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6453	Endangered
Eugenia woodburyana No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8346	Threatened

CRITICAL HABITATS

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

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

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

MIGRATORY BIRDS

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

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their 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.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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

MIGRATORY BIRDS FAQ

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](#).

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 to 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.

WETLANDS

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

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

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

RIVERINE

- [R5UBH](#)
 - [R4SBC](#)
-

IPAC USER CONTACT INFORMATION

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Name: Tania Marrero
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City: San Juan
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United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (787) 834-1600 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:

May 23, 2023

Project Code: 2023-0085309

Project Name: Convergent Coamo Solar photovoltaic facility

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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

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

This species list is provided by:

Caribbean Ecological Services Field Office
caribbean_es@fws.gov

Post Office Box 491
Boqueron, PR 00622-0491
(786) 244-0081

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

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This species list is provided by:

Caribbean Ecological Services Field Office

Post Office Box 491

Boqueron, PR 00622-0491

(787) 834-1600

PROJECT SUMMARY

Project Code: 2023-0085309
Project Name: Convergent Coamo Solar photovoltaic facility
Project Type: Power Gen - Solar
Project Description: Polygon 1
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.0248076,-66.38410408609886,14z>



Counties: Santa Isabel County, Puerto Rico

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

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

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

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

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

BIRDS

NAME	STATUS
Puerto Rican Nightjar <i>Caprimulgus noctitherus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6972	Endangered

REPTILES

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6628 General project design guidelines: https://ipac.ecosphere.fws.gov/project/5YM2HSLTX5GMDPU2FQQJSTMFGQ/documents/generated/6941.pdf	Endangered

AMPHIBIANS

NAME	STATUS
Puerto Rican Crested Toad <i>Peltophryne lemur</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3958 General project design guidelines: https://ipac.ecosphere.fws.gov/project/5YM2HSLTX5GMDPU2FQQJSTMFGQ/documents/generated/6942.pdf	Threatened

FLOWERING PLANTS

NAME	STATUS
Beautiful Goetzea <i>Goetzea elegans</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6453	Endangered

CRITICAL HABITATS

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

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

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

MIGRATORY BIRDS

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

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their 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.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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

MIGRATORY BIRDS FAQ

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](#).

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 to 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.

WETLANDS

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

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

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

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

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CAGUAS BATTERY ENERGY STORAGE SYSTEM (CAGUAS BESS)

FLORA AND FAUNA DESCRIPTION

The property proposed for the Caguas Battery Energy Storage System (Caguas BESS) project is located at PR-1 intersection PR-52 Bo. Bairoa, Caguas, Puerto Rico. Figure 1 Annex A illustrates the proposed site for the Caguas BESS project. A field visit was carried out on August 28, 2023 with the purpose of validating the information provided by the federal Fish and Wildlife Service (USFWS) and identifying the species of flora and fauna on the property proposed for the Caguas BESS project. Grasses dominated the property and some trees were observed on the border of the property with the access ramp from the PR-52 expressway to the PR-1 State Highway, such as the areca palm tree, tropical almond tree, trumpet tree and several Puerto Rican hat palm trees. The property is unoccupied. To the north and east it borders the access ramp from the PR-52 expressway to the PR-1 State Highway. To the south, commercial and industrial uses predominate and to the west it borders the Bairoa urbanization. See photo-documentation in Annex B.

In general terms, the observed fauna was represented exclusively by bird species with wide distribution in Puerto Rico. The presence of reptile species, amphibians or mammals was not observed during the field visit. Table 1 below summarizes the flora species observed on the property.

TABLE 1 – LIST OF FLORA OBSERVED WITHIN THE PROJECT AREA		
COMMON NAME	SCIENTIFIC NAME	REFERENCES
Gramíneas	<i>Gramineae</i>	Little, Elbert; Wadsworth, Frank; José Marrero, Árboles Comunes de Puerto Rico y las Islas Vírgenes, Editorial de la Universidad de Puerto Rico, 2001 Edwin & García M.O. (1990) Guía ilustrada de yerbas comunes en Puerto Rico. UPR-RCM Colegio de Ciencias Agrícolas / Servicio de Extensión Agrícola.
Palma sombrero (Puerto Rican hat palm)	<i>Sabal causiarum</i>	
Palma areca (golden cane palm)	<i>Dypsis lutescens</i>	
Guineo/Plátano (banana/plantain)	<i>Musa spp.</i>	
Yagrumo (trumpet tree)	<i>Cecropia peltata</i>	
Papaya (papaw or pawpaw)	<i>Carica papaya</i>	
Almendro (tropical almond tree)	<i>Terminalia catappa</i>	

In general terms, because the flora associated with the project area consists mostly of grasses, there are few species of fauna on the property. (See Annex B – Photo documentation).

The observed fauna was represented exclusively by bird species with wide distribution in Puerto Rico. The presence of reptile or amphibian species was not observed during the field visit. Table 2 below summarizes the flora species observed on the property.

TABLE 2 LIST OF FAUNA OBSERVED WITHIN THE PROJECT AREA		
NOMBRE COMÚN	NOMBRE CIENTÍFICO	REFERENCIAS
Rolita (common ground-dove)	<i>Columbina passerina</i>	Raffaele, Herbert A., Una Guía a las Aves de Puerto Rico y las Islas Vírgenes. Publishing Resources, Inc. Princeton University Press. Segunda Edición. 1970.
Reinita común (bananaquit)	<i>Coereba flaveola</i>	
Chango (Greater Antillean Grackle)	<i>Quiscalus niger</i>	

The species observed are widely distributed in Puerto Rico. No threatened or endangered species were observed on the property proposed for the Caguas BESS project.

The USFWS did not identify the proposed project area as critical habitat for the threatened or endangered species that may inhabit the proposed land. This is the Puerto Rican Boa (*Epicrates inornatus*). During the field visit, the Puerto Rican Boa was not observed.

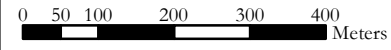
**ANNEX A
FIGURES**

REUSE OF DOCUMENTS, THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN
CENTRAL, INC./CSA GROUP ARCHITECTS AND ENGINEERS, PC AND IS NOT TO BE USED, IN WHOLE OR
IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CSA.

Path: C:\Users\evazquez\OneDrive - CSA Group\Inch\desktop\evazquez\ec21-0105\mxd\env_De\skop_Review\Caguas\Env\De\skop_Review\Figure 1_Aerial_8_sx11_L.mxd
csage evazquez 4/22/2021 8:51:11



Scale: 1:10,000



Legend

- State Road¹
- ▭ Caguas Project Parcel

Sources:
1. Puerto Rico Highways and Transportation Authority (ACT by its acronym in Spanish), 2018.
2. Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Coordinate System: State Plane NAD83 (2011) Puerto Rico and Virgin Islands FIPS 5200 (Meters)



Figure 1. Aerial Photograph of the Project Site

Stage 1 – Preliminary Environmental Desktop Review
Caguas, Puerto Rico

ANNEX B
PHOTO-DOCUMENTATION



Photo #1 – View toward the northwest at the proposed Caguas BESS site.



Photo #2 – View toward the north at the proposed Caguas BESS site.



Photo #3 – View toward the northeast at the proposed Caguas BESS site



Photo #4 – View toward the east at the proposed Caguas BESS site.



Photo #5 – View of palms and trees observed at the Caguas BESS site.



Photo #6 – View of palms and trees observed at the Caguas BESS site.

ANNEX C
USFWS LIST OF THREATENED OR ENDANGERED SPECIES AND DESIGNATION
OF CRITICAL HABITAT



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (787) 834-1600 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:
Project code: 2024-0042403
Project Name: Caguas Battery Energy Storage System

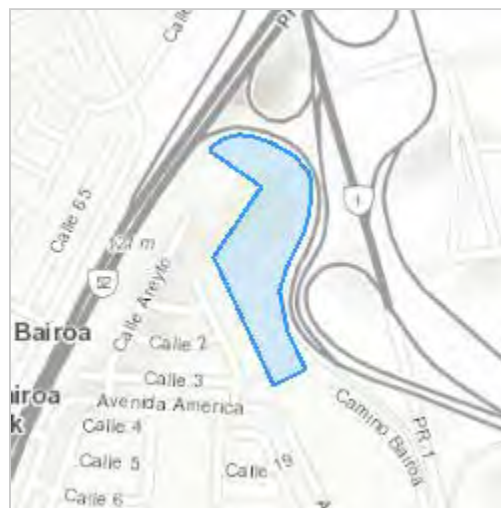
January 30, 2024

Subject: Consistency letter for the project named 'Caguas Battery Energy Storage System' for specified threatened and endangered species, that may occur in your proposed project location, pursuant to the IPaC determination key titled Caribbean Determination Key (DKey).

Dear Applicant:

Thank you for using the assisted evaluation keys in IPaC. This letter is provided pursuant to the Service's authority under the Endangered Species Act of 1973, as amended (ESA) (87 Stat. 884; 16 U.S.C. 1531et seq.). On January 30, 2024, Edgar Vázquez used the Caribbean DKey; dated January 19, 2024, in the U.S. Fish and Wildlife Service's online [IPaC application](#) to evaluate potential impacts to federally listed species, from a project named 'Caguas Battery Energy Storage System'. The project is located in Caguas County, Puerto Rico (shown below).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.2609526,-66.0391954796751,14z>



The following description was provided for the project 'Caguas Battery Energy Storage System':

Convergent proposes to develop a parcel of land located at the intersection of state roads PR-1/PR-52, Barrio Bairoa, Caguas, Puerto Rico. The property proposed for the Caguas Battery Energy Storage System (Caguas BESS) project consists of one (1) parcel identified with cadastral number 199-054-725-22-000. The project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 25 MW of electrical energy, inverters and transformers occupying an area of 2.5 cuerdas or 9,825.99 m². Steel poles will also be installed for the transmission lines and power lines. In addition, an access and internal roads and five (5) parking lots will be built. The project will be interconnected through a 38 kV connection with the Bairoa Transmission Center in the municipality of Caguas via a 38 kV sub-transmission line that borders the parcel. Connections will be made to the telecommunications, water and state electricity services, and prior to construction, connection points will be requested, according to the recommendations of the entities involved. It is estimated that the cut and fill will be balanced and no demolition of structures is anticipated.

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

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

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

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

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

Note: Projects located within the range of the Puerto Rican boa or the Virgin Islands tree boa might encounter these species during project activities. **This letter does not provide take to handle or move these species.** If relocation of the species is needed, please contact either the

Puerto Rico Department of Natural Resources (DNER) at 787-724-5700, 787-230-5550, or 787-771-1124 for projects in Puerto Rico, or the Virgin Islands Department of Planning and Natural Resources, Division of Fish and Wildlife (DFW) at 340-775-6762 for projects in the Virgin Islands. Otherwise, contact the Caribbean Ecological Services Field Office (caribbean_es@fws.gov) to determine whether the consultation needs to be reinitiated.

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

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

Action Description

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

1. Name

Caguas Battery Energy Storage System

2. Description

The following description was provided for the project 'Caguas Battery Energy Storage System':

Convergent proposes to develop a parcel of land located at the intersection of state roads PR-1/PR-52, Barrio Bairoa, Caguas, Puerto Rico. The property proposed for the Caguas Battery Energy Storage System (Caguas BESS) project consists of one (1) parcel identified with cadastral number 199-054-725-22-000. The project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 25 MW of electrical energy, inverters and transformers occupying an area of 2.5 cuerdas or 9,825.99 m². Steel poles will also be installed for the transmission lines and power lines. In addition, an access and internal roads and five (5) parking lots will be built. The project will be interconnected through a 38 kV connection with the Bairoa Transmission Center in the municipality of Caguas via a 38 kV sub-transmission line that borders the parcel. Connections will be made to the telecommunications, water and state electricity services, and prior to construction, connection points will be requested, according to the recommendations of the entities involved. It is estimated that the cut and fill will be balanced and no demolition of structures is anticipated.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.2609526,-66.0391954796751,14z>



QUALIFICATION INTERVIEW

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

No

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

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

Yes

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

Automatically answered

Yes

IPAC USER CONTACT INFORMATION

Agency: ACEnvironmental, Inc.
Name: Edgar Vázquez
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State: PR
Zip: 00622
Email: evazquez.ace@gmail.com
Phone: 7875671301

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Energy



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
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Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:
Project code: 2024-0042403
Project Name: Caguas Battery Energy Storage System

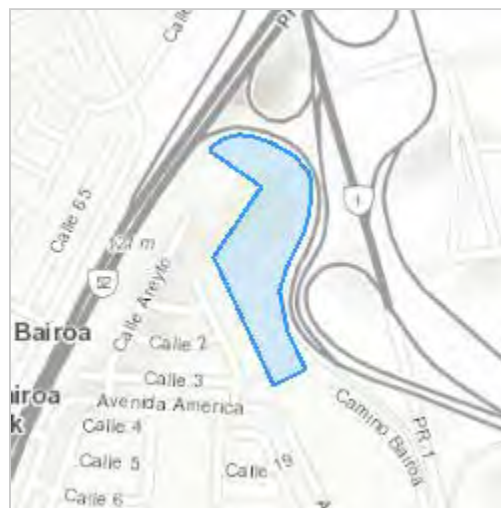
January 30, 2024

Subject: Consistency letter for the project named 'Caguas Battery Energy Storage System' for specified threatened and endangered species, that may occur in your proposed project location, pursuant to the IPaC determination key titled Caribbean Determination Key (DKey).

Dear Applicant:

Thank you for using the assisted evaluation keys in IPaC. This letter is provided pursuant to the Service's authority under the Endangered Species Act of 1973, as amended (ESA) (87 Stat. 884; 16 U.S.C. 1531et seq.). On January 30, 2024, Edgar Vázquez used the Caribbean DKey; dated January 19, 2024, in the U.S. Fish and Wildlife Service's online [IPaC application](#) to evaluate potential impacts to federally listed species, from a project named 'Caguas Battery Energy Storage System'. The project is located in Caguas County, Puerto Rico (shown below).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.2609526,-66.0391954796751,14z>



The following description was provided for the project 'Caguas Battery Energy Storage System':

Convergent proposes to develop a parcel of land located at the intersection of state roads PR-1/PR-52, Barrio Bairoa, Caguas, Puerto Rico. The property proposed for the Caguas Battery Energy Storage System (Caguas BESS) project consists of one (1) parcel identified with cadastral number 199-054-725-22-000. The project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 25 MW of electrical energy, inverters and transformers occupying an area of 2.5 cuerdas or 9,825.99 m². Steel poles will also be installed for the transmission lines and power lines. In addition, an access and internal roads and five (5) parking lots will be built. The project will be interconnected through a 38 kV connection with the Bairoa Transmission Center in the municipality of Caguas via a 38 kV sub-transmission line that borders the parcel. Connections will be made to the telecommunications, water and state electricity services, and prior to construction, connection points will be requested, according to the recommendations of the entities involved. It is estimated that the cut and fill will be balanced and no demolition of structures is anticipated.

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

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

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

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

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

Note: Projects located within the range of the Puerto Rican boa or the Virgin Islands tree boa might encounter these species during project activities. **This letter does not provide take to handle or move these species.** If relocation of the species is needed, please contact either the

Puerto Rico Department of Natural Resources (DNER) at 787-724-5700, 787-230-5550, or 787-771-1124 for projects in Puerto Rico, or the Virgin Islands Department of Planning and Natural Resources, Division of Fish and Wildlife (DFW) at 340-775-6762 for projects in the Virgin Islands. Otherwise, contact the Caribbean Ecological Services Field Office (caribbean_es@fws.gov) to determine whether the consultation needs to be reinitiated.

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

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

Action Description

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

1. Name

Caguas Battery Energy Storage System

2. Description

The following description was provided for the project 'Caguas Battery Energy Storage System':

Convergent proposes to develop a parcel of land located at the intersection of state roads PR-1/PR-52, Barrio Bairoa, Caguas, Puerto Rico. The property proposed for the Caguas Battery Energy Storage System (Caguas BESS) project consists of one (1) parcel identified with cadastral number 199-054-725-22-000. The project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 25 MW of electrical energy, inverters and transformers occupying an area of 2.5 cuerdas or 9,825.99 m². Steel poles will also be installed for the transmission lines and power lines. In addition, an access and internal roads and five (5) parking lots will be built. The project will be interconnected through a 38 kV connection with the Bairoa Transmission Center in the municipality of Caguas via a 38 kV sub-transmission line that borders the parcel. Connections will be made to the telecommunications, water and state electricity services, and prior to construction, connection points will be requested, according to the recommendations of the entities involved. It is estimated that the cut and fill will be balanced and no demolition of structures is anticipated.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.2609526,-66.0391954796751,14z>



QUALIFICATION INTERVIEW

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

No

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

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

Yes

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

Automatically answered

Yes

IPAC USER CONTACT INFORMATION

Agency: ACEnvironmental, Inc.

Name: Edgar Vázquez

Address: PO Box 1205

City: Boqueron

State: PR

Zip: 00622

Email: evazquez.ace@gmail.com

Phone: 7875671301

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Energy

PEÑUELAS BATTERY ENERGY STORAGE SYSTEM (PEÑUELAS BESS)

FLORA AND FAUNA DESCRIPTION

The site proposed for the Peñuelas Battery Energy Storage System (Peñuelas BESS) project is located on state highway PR-127 between the municipalities of Peñuelas and Guayanilla in an area previously impacted by industrial uses associated with the operations of the former Commonwealth Oil Refining Company, Inc. (CORCO). The proposed property is located north of the Costa Sur Electrical Power Generating Plant. (See Figures 1 and 2, Annex A).

A field visit was carried out on August 28, 2023 with the purpose of validating the information provided by the federal Fish and Wildlife Service (USFWS) and identifying the species of flora and fauna on the property proposed for the Peñuelas BESS project. The property is partially paved and is disused. Evidence of past industrial uses was observed; and appears to have been used in the past as a secondary containment area for storage tanks.

The flora on the property is mainly composed of trees and bushes of white leadtree (*Leucaena leucocephala*), an invasive species, and grasses. Table 1 below summarizes the flora species observed on the property.

COMMON NAME	SCIENTIFIC NAME	REFERENCES
Gramíneas	<i>Gramineae</i>	Little, Elbert; Wadsworth, Frank; José Marrero, Árboles Comunes de Puerto Rico y las Islas Vírgenes, Editorial de la Universidad de Puerto Rico, 2001
Zarcilla (white leadtree)	<i>Leucaena leucocephala</i>	
Basora prieta (sleepy morning)	<i>Waltheria indica</i>	
Uña de gato (Cat's-claw)	<i>Pithecellobium unguis-cati</i>	Edwin & García M.O. (1990) Guía ilustrada de yerbas comunes en Puerto Rico. UPR-RCM Colegio de Ciencias Agrícolas / Servicio de Extensión Agrícola.

In general terms, because the flora associated with the project area consists mainly of white leadtree and grasses, there are few species of fauna on the property. (See Annex B – Photo documentation).

The observed fauna was represented exclusively by bird species with wide distribution in Puerto Rico. The presence of reptile or amphibian species was not observed during the field visit. Table 2 below summarizes the fauna species observed on the property.

TABLE 2 LIST OF FAUNA OBSERVED IN THE PROJECT AREA		
COMMON NAME	SCIENTIFIC NAME	REFERENCES
Ruiseñor (Mockingbird)	<i>Mimus polyglottos</i>	Raffaele, Herbert A., Una Guía a las Aves de Puerto Rico y las Islas Vírgenes. Publishing Resources, Inc. Princeton University Press. Segunda Edición. 1970.
Rolita (common ground-dove)	<i>Columbina passerina</i>	
Reinita común (bananaquit)	<i>Coereba flaveola</i>	
Comeñame (Puerto Rican bulfinch)	<i>Loxigilla portoricensis</i>	
Tortola cardosanterera (zenaida dove)	<i>Zenaida aurita</i>	

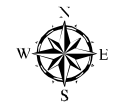
The species observed are widely distributed in Puerto Rico. No threatened or endangered species were observed on the property proposed for the Peñuelas BESS project.

The USFWS did not identify the proposed project area as critical habitat for threatened or endangered species that may inhabit the proposed project area. These are the Puerto Rican Guabairo (*Caprimulgus noctitherus*), the Puerto Rican Boa (*Epicrates inornatus*), the Bariaco (*Trichilia triacantha Bariaco*), and the Rosewood (*Ottoschulzia rhodoxylon*). During the field visit, the aforementioned species were not observed.

**ANNEX A
FIGURES**

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Scale: 1:10,000



Legend

-  Costa Sur Natural Gas Plant
-  Transmission Center
-  Peñuelas Project Parcel
-  State Road
-  Municipal Limit
-  Ward Limit

Sources:

1. Puerto Rico Highways and Transportation Authority (ACT by its acronym in Spanish), 2018.
2. Puerto Rico Planning Board, 2015.
3. Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Coordinate System: State Plane NAD83 (2011) Puerto Rico and Virgin Islands FIPS 5200 (Meters)

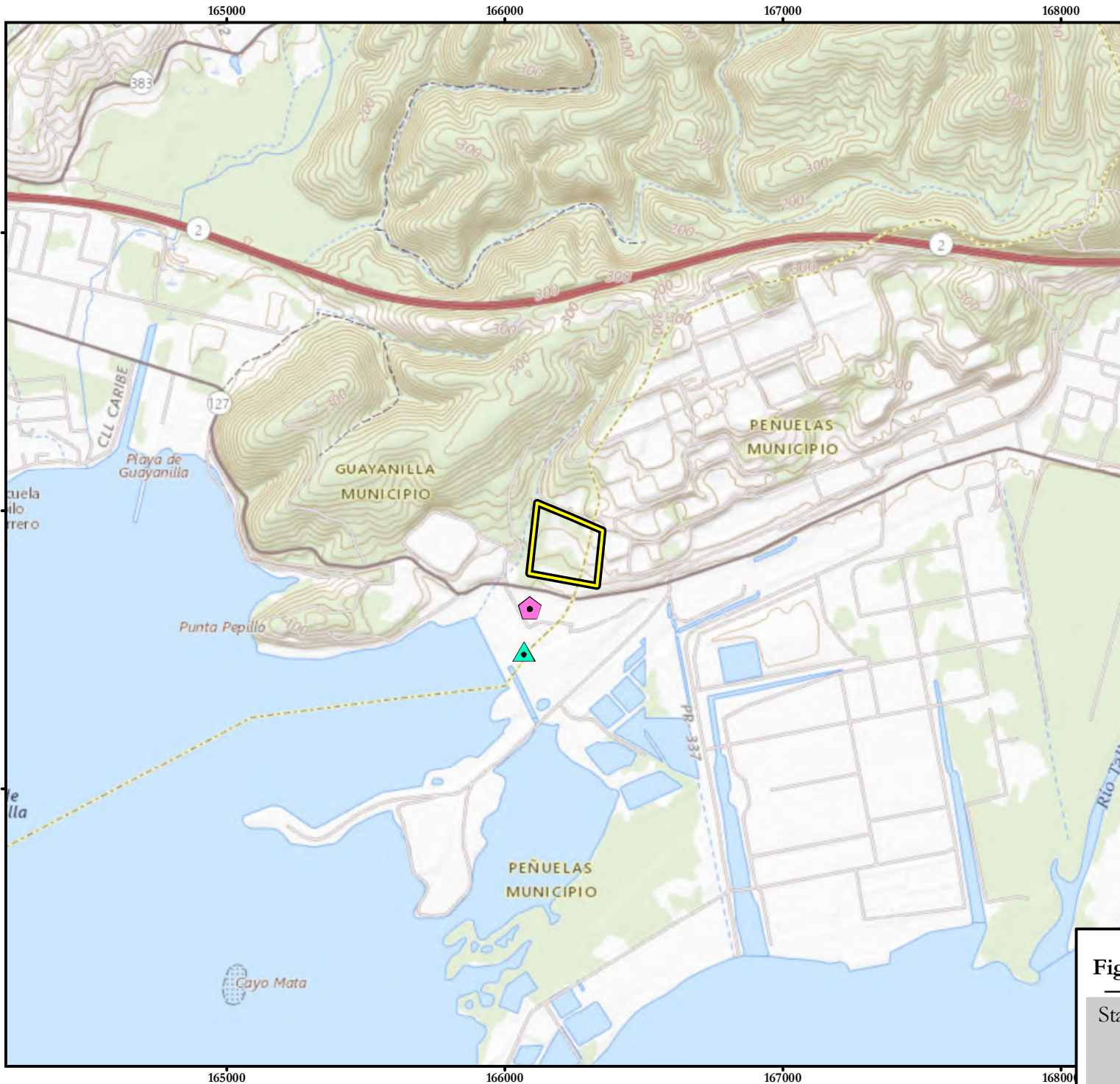


Figure 1. Aerial Photograph of the Project Site

Stage 1 – Preliminary Environmental Desktop Review
 Peñuelas-Guayanilla, Puerto Rico

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Scale: 1:20,000



Legend

-  Costa Sur Natural Gas Plant
-  Transmission Center
-  Peñuelas Project Parcel

Source:
1. United States Geological Survey (USGS) Topographic Map, 2018. Contour interval - 20 feet. Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed May, 2020.

Coordinate System: NAD 1983 (2011) State Plane Puerto Rico Virgin Islands FIPS 5200 (Meters)



Figure 2. USGS Topographic Map
Stage 1 – Preliminary Environmental Desktop Review
Peñuelas, Puerto Rico

ANNEX B
PHOTO-DOCUMENTATION



Photo #1 – View towards the south of the property proposed for the Peñuelas BESS project.



Photo #2 – View towards the west of the property proposed for the Peñuelas BESS project.



Photo #3 – White leadtree (*Leucaena leucocephala*) dominant invasive specie at the site.



Photo #4 – Cat's-claw (*Pithecellobium unguis-cati*) species observed at the site.

ANNEX C
USFWS LIST OF THREATENED OR ENDANGERED SPECIES AND DESIGNATION
OF CRITICAL HABITAT



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (787) 834-1600 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:
Project code: 2024-0041856
Project Name: Peñuelas Battery Energy Storage System

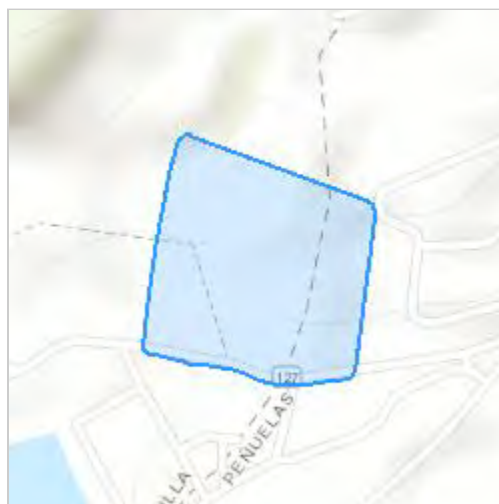
January 29, 2024

Subject: Consistency letter for the project named 'Peñuelas Battery Energy Storage System' for specified threatened and endangered species, that may occur in your proposed project location, pursuant to the IPaC determination key titled Caribbean Determination Key (DKey).

Dear Applicant:

Thank you for using the assisted evaluation keys in IPaC. This letter is provided pursuant to the Service's authority under the Endangered Species Act of 1973, as amended (ESA) (87 Stat. 884; 16 U.S.C. 1531et seq.). On January 29, 2024, Edgar Vázquez used the Caribbean DKey; dated January 19, 2024, in the U.S. Fish and Wildlife Service's online [IPaC application](#) to evaluate potential impacts to federally listed species, from a project named 'Peñuelas Battery Energy Storage System'. The project is located in Guayanilla and Peñuelas counties, Puerto Rico (shown below).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.003436649999998,-66.75238802126663,14z>



The following description was provided for the project 'Peñuelas Battery Energy Storage System':

Convergent proposes to develop a 13.90 acre or 56,251.3 square meters site on the premises of Commonwealth Oil Refining Company, Inc. (CORCO), on state road PR-385, Bo. Tallaboa between the municipalities of Peñuelas and Guayanilla, Puerto Rico. The proposed property is zoned Heavy Industrial (I-P, for its Spanish acronym) and the soils are classified as urban land (SU, for its Spanish acronym). The project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 100 MW of electrical energy, inverters and transformers occupying an area of 24,523.95 square meters. Steel poles for transmission lines and power lines will also be installed in the building. The project will be interconnected through a 115 kV connection with the South Coast SP Transmission Center, which is located directly adjacent to the project through state road PR-127.

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

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

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

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

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

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

787-771-1124 for projects in Puerto Rico, or the Virgin Islands Department of Planning and Natural Resources, Division of Fish and Wildlife (DFW) at 340-775-6762 for projects in the Virgin Islands. Otherwise, contact the Caribbean Ecological Services Field Office (caribbean_es@fws.gov) to determine whether the consultation needs to be reinitiated.

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

- Bariaco *Trichilia triacantha* Endangered
- Palo De Rosa *Ottoschulzia rhodoxylon* Threatened
- Puerto Rican Nightjar *Antrostomus noctitherus* Endangered
- West Indian Manatee *Trichechus manatus* Threatened

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

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

Action Description

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

1. Name

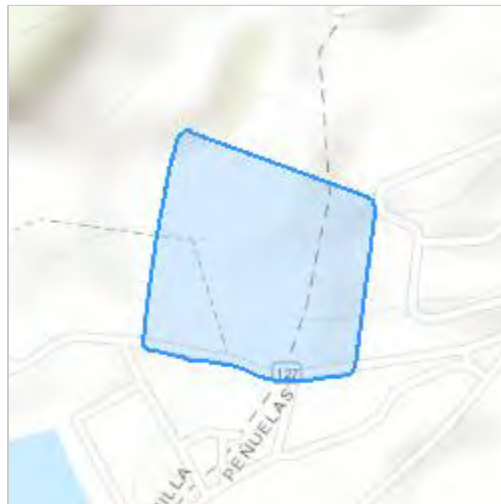
Peñuelas Battery Energy Storage System

2. Description

The following description was provided for the project 'Peñuelas Battery Energy Storage System':

Convergent proposes to to develop a 13.90 acre or 56,251.3 square meters site on the premises of Commonwealth Oil Refining Company, Inc. (CORCO), on state road PR-385, Bo. Tallaboa between the municipalities of Peñuelas and Guayanilla, Puerto Rico. The proposed property is zoned Heavy Industrial (I-P, for its Spanish acronym) and the soils are classified as urban land (SU, for its Spanish acronym). The project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 100 MW of electrical energy, inverters and transformers occupying an area of 24,523.95 square meters. Steel poles for transmission lines and power lines will also be installed in the building. The project will be interconnected through a 115 kV connection with the South Coast SP Transmission Center, which is located directly adjacent to the project through state road PR-127.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.003436649999998,-66.75238802126663,14z>



QUALIFICATION INTERVIEW

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

No

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

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

Yes

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

Automatically answered

Yes

IPAC USER CONTACT INFORMATION

Agency: ACEnvironmental, Inc.

Name: Edgar Vázquez

Address: PO Box 1205

City: Boqueron

State: PR

Zip: 00622

Email: evazquez.ace@gmail.com

Phone: 7875671301

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Energy



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (787) 834-1600 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:
Project Code: 2024-0041856
Project Name: Peñuelas Battery Energy Storage System

January 29, 2024

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

This species list is provided by:

Caribbean Ecological Services Field Office

caribbean_es@fws.gov

Post Office Box 491

Boqueron, PR 00622-0491

(786) 244-0081

Attachment(s):

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

OFFICIAL SPECIES LIST

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

This species list is provided by:

Caribbean Ecological Services Field Office

Post Office Box 491

Boqueron, PR 00622-0491

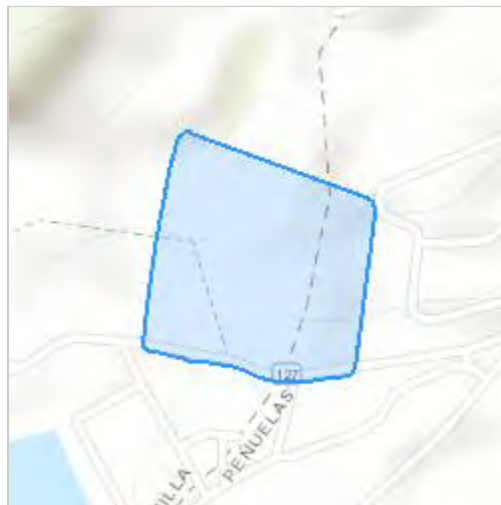
(787) 834-1600

PROJECT SUMMARY

Project Code: 2024-0041856
Project Name: Peñuelas Battery Energy Storage System
Project Type: Government / Municipal (Non-Military) Construction
Project Description: Convergent proposes to develop a 13.90 acre or 56,251.3 square meters site on the premises of Commonwealth Oil Refining Company, Inc. (CORCO), on state road PR-385, Bo. Tallaboa between the municipalities of Peñuelas and Guayanilla, Puerto Rico. The proposed property is zoned Heavy Industrial (I-P, for its Spanish acronym) and the soils are classified as urban land (SU, for its Spanish acronym). The project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 100 MW of electrical energy, inverters and transformers occupying an area of 24,523.95 square meters. Steel poles for transmission lines and power lines will also be installed in the building. The project will be interconnected through a 115 kV connection with the South Coast SP Transmission Center, which is located directly adjacent to the project through state road PR-127.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.003436649999998,-66.75238802126663,14z>



Counties: Guayanilla and Peñuelas counties, Puerto Rico

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

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

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

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

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

MAMMALS

NAME	STATUS
West Indian Manatee <i>Trichechus manatus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. <i>This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.</i> Species profile: https://ecos.fws.gov/ecp/species/4469 General project design guidelines: https://ipac.ecosphere.fws.gov/project/GWTB7J25WJBP5B24EU4ZZ7NIZM/documents/generated/7138.pdf	Threatened

BIRDS

NAME	STATUS
Puerto Rican Nightjar <i>Antrostomus noctitherus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6972	Endangered

REPTILES

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6628 General project design guidelines: https://ipac.ecosphere.fws.gov/project/GWTB7J25WJBP5B24EU4ZZ7NIZM/documents/generated/7159.pdf	Endangered

FLOWERING PLANTS

NAME	STATUS
Bariaco <i>Trichilia triacantha</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1576	Endangered
Palo De Rosa <i>Ottoschulzia rhodoxylon</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5741	Threatened

CRITICAL HABITATS

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

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

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

BALD & GOLDEN EAGLES

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

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

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

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

MIGRATORY BIRDS

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

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

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

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

MARINE MAMMALS

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act¹ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora².

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walrus, polar bears, manatees, and dugongs] and NOAA Fisheries³ [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 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.

NAME

West Indian Manatee *Trichechus manatus*

Species profile: <https://ecos.fws.gov/ecp/species/4469>

WETLANDS

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

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

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

RIVERINE

- R4SBC

IPAC USER CONTACT INFORMATION

Agency: ACEnvironmental, Inc.

Name: Edgar Vázquez

Address: PO Box 1205

City: Boqueron

State: PR

Zip: 00622

Email: evazquez.ace@gmail.com

Phone: 7875671301

PEÑUELAS BATTERY ENERGY STORAGE SYSTEM

BIOLOGICAL ANALYSIS

Prepared using IPaC

Generated by Edgar Vázquez (evazquez.ace@gmail.com)

January 29, 2024

The purpose of this document is to assess the effects of the proposed project and determine whether the project may affect any federally threatened, endangered, proposed, or candidate species. If appropriate for the project, this document may be used as a biological assessment (BA), as it is prepared in accordance with legal requirements set forth under [Section 7 of the Endangered Species Act \(16 U.S.C. 1536 \(c\)\)](#).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of January 29, 2024.

Prepared using IPaC version 6.103.0-rc1

PEÑUELAS BATTERY ENERGY STORAGE SYSTEM BIOLOGICAL ASSESSMENT

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1 DESCRIPTION OF THE ACTION

1.1 PROJECT NAME

Peñuelas Battery Energy Storage System

1.2 EXECUTIVE SUMMARY

Convergent proposes to develop a 13.90 acre or 56,251.3 square meters site on the premises of Commonwealth Oil Refining Company, Inc. (CORCO), on state road PR-385, Bo. Tallaboa between the municipalities of Peñuelas and Guayanilla, Puerto Rico. The proposed property is zoned Heavy Industrial (I-P, for its Spanish acronym) and the soils are classified as urban land (SU, for its Spanish acronym). The project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 100 MW of electrical energy, inverters and transformers occupying an area of 24,523.95 square meters. Steel poles for transmission lines and power lines will also be installed in the building. The project will be interconnected through a 115 kV connection with the South Coast SP Transmission Center, which is located directly adjacent to the project through state road PR-127.

The project is located on a previously developed industrial site. Based on the reconnaissance of the project area and taking into consideration the soils, hydrology and vegetation, it was observed that there are no natural systems that could be affected by the project. Guayanilla Bay is the closest natural system within a radius of 460 meters measured from the periphery of the project. The bay is located 300 meters southwest of the project. The Guayanilla River is located about 2.3 km west of the proposed project.

In general terms, because the flora associated with the project area consists mostly of acacia shrubs (*Leucaena leucocephala*) and grasses, there are few species of fauna on the property. The fauna observed was represented exclusively by bird species widely distributed in Puerto Rico. No reptile or amphibian species were observed during the field visit. The species observed are widely distributed in Puerto Rico and are characteristic of areas that have been impacted by urban development and which have adapted to these conditions. No threatened or endangered species were observed on the proposed project site. No critical, threatened, or endangered species were observed in the project area.

In addition, the federal Fish and Wildlife Service (USFWS) report dated April 21, 2021 corroborates the field observations by indicating that there is no critical habitat in the project area for the four (4) threatened or endangered species identified in the municipalities of Peñuelas-Guayanillas. The presence of the Puerto Rican boa (*Chilabothrus inornatus*), the Puerto Rican Nightjar (*Caprimulgus noctitherus*), the Rosewood (*Ottoschulzia rhodoxylon*), or the Bariaco (*Trichilia triacantha*) was not observed. No migratory birds, fish hatcheries or wetlands were observed. In conclusion, the proposed Action will have “No Effect” on these species.

1.3 EFFECT DETERMINATION SUMMARY

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
Bariaco	Trichilia triacantha	Endangered	No	NE
Palo De Rosa	Ottoschulzia rhodoxylon	Threatened	No	NE
Puerto Rican Boa† This species or critical habitat is covered by a DKey.	Chilabothrus inornatus	Endangered		NE
Puerto Rican Nightjar	Antrostomus noctitherus	Endangered	No	NE
West Indian Manatee	Trichechus manatus	Threatened	No	NE

† This species or critical habitat is covered by a DKey.

1.4 PROJECT DESCRIPTION

1.4.1 LOCATION



LOCATION

Guayanilla and Peñuelas counties, Puerto Rico

1.4.2 DESCRIPTION OF PROJECT HABITAT

The previously developed property has an approximate area of 56,251.3 square meters located on the premises of Commonwealth Oil Refining Company, Inc. (CORCO), on PR-385 Highway, in Bo. Tallaboa between the municipalities of Peñuelas and Guayanilla, Puerto Rico. The proposed property is zoned Heavy Industrial (I-P for its Spanish acronym) and the soils are classified as urban land (SU for its Spanish acronym).

1.4.3 PROJECT PROPONENT INFORMATION

Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.

REQUESTING AGENCY

ACEnvironmental, Inc.

FULL NAME

Edgar Vázquez

STREET ADDRESS

PO Box 1205

CITY

Boqueron

STATE

PR

ZIP

00622

PHONE NUMBER

7875671301

E-MAIL ADDRESS

evazquez.ace@gmail.com

LEAD AGENCY

Department of Energy

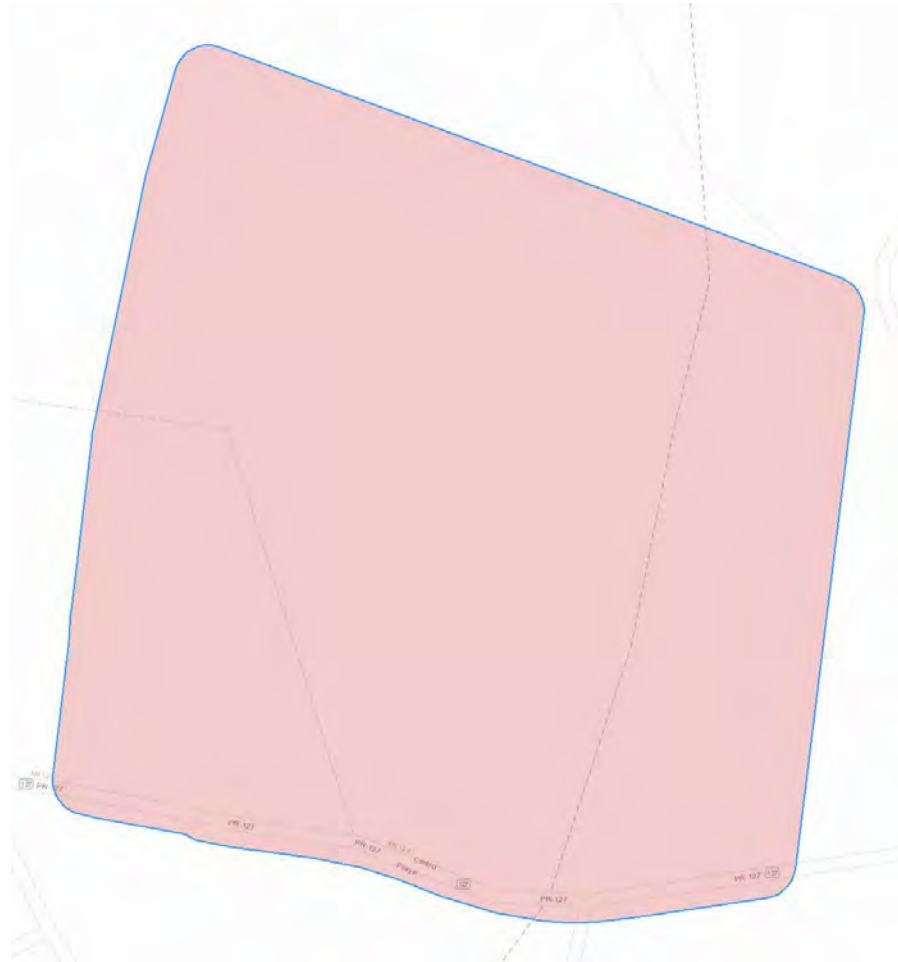
1.4.4 PROJECT PURPOSE

Convergent proposes to develop a property owned by RL Partners, LLC, located on the property of Commonwealth Oil Refining Company, Inc. (CORCO), on PR-385 Road, Bo. Tallaboa between the municipalities of Peñuelas and Guayanilla, Puerto Rico. The proposed project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 100 MW of electrical energy, inverters and transformers occupying an area of 24,523.95 m². Steel poles for transmission lines and power lines will also be installed in the building. The project will interconnect through a 115 kV connection with the South Coast SP Transmission Center, which is directly adjacent to the project via PR 127. The project as proposed will provide about 100 MW to Puerto Rico's electrical system.

1.4.5 PROJECT TYPE AND DECONSTRUCTION

This project is a battery emergency storage system project.

1.4.5.1 PROJECT MAP



LEGEND



Project footprint



Peñuelas BESS: Peñuelas battery energy storage system

1.4.5.2 PEÑUELAS BATTERY ENERGY STORAGE SYSTEM

ACTIVITY START DATE

January 01, 2025

ACTIVITY END DATE

December 31, 2025

STRESSORS

This activity is not expected to have any impact on the environment.

DESCRIPTION

Convergent proposes to develop a 13.90 acre or 56,251.3 square meters site on the premises of Commonwealth Oil Refining Company, Inc. (CORCO), on state road PR-385, Bo. Tallaboa between the municipalities of Peñuelas and Guayanilla, Puerto Rico. The proposed property is zoned Heavy Industrial (I-P, for its Spanish acronym) and the soils are classified as urban land (SU, for its Spanish acronym). The project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 100 MW of electrical energy, inverters and transformers occupying an area of 24,523.95 square meters. Steel poles for transmission lines and power lines will also be installed in the building. The project will be interconnected through a 115 kV connection with the South Coast SP Transmission Center, which is located directly adjacent to the project through state road PR-127.

1.4.6 ANTICIPATED ENVIRONMENTAL STRESSORS

Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.

1.6 CONSERVATION MEASURES

Describe any proposed measures being implemented as part of the project that are designed to reduce the impacts to the environment and their resulting effects to listed species. To avoid extra verbiage, don't list measures that have no relevance to the species being analyzed.

No conservation measures have been selected for this project.

1.7 PRIOR CONSULTATION HISTORY

There is no formal consultation for this project with the USFWS. An species list was obtained from the IPAc site on 2021.

1.8 OTHER AGENCY PARTNERS AND INTERESTED PARTIES

Convergent Peñuelas Energy Storage 1 LLC (Convergent)

Contact:

CWL Legal Services, P.S.C.

173 Calle O'Neill, San Juan, P.R. 00918

(787) 705-9043

carlos@cwlegal.com

1.9 OTHER REPORTS AND HELPFUL INFORMATION

RELEVANT DOCUMENTATION

- [Flora and Fauna Penuelas BESS](#)

2 SPECIES EFFECTS ANALYSIS

This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).

These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.

2.1 BARIACO

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- [Flora and Fauna Peñuelas BESS](#)

JUSTIFICATION FOR EXCLUSION

The species observed during the field visit are widely distributed in Puerto Rico. No threatened or endangered species were observed on the proposed Peñuelas BESS project site. The USFWS did not identify the proposed project area as critical habitat for threatened or endangered species that may inhabit the proposed property. These are the Puerto Rican Nightjar (*Caprimulgus noctitherus*), Puerto Rican Boa (*Epicrates inornatus*), Bariaco (*Trichilia triacantha* Bariaco), and Palo De Rosa (*Ottoschulzia rhodoxylon*). The aforementioned species were not observed during the field visit.

2.2 PALO DE ROSA

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- [Flora and Fauna Penuelas BESS](#)

JUSTIFICATION FOR EXCLUSION

The species observed are widely distributed in Puerto Rico. No threatened or endangered species were observed on the proposed Peñuelas BESS project site. The USFWS did not identify the proposed project area as critical habitat for threatened or endangered species that may inhabit the proposed property. These are the Puerto Rican Nightjar (*Caprimulgus noctitherus*), Puerto Rican Boa (*Epicrates inornatus*), Bariaco (*Trichilia triacantha* Bariaco), and Palo De Rosa (*Ottoschulzia rhodoxylon*). The aforementioned species were not observed during the field visit.

2.3 PUERTO RICAN NIGHTJAR

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- [Flora and Fauna Penuelas BESS](#)

JUSTIFICATION FOR EXCLUSION

The species observed are widely distributed in Puerto Rico. No threatened or endangered species were observed on the proposed Peñuelas BESS project site. The USFWS did not identify the proposed project area as critical habitat for threatened or endangered species that may inhabit the proposed property. These are the Puerto Rican Nightjar (*Caprimulgus noctitherus*), Puerto Rican Boa (*Epicrates inornatus*), Bariaco (*Trichilia triacantha* Bariaco), and Palo De Rosa (*Ottoschulzia rhodoxylon*). The aforementioned species were not observed during the field visit.

2.4 WEST INDIAN MANATEE

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- [Flora and Fauna Penuelas BESS](#)

JUSTIFICATION FOR EXCLUSION

The species observed are widely distributed in Puerto Rico. No threatened or endangered species were observed on the proposed Peñuelas BESS project site. The USFWS did not identify the proposed project area as critical habitat for threatened or endangered species that may inhabit the proposed property. These are the Puerto Rican Nightjar (*Caprimulgus noctitherus*), Puerto Rican Boa (*Epicrates inornatus*), Bariaco (*Trichilia triacantha* Bariaco), and Palo De Rosa (*Ottoschulzia rhodoxylon*). The aforementioned species were not observed during the field visit.

3 CRITICAL HABITAT EFFECTS ANALYSIS

No critical habitats intersect with the project action area.

4 SUMMARY DISCUSSION AND CONCLUSION

4.1 SUMMARY DISCUSSION

Convergent proposes to develop a 13.90 acre or 56,251.3 square meters site on the premises of Commonwealth Oil Refining Company, Inc. (CORCO), on state road PR-385, Bo. Tallaboa between the municipalities of Peñuelas and Guayanilla, Puerto Rico. The proposed property is zoned Heavy Industrial (I-P, for its Spanish acronym) and the soils are classified as urban land (SU, for its Spanish acronym). The project consists of the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 100 MW of electrical energy, inverters and transformers occupying an area of 24,523.95 square meters. Steel poles for transmission lines and power lines will also be installed in the building. The project will be interconnected through a 115 kV connection with the South Coast SP Transmission Center, which is located directly adjacent to the project through state road PR-127.

Based on the reconnaissance of the project area and taking into consideration the soils, hydrology and vegetation, it was observed that there are no natural systems that could be affected by the project. Guayanilla Bay is the closest natural system within a radius of 460 meters measured from the periphery of the project. The bay is located 300 meters southwest of the project. The Guayanilla River is located about 2.3 km west of the proposed project.

The project is located on a previously developed industrial site.

In general terms, because the flora associated with the project area consists mostly of acacia shrubs (*Leucaena leucocephala*) and grasses, there are few species of fauna on the property. (See Table 1). The fauna observed was represented exclusively by bird species widely distributed in Puerto Rico. No reptile or amphibian species were observed during the field visit. The species observed are widely distributed in Puerto Rico and are characteristic of areas that have been impacted by urban development and which have adapted to these conditions (See Table 2). No threatened or endangered species were observed on the proposed project site. No critical, threatened, or endangered species were observed in the project area.

In addition, the federal Fish and Wildlife Service (USFWS) report dated April 21, 2021 corroborates the field observations by indicating that there is no critical habitat in the project area for the four (4) threatened or endangered species identified in the municipalities of Peñuelas-Guayanillas. The presence of the Puerto Rican boa (*Chilabothrus inornatus*), the Puerto Rican Nightjar (*Caprimulgus noctitherus*), the Rosewood (*Ottoschulzia rhodoxylon*), or the Bariaco (*Trichilia triacantha*) was not observed. No migratory birds, fish hatcheries or wetlands were observed.

4.2 CONCLUSION

The project is located on a previously developed industrial site. Based on the reconnaissance of the project area and taking into consideration the soils, hydrology and vegetation, it was observed that there are no natural systems that could be affected by the project. Guayanilla Bay is the closest natural system within a radius of 460 meters measured from the periphery of the project. The bay is located 300 meters southwest of the project. The Guayanilla River is located about 2.3 km west of the proposed project.

In general terms, because the flora associated with the project area consists mostly of acacia shrubs (*Leucaena leucocephala*) and grasses, there are few species of fauna on the property. The fauna observed was represented exclusively by bird species widely distributed in Puerto Rico. No reptile or amphibian species were observed during the field visit. The species observed are widely distributed in Puerto Rico and are characteristic of areas that have been impacted by urban development and which have adapted to these conditions. No threatened or endangered species were observed on the proposed project site. No critical, threatened, or endangered species were observed in the project area.

In addition, the federal Fish and Wildlife Service (USFWS) report dated April 21, 2021 corroborates the field observations by indicating that there is no critical habitat in the project area for the four (4) threatened or endangered species identified in the municipalities of Peñuelas-Guayanillas. The presence of the Puerto Rican boa (*Chilabothrus inornatus*), the Puerto Rican Nightjar (*Caprimulgus noctitherus*), the Rosewood (*Ottoschulzia rhodoxylon*), or the Bariaco (*Trichilia triacantha*) was not observed. No migratory birds, fish hatcheries or wetlands were observed. In conclusion, the proposed Action will have “No Effect” on these species.

PONCE BATTERY ENERGY STORAGE SYSTEM (PONCE BESS)

FLORA AND FAUNA DESCRIPTION

The proposed site for the Ponce Battery Energy Storage System (Ponce BESS) project is located on state highway PR-511 Interior, Barrio Coto Laurel, Ponce, Puerto Rico. The proposed project site consists of three parcels identified as Parcel A, Parcel B and Parcel C for the purposes of this document. Figures 1 and 2 in Annex A identify the three parcels that make up the Ponce BESS project proposed site.

A field visit was carried out on August 28, 2023 with the purpose of validating the information provided by the federal Fish and Wildlife Service (USFWS) and identifying the species of flora and fauna on the property proposed for the Ponce BESS project. Plot A is flat and in disuse. Grasses dominate and some trees such as white leadtree (zarcilla), eucalyptus spp. and cat's-claw (uña de gato) were observed. Plot B is flat, in disuse and completely covered with grasses. Plot C is flat, with some grasses and a large portion of the plot is paved. In plot C, industrial uses predominate; we observed, an office trailer, heavy equipment and parts of heavy equipment. See photo-documentation in Annex B.

The flora on the property is mainly composed of trees and tendril bushes (*Leucaena leucocephala*), an invasive species, and grasses. Table 1 below summarizes the flora observed on the property.

COMMON NAME	SCIENTIFIC NAME	REFERENCES
Grasses	<i>Gramineae</i>	Little, Elbert; Wadsworth, Frank; José Marrero, Árboles Comunes de Puerto Rico y las Islas Vírgenes, Editorial de la Universidad de Puerto Rico, 2001 Edwin & García M.O. (1990) Guía ilustrada de yerbas comunes en Puerto Rico. UPR-RCM Colegio de Ciencias Agrícolas / Servicio de Extensión Agrícola.
White leadtree (Zarcilla)	<i>Leucaena leucocephala</i>	
Eucalipto	<i>Eucalyptus deglupta</i>	
Cat's-Claw (Uña de gato)	<i>Pithecellobium unguis-cati</i>	

In general terms, because the flora associated with the project area consists mainly of grasses and tendrils, there are few species of fauna on the property. (See Annex B – Photo documentation).

The observed fauna was represented exclusively by bird species with wide distribution in Puerto Rico. The presence of reptile or amphibian species was not observed during the field visit.

TABLE 2 FAUNA OBSERVED IN THE PROPOSED PROJECT SITE		
NOMBRE COMÚN	NOMBRE CIENTÍFICO	REFERENCIAS
Ruiseñor (Mockingbird)	<i>Mimus polyglottos</i>	Raffaele, Herbert A., Una Guía a las Aves de Puerto Rico y las Islas Vírgenes. Publishing Resources, Inc. Princeton University Press. Segunda Edición. 1970.
Rolita (common ground-dove)	<i>Columbina passerina</i>	
Reinita común (bananaquit)	<i>Coereba flaveola</i>	
Chango (Greater Antillean Grackle)	<i>Quiscalus niger</i>	
Falcon común (American Kestrel)	<i>Falco sparverius</i>	

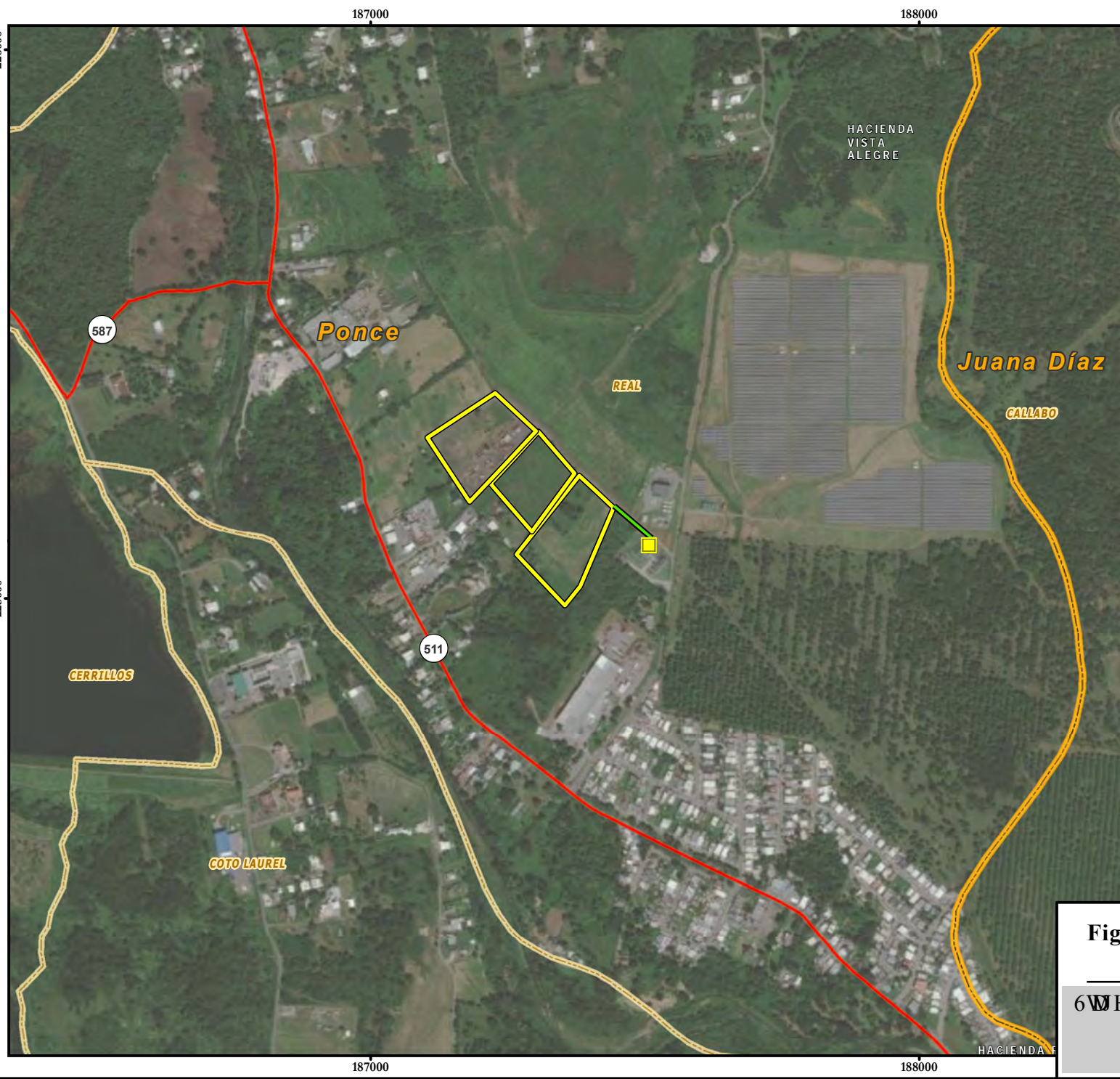
The species observed are widely distributed in Puerto Rico. No threatened or endangered species were observed on the property proposed for the Ponce BESS project.

The USFWS did not identify the proposed project site as a critical habitat for the threatened or endangered species that may inhabit the proposed site. The only endangered species that may inhabit the proposed site is the Puerto Rican Boa (*Epicrates inornatus*). During the field visit, the Puerto Rican Boa was not observed.

**ANNEX A
FIGURES**

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 csage e vazquez 11/10/2022



6 FDDH 1:10,000



Legend

- 6 XEWMRQ
- * HQ WH
- 3 URMF3 DUFHV
- 6 WAM5 RDG
- 0 XQFISDV IP LW
- : DUG/ IP LW

6RXLFH
 1. 3XHW5 IFR+ IJKZ D VDDG7 UDO6SRUWRQ
 \$ XWRIDW (\$ &7 E) DVIDURQ P IQ6SDQK,
 2020.
 2. 3XHW5 IFR3 QDQIQ %RDLG 2015.
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 (0 HMLJ)



Figure 1. Aerial Photograph of the Project Site
 6 W H1 ± 3 UHOP IQDU (QMLRCP HQWO
 ' HNNRS 5 HMLZ
 3 RQFH 3 XHW5 IFR

ANNEX B
PHOTO-DOCUMENTATION



Photo #1 – View to the south of Parcel A, proposed for the Ponce BESS project.



Photo #2 – View to the west of Parcel A, proposed for the Ponce BESS project.



Photo #3 – White leadtree [zarcilla] (*Leucaena leucocephala*) dominant invasive species at the project site.



Photo #4 – View to the south of Parcel B, proposed for the Ponce BESS project.



Photo #5 – View to the west of Parcel B, proposed for the Ponce BESS project.



Photo #6 – View to the west of Parcel C, proposed for the Ponce BESS project.



Photo #7 – View to the south of Parcel C, proposed for the Ponce BESS project.

ANNEX C
USFWS LIST OF THREATENED OR ENDANGERED SPECIES AND DESIGNATION
OF CRITICAL HABITAT



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (787) 834-1600 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:
Project code: 2024-0041751
Project Name: Ponce Battery Energy Storage System

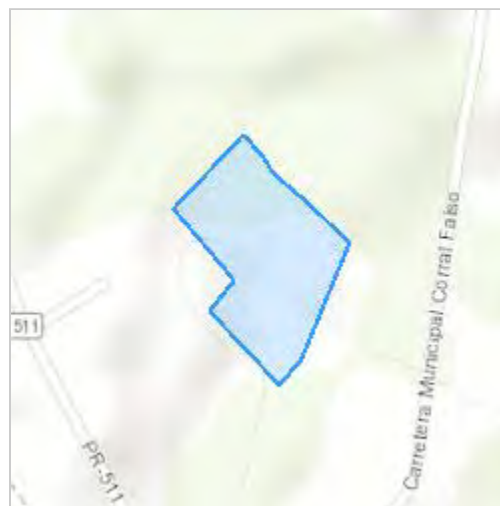
January 29, 2024

Subject: Consistency letter for the project named 'Ponce Battery Energy Storage System' for specified threatened and endangered species, that may occur in your proposed project location, pursuant to the IPaC determination key titled Caribbean Determination Key (DKey).

Dear Applicant:

Thank you for using the assisted evaluation keys in IPaC. This letter is provided pursuant to the Service's authority under the Endangered Species Act of 1973, as amended (ESA) (87 Stat. 884; 16 U.S.C. 1531et seq.). On January 29, 2024, Edgar Vázquez used the Caribbean DKey; dated January 19, 2024, in the U.S. Fish and Wildlife Service's online [IPaC application](#) to evaluate potential impacts to federally listed species, from a project named 'Ponce Battery Energy Storage System'. The project is located in Ponce County, Puerto Rico (shown below).

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.06047495,-66.55277684806185,14z>



The following description was provided for the project 'Ponce Battery Energy Storage System':

Convergent proposes to construct the Project at the Municipality of Ponce, Puerto Rico (see Figure 1). The Project will develop, build, and operate a Battery Energy Storage System (BESS) through the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 25 MW of electrical energy organized on two adjacent properties located in the municipality of Ponce. Steel poles for transmission lines and power lines will also be installed. In addition, an access and internal roads and five (5) parking lots will be built. The project will be interconnected through a 38 kV connection with the Juana Diaz Transmission Center in the municipality of Ponce via a 38 kV sub-transmission line that will run along Camino Falso for approximately 900 feet. The Project site is accessed through State Road PR-511, Km. 1.3, Barrio Real, Ponce, Puerto Rico.

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

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

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

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

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

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

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

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

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

Action Description

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

1. Name

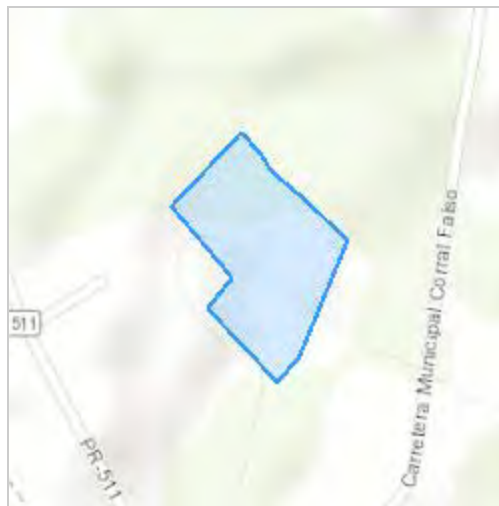
Ponce Battery Energy Storage System

2. Description

The following description was provided for the project 'Ponce Battery Energy Storage System':

Convergent proposes to construct the Project at the Municipality of Ponce, Puerto Rico (see Figure 1). The Project will develop, build, and operate a Battery Energy Storage System (BESS) through the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 25 MW of electrical energy organized on two adjacent properties located in the municipality of Ponce. Steel poles for transmission lines and power lines will also be installed. In addition, an access and internal roads and five (5) parking lots will be built. The project will be interconnected through a 38 kV connection with the Juana Diaz Transmission Center in the municipality of Ponce via a 38 kV sub-transmission line that will run along Camino Falso for approximately 900 feet. The Project site is accessed through State Road PR-511, Km. 1.3, Barrio Real, Ponce, Puerto Rico.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.06047495,-66.55277684806185,14z>



QUALIFICATION INTERVIEW

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

No

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

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

Yes

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

Automatically answered

Yes

IPAC USER CONTACT INFORMATION

Agency: ACEnvironmental, Inc.

Name: Edgar Vázquez

Address: PO Box 1205

City: Boqueron

State: PR

Zip: 00622

Email: evazquez.ace@gmail.com

Phone: 7875671301

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Energy



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
Phone: (787) 834-1600 Fax: (787) 851-7440
Email Address: CARIBBEAN_ES@FWS.GOV

In Reply Refer To:
Project Code: 2024-0041751
Project Name: Ponce Battery Energy Storage System

January 29, 2024

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

This species list is provided by:

Caribbean Ecological Services Field Office

caribbean_es@fws.gov

Post Office Box 491

Boqueron, PR 00622-0491

(786) 244-0081

Attachment(s):

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

OFFICIAL SPECIES LIST

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

This species list is provided by:

Caribbean Ecological Services Field Office

Post Office Box 491

Boqueron, PR 00622-0491

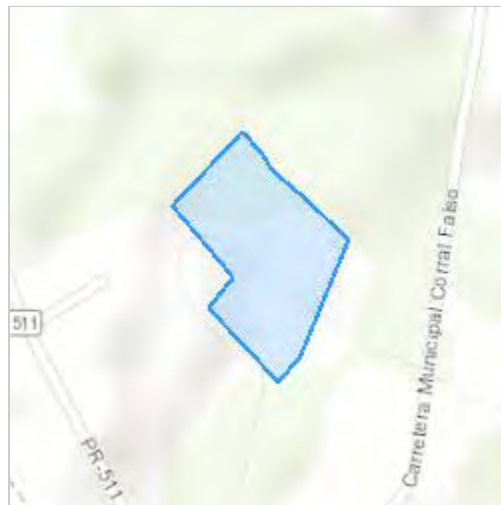
(787) 834-1600

PROJECT SUMMARY

Project Code: 2024-0041751
Project Name: Ponce Battery Energy Storage System
Project Type: Government / Municipal (Non-Military) Construction
Project Description: Convergent proposes to construct the Project at the Municipality of Ponce, Puerto Rico (see Figure 1). The Project will develop, build, and operate a Battery Energy Storage System (BESS) through the construction of an operation and maintenance structure, a substation, the installation, on concrete foundations, of containers with batteries for the storage of 25 MW of electrical energy organized on two adjacent properties located in the municipality of Ponce. Steel poles for transmission lines and power lines will also be installed. In addition, an access and internal roads and five (5) parking lots will be built. The project will be interconnected through a 38 kV connection with the Juana Diaz Transmission Center in the municipality of Ponce via a 38 kV sub-transmission line that will run along Camino Falso for approximately 900 feet. The Project site is accessed through State Road PR-511, Km. 1.3, Barrio Real, Ponce, Puerto Rico.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.06047495,-66.55277684806185,14z>



Counties: Ponce County, Puerto Rico

ENDANGERED SPECIES ACT SPECIES

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

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

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

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

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

REPTILES

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6628 General project design guidelines: https://ipac.ecosphere.fws.gov/project/P3VUQEFQZGM5MRPFYQJ3FN4CU/documents/generated/7159.pdf	Endangered

CRITICAL HABITATS

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

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

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

BALD & GOLDEN EAGLES

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

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

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

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

MIGRATORY BIRDS

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

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

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

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

WETLANDS

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

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

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

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: ACEnvironmental, Inc.

Name: Edgar Vázquez

Address: PO Box 1205

City: Boqueron

State: PR

Zip: 00622

Email: evazquez.ace@gmail.com

Phone: 7875671301