NFEnergía LLC

San Juan Micro-Fuel Handling Facility

Resource Report 2
Water Use and Quality

Docket No.
CP21-___-000

September 15, 2021

NFEnergía LLC
SAN JUAN MICRO-FUEL HANDLING FACILITY
RESOURCE REPORT 2—WATER USE AND QUALITY

Minimum Filing Requirements for Environmental Reports:	Addressed in Section:
1. Identify and describe by milepost perennial waterbodies and municipal water supply or watershed areas, specially designated surface water protection areas and sensitive waterbodies, and wetlands that would be crossed. For each waterbody crossing, identify the approximate width, state water quality classifications, any known potential pollutants present in the water or sediments, and any potable water intake sources within 3 miles downstream. Title 18 Code of Federal Regulations ("CFR") part 380.12(d)(1).	Section 2.2.1 through Section 2.2.4
2. Compare proposed mitigation measures with the staff's current "Wetland and Waterbody Construction and Mitigation Procedures," which are available from the Commission Internet home page or the Commission staff, describe what proposed alternative mitigation would provide equivalent or greater protection to the environment, and provide a description of site- specific construction techniques that would be used at each major waterbody crossing. 18 CFR 380.12(d)(2).	Not Applicable
3. Describe typical staging area requirements at waterbody and wetland crossings. Also, identify and describe waterbodies and wetlands where staging areas are likely to be more extensive. 18 CFR 380.12(d)(3).	Not Applicable
4. Include National Wetlands Inventory ("NWI") maps. If NWI maps are not available, provide the appropriate state wetland maps. Identify for each crossing, the milepost, the wetland classification specified by the U.S. Fish and Wildlife Service, and the length of the crossing. Include two copies of the NWI maps (or the substitutes, if NWI maps are not available) clearly showing the proposed route and mileposts directed to the environmental staff. Describe by milepost, wetland crossings as determined by field delineations using the current Federal methodology. 18 CFR 380.12(d)(4).	Section 2.3.2
5. Identify aquifers within excavation depth in the project area, including the depth of the aquifer, current and projected use, water quality and average yield, and known or suspected contamination problems. 18 CFR 380.12(d)(5).	Not Applicable
6. Describe specific locations, the quantity required, and the method and rate of withdrawal and discharge of hydrostatic test water. Describe suspended or dissolved material likely to be present in the water as a result of contact with the pipeline, particularly if an existing pipeline is being retested. Describe chemical or physical treatment of the pipeline or hydrostatic test water. Discuss waste products generated and disposal methods. 18 CFR 380.12(d)(6).	Not Applicable
7. If underground storage of natural gas is proposed: (i) Identify how water produced from the storage field will be disposed of, and (ii) For salt caverns, identify the source locations, the quantity required, and the method and rate of withdrawal of water for creating salt cavern(s), as well as the means of disposal of brine resulting from cavern leaching. 18 CFR 380.12(d)(7).	Not Applicable
8. Discuss proposed mitigation measures to reduce the potential for adverse impacts to surface water, wetlands, or groundwater quality to the extent they are not described in response to paragraph (d)(2) of this section. Discuss the potential for blasting to affect water wells, springs, and wetlands, and measures to be taken to detect and remedy such effects. 18 CFR 380.12(d)(8).	Section 2.2.5
9. Identify the location of known public and private groundwater supply wells or springs within 150 feet of proposed construction areas. Identify locations of United States Environmental Protection Agency or state-designated sole source aquifers and wellhead protection areas crossed by the proposed pipeline facilities. 18 CFR 380.12(d)(9).	Section 2.1.2

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ACRONYMS AND ABBREVIATIONS

CFR	Code of Federal Regulations
FERC	Federal Energy Regulatory Commission
FSU	floating storage unit
HUC	hydrologic unit code
LNG	liquefied natural gas
MARPOL	International Convention for the Prevention of Pollution
MFH Facility	San Juan Micro-Fuel Handling Facility
MGPS	Marine Growth Prevention System
NFEnergía	NFEnergía LLC
nm	nautical miles
NWI	National Wetland Inventory
PRDNR	Puerto Rico Department of Natural and Environmental Resources
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VGP	Vessel General Permit

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2.0 RESOURCE REPORT 2—WATER USE AND QUALITY

NFEnergía LLC ("NFEnergía") is seeking authorization from the Federal Energy Regulatory Commission ("FERC") under Section 3 of the Natural Gas Act to continue operating the San Juan Micro-Fuel Handling Facility ("MFH Facility"), a liquefied natural gas ("LNG") import and regasification facility. The MFH Facility is located on approximately 6.1 paved and fenced acres of an industrial area at Wharves A and B of the Puerto de San Juan (Port of San Juan), Puerto Rico, which is situated among existing industrial uses in the north of Puerto Rico where it can supply power generation sources serving nearby load centers using minimal additional infrastructure. To operate the MFH Facility, "pocket-sized" LNG vessels (also called "shuttle vessels") bring LNG into the San Juan Harbor where the LNG is transferred from the shuttle vessel to a non-jurisdictional floating storage unit ("FSU") vessel that is semi-permanently moored adjacent to the MFH Facility site. The FSU transfers LNG onshore where certain quantities remain liquefied and are transloaded onto trucks for over-the-road delivery to end users and certain quantities are regasified and made available to Units 5 and 6 of the adjacent San Juan Power Plant via a 75-foot long, 10-inch diameter segment of power plant piping. The MFH Facility has a regasification capacity of 130 million standard cubic feet per day and a truck loading capacity of 87.52 million standard cubic feet per day.

NFEnergía initially developed the MFH Facility to serve its commercial customers via a truck loading operation for distribution of LNG for regasification and use at behind-the-fence power generation facilities across Puerto Rico—typically multinational companies with manufacturing operations. In July 2018, Puerto Rico Electric Power Authority ("PREPA") issued a request for proposals to retrofit Units 5 and 6 of the San Juan Power Plant to enable dual-fuel capability and to supply PREPA with natural gas. NFEnergía participated in that competitive process and was chosen as the successful bidder. PREPA and NFEnergía entered into a contract to effectuate the award in March 2019 and the MFH Facility began operating in March 2020 and became fully operational in May 2020.

FERC's National Environmental Policy Act review process requires that an applicant submit an Environmental Report consisting of up to 13 individual resource reports. This resource report is consistent with and meets or exceeds all applicable FERC filing requirements. A checklist showing the status of FERC's filing requirements for Resource Report 2 (18 Code of Federal Regulations ["CFR"] § 380.12) is included before the table of contents.

Resource Report 2 describes water use and quality and provides data sufficient to determine impacts from the MFH Facility on water quality and water resources. In addition, this report discusses mitigation and protective measures to be implemented by NFEnergía to minimize impacts on water resources.

2.1 Groundwater Resources

2.1.1 Designated Sole Source Aquifers

The United States Environmental Protection Agency ("USEPA") "defines a sole or principal source aquifer as an aquifer that supplies at least 50 percent of potable water consumed in the

area overlying the aquifer. These areas may have no alternative drinking water source(s) that could physically, legally, and economically supply all those who depend on the aquifer for drinking water" (USEPA, 2008). For convenience, the USEPA refers to all designated sole or principal source aquifers as "sole source aquifers" (USEPA, 2008).

There are currently no USEPA-designated sole source aquifers in Puerto Rico (USEPA, 2020). The Puerto Rico Department of Natural and Environmental Resources ("PRDNR") has not designated sole source aquifers on a territory/commonwealth level.

The United States Geological Survey ("USGS") defines a principal aquifer as a regionally extensive aquifer or aquifer system with the potential to be used as a source of potable water (USGS, 2014). The MFH Facility is intersected by a principal aquifer that is overlain by a "confining unit" (figure 2-1 in appendix 2A). Confining units are areas that are underlain by low-permeability deposits and rocks and aquifers overlain by confining units are considered minor aquifers. Minor aquifers generally yield moderate quantities of groundwater with a variable quality. Based on this, these minor aquifers are typically not used as a major source of potable water.

Groundwater in San Juan has played a declining role in water supply since the completion of the Loiza reservoir project in the early 1950s (USGS, 1975). The major source of potable water in San Juan is surface water, particularly the Loiza reservoir. Based on the USGS National Wetland Inventory ("NWI") there are no public water supply wells within 1 mile of the MFH Facility. Because groundwater is not a major source of potable water in San Juan, and the MFH Facility is located within a "confining unit", there will be no impacts on sole source, principal aquifers, or groundwater resources from MFH Facility operations.

2.2 Surface Water Resources

2.2.1 Existing Watersheds & Surface Water Protection Areas

The USGS has organized watersheds of the United States and its territories into seven successively smaller levels of subdivisions using hydrologic unit codes ("HUC"). Regions (level one) are the largest watersheds (two-digit HUCs), followed by sub-regions (four-digit HUCs), basins (six-digit HUCs), and sub-basins (eight-digit HUCs), which are further divided into smaller watersheds (USGS, 2020). The basins and watersheds crossed by the MFH Facility are described below.

The MFH Facility is located within the Caribbean Region. The Caribbean Regional Watershed includes all of Puerto Rico, the Virgin Islands, and Caribbean outlying areas. The MFH Facility is located within the sub-region of Puerto Rico, designated "Commonwealth of Puerto Rico". This sub-region covers all of Puerto Rico and is approximately 3,480 square miles. Within this sub-region, the MFH Facility is located within the sub-basin, designated "San Juan Bay Estuary Watershed".

Based on publicly-available data, Puerto Rico does not have a surface water protection program. Instead, the PRDNR developed the Water Quality Standards Regulation with four goals in mind:

1. designate the uses for which the quality of the water bodies of Puerto Rico shall be maintained and protected;

2. promulgate the water quality standards required to sustain the designated uses;

3. identify other rules and regulations applicable to sources of pollution that may affect the quality of the waters subject to this Regulation; and

4. establish other measures necessary for achieving and maintaining the quality of the waters of Puerto Rico (PRDNR, 2019).

2.2.2 Waterbodies Crossed

Waterbodies are defined by FERC as "any natural or artificial stream, river, or drainage with perceptible flow at the time of crossing, and other permanent waterbodies such as lakes and ponds" (FERC, 2013). The flow regime for waterbodies may be characterized as perennial, intermittent, or ephemeral. Perennial waterbodies contain water for all, or most, of the year and have flow. Intermittent waterbodies flow seasonally or following rainfall events. Ephemeral waterbodies flow during, or shortly after, precipitation events or spring snowmelt.

As used in this resource report, the term "waterbodies" follows the FERC definition noted above. The only waterbody within 500 feet of the MFH Facility is the Bahia de San Juan (San Juan Bay) as is depicted on figure 2-2 in appendix 2A. The mouth of the San Juan Bay is 0.5 miles across and up to 40 feet deep. The bay extends 3 miles landward from the mouth and covers an area of approximately 5.8 square miles. There are currently six navigation channels within San Juan Bay and figure 1-5 in Resource Report 1, appendix 1A depicts the navigation channels that are used during MFH Facility operations. These navigation channels and the shoreline directly adjacent to Wharves A and B at the MFH Facility are maintained by the United States Army Corps of Engineers and the Puerto Rico Port Authority; therefore, no dredging by NFEnergía is required to keep the MFH Facility accessible by LNG carriers.

San Juan Bay is heavily industrialized, is located within an urban environment, and is a major transportation area that receives heavy vessel traffic throughout the year. The port is composed of a total of 16 wharves—of which, 8 are used for passenger ships and the remaining 8 are used for cargo ships (World Port Source, 2021). Most of the passenger ships visiting the San Juan Port are cruise liners. The San Juan Port in the San Juan Bay is host to an estimated 500 cruise ships each year and aside from cargo ships, cruise ships make up a majority of vessel traffic in the San Juan Bay (San Juan Puerto Rico, 2021).

2.2.3 Surface Water Standards and Classifications

The PRDNR sets the water quality standards and classifications in Puerto Rico under Rule 1302 (PRDNR, 2019). There are five classifications of waters in Puerto Rico, as follows below:

- Class SA—Includes bioluminescent lagoons and bays and any other coastal or estuarine waters of exceptional quality or high ecological or recreational value;

- Class SB—Incudes coastal and estuarine waters not classified as SA and also includes lagoons not classified under any other class;

- Class SC—Includes coastal waters intended for uses where the human body may come in indirect contact with the water (e.g., fishing and boating) and for use in the propagation and preservation of desirable species;

- Class SD—Includes all surface waters except those classified as SE; and
- Class SE—Includes surface water bodies of exceptional quality of high ecological or recreational value.

The San Juan Bay is classified as SC as it is coastal water that is not bioluminescent and is mainly used as a commercial shipping port. The MFH Facility is located at two wharves along the southern-most area of the San Juan Bay. This area previously underwent reinforcement/modification. Detailed information on the MFH Facility location can be found in Resource Report 1.

2.2.4 Contaminated Waters or Sediments

The USEPA's List of Sediment Sites with Substantial Contamination identifies Comprehensive Environmental Response, Compensation and Liability Act listed sites where remediation includes the dredging or excavation of more than 10,000 cubic yards of contaminated sediment. According to the USEPA, these sites contain sediments associated with waterbodies that present an unacceptable risk to human health and/or the environment (USEPA, 2017). Based on a review of the USEPA list, no such sites are located in Puerto Rico.

Section 303(d) of the Clean Water Act authorizes the USEPA to assist states, territories, and authorized tribes in listing impaired waters (USEPA, 2021a). The list of 303(d) Impaired Waters for Puerto Rico was reviewed to identify crossings of waterbodies that may contain contaminated sediments. The entire San Juan Bay is included in the list of 303(d) Impaired Waters (USEPA, 2015). San Juan Bay is considered an Intermediate Priority Impaired Water. Intermediate Priority Impaired Waters are basins that were not included in the Puerto Rico Unified Watershed Assessment and Restoration Activities and have 50 percent or more of its waters as impaired for some designated use. The potential pollution sources to the San Juan Bay include the following:

- Collection System Failure;
- Confined Animal Feeding Operations;
- Major Industrial Point Sources;
- Major Municipal Point Sources;
- Marinas and Recreational Boating;
- Minor Industrial Point Sources;
- On-site Wastewater Systems; and
- Urban Runoff / Storm Sewers.

The causes of impairment to the San Juan Bay include the following:

- surfactants;

- arsenic;
- copper;
- lead;
- mercury;
- selenium;
- total, phosporus;
- pH;
- dissolved oxygen;
- temperature;
- enterococcus;
- oil & grease; and
- turbidity.

2.2.5 Impacts on Surface Waters

Stormwater runoff from the onshore MFH Facility has the potential to impact San Juan Bay. However, the volume and pattern of stormwater runoff have not changed due to the MFH Facility because no significant alterations to impervious surfaces or site grades occurred during the MFH Facility's construction or continued operation. Any impacts from construction were minimized and mitigated through the implementation of a Stormwater Pollution Prevention Plan, which also included spill prevention and response measures. The Stormwater Pollution Prevention Plan was only pertinent to the construction phase. The existing stormwater system supports the operation of the MFH Facility. Stormwater is conveyed to the Port Authority's existing stormwater system. The LNG collection trench is designed to collect LNG spills and prevent them from entering the stormwater system. In the impoundment basin, temperature sensors determine whether any spilled liquid is water or LNG to ensure that no cryogenic liquid is directed to the stormwater system.

Facility operations and equipment consist of closed-loop systems, and there is no potential for stormwater to come into contact with any natural gas or other materials at the MFH Facility during normal operations. In addition, the MFH Facility's Emergency Response Plans (Resource Report 11, appendix 11C; Resource Report 1, appendix 1C) include various spill prevention and response measures, including the following:

- identifying areas where spills can occur on-site, the location of all storm water drain inlets and the direction of surface water runoff;

- providing appropriate secondary containment features (including certain double-walled tanks);

- ensuring sorbent materials are available, including spill cleanup kits, absorbent material, booms, and other portable barriers, and located in close proximity to storage and handling areas for rapid deployment should a spill occur;

- undertaking monthly and annual inspections; and

- training MFH Facility personnel on an annual basis in the operation and maintenance of pollution prevention equipment, spill cleanup procedures and protocols, application pollution control laws, and the contents of the Emergency Response Plans.

During operation, on-site vehicle and equipment fueling and maintenance at the onshore MFH Facility are prohibited unless specific provisions to contain and dispose of fluid drips and spills are implemented and approved by the engineer. In addition, all equipment and vehicle washing is done off-site at commercial wash facilities or at a facility that is properly permitted and discharges wash water to a recycle/reuse system or to the sanitary sewer.

Table 2-1 includes the general intake and discharge systems for which water is required while the FSU is berthed at the MFH Facility. Table 2-2 includes the estimated water needs and discharges for the FSU vessel while at berth.

Table 2-1: Operating Systems for FSU While at Berth in Port of San Juan.

System	Continuous Use	Intermittent Use
Main Propulsion Engine	No[1]	-[1]
Auxiliary Generators	Yes	-
Cooling Water System	Yes	-
Water Curtain[2]	-	Yes
Deck Spray System[3]	-	Yes
Fire Fighting System[3]	-	Yes
Ballast System[4]	-	Yes

- Not applicable

[1] Main propulsion engines are diesel fuel systems and will not be operating while at berth.

[2] Water curtain operation on the FSU tentative based on LNG transfer operation requirements.

[3] Systems will require intermittent testing and for anchor cleaning when getting underway.

[4] Ballast system will be active for vessel stability during daily operations but will be fully engaged during offloading and storage operations from the LNG Carriers.

Table 2-2: Estimated Water Needs and Discharges for the FSU and Shuttle Vessels While at Berth.

Vessel [1]	System	Continuous /Intermittent Use	Pump(s) Volume Intake (million gallons per day)	Potential Volume Discharges (million gallons per day)	Frequency
FSU	Water Cooling System	C	2.03	2.03	Continuous.
Shuttle vessel		-	-	-	Not in use while alongside the FSU.
FSU	Freshwater Generator	-	-	-	Not in use. Freshwater supply from MFH Facility.
Shuttle vessel		-	-	-	Not in use while in port.
FSU	Water Curtain[2]	I	0.76	0.76	Active only during LNG unloading operations (if needed).
Shuttle vessel		-	-	-	Not a stand-alone system, see Fire Fighting System below.
FSU	Deck Spray System[3]	I	0.042	0.042	Demand as needed for normal deck operations with estimated 15-minute test per day.
Shuttle vessel		-	-	-	Normally not in use, emergency only.
FSU	Fire Fighting System[4]	I	0.031	0.031	Intermittent testing only for 1 hour per event.
Shuttle vessel		C	0.07	0.07	In use for water curtain only (and emergency); continuous only during cargo operations.
FSU	Ballast System[5]	I	0.74	0.74	Stability ballast operation during non-loading operations. Major ballasting during LNG offloading operations.
Shuttle vessel		C	1.50	-	Continuous only during cargo operations; ballasting (intake) only.

[1] The current FSU is the INEOS Independence; the current shuttle vessel is the Coral Encanto. These vessels are not permanently linked to the MFH Facility and may be substituted by similar vessels. Therefore, the current FSU and shuttle vessel's water needs are presented here for estimation purposes.

[2] Water curtain operation on the FSU tentative based on LNG transfer operation requirements.

[3] Based on one 15-minute test use per day.

[4] Discharge based on one weekly test for 1 hour.

[5] Ballast system will run continuously based on vessel stability needs, greatest volumes to exchange during LNG offloading operations.

The FSU draws in seawater through sea chests for distribution and treatment for use in the various onboard operating systems. The FSU does not use its propulsion system while moored, nor require process water on a routine basis other than for periodic maintenance and operational system checks. While at berth, the FSU's cooling water demands are expected to be minimal. Therefore, no associated discharges are expected for these systems.

Operating systems—including the ballast water system, firefighting system, deck wash, and water curtain—are all subject to Marine Growth Prevention System ("MGPS") applications for marine growth control. These systems discharge on an intermittent basis as part of routine system testing or LNG offloading operations. The water cooling system and auxiliary generators continuously discharge to the receiving waters of San Juan Bay. While in port, sanitary and bilge discharges are managed through direct pump off and treatment at a permitted facility or subject

to International Convention for the Prevention of Pollution ("MARPOL") / United States Coast Guard ("USCG") for vessels while in commerce.

Any discharge of a pollutant into the navigable waters of the United States requires authorization under the Clean Water Act. Although discharges of ballast waters were historically excluded from the Clean Water Act, in 2013 the USEPA issued a National Pollutant Discharge Elimination System permit, the General Permit for Discharges Incidental to the Normal Operation of Vessels (Vessel General Permit ["VGP"]). The VGP, effective December 19, 2013, sets numeric effluent limits for ballast water discharges from certain large commercial vessels (any vessel of length greater than 75 feet) under a staggered implementation schedule. This standard is expressed as the maximum concentrations of living organisms in ballast water. The VGP also includes maximum discharge limitations for biocides and residues.

USCG regulations (46 CFR 162.060) were enacted in June 2012 in an effort to phase out ballast water exchange practices. The ballast water discharge standard (33 CFR 151.2030(a)) requires vessels calling at all United States ports to be equipped with a USCG approved Ballast Water Management System. This applies to all new ships constructed on or after December 2013. All vessels over 300 gross tons, or that have the capacity to discharge 2,113 gallons of ballast water, must submit a notice of intent to the USEPA requesting authorization under the 2013 VGP.

The operators of the FSU and the shuttle vessels possess VGPs, and NFEnergía anticipates that any future FSU or shuttle vessels used would similarly obtain VGPs.

The FSU implements a vessel-specific Ballast Water Management Plan during voyages, and should NFEnergía use a different vessel to function as FSU, that vessel would implement similar ballast water management measures. In order to protect against the release of ballast water sourced from distant ports and locations into the waters around Puerto Rico, during voyages, all ballast water exchange from those locations would occur at least 200 nautical miles ("nm") from the nearest land in water at least 200 meters in depth. If this is not possible, ballast exchange would occur as far from the nearest land as possible and, in all cases, at least 50 nm from the nearest land or in areas designated by the Port State. Once the FSU is at berth, ballast water exchange is conducted during loading and unloading operations; however, the exchange is with water only from San Juan Bay and its vicinity. As such, ballast water exchanges of water from foreign bodies of water will not occur within San Juan Bay, and ballast water will not impact the San Juan Bay. The shuttle vessels have vessel-specific Ballast Water Management Plans to which they adhere, mandating that all ballast water exchanges occur at least 200 nm from shore in at least 200 feet of water or, at a minimum, as far from the nearest land as possible but at least 50 nm from land or other areas designated by the Port State.

The FSU also adheres to a Garbage Management Plan. The revised MARPOL Annex V with an entry into force date of 1 January 2013 prohibits the discharge of all types of garbage into the sea unless explicitly permitted under the Annex. In accordance with Regulation 10 of Annex V of the MARPOL from Ships, 1973, as modified by the Protocol of 1978, a record is to be kept of each discharge operation or completed incineration. This includes discharges, including the accidental loss of garbage, into the sea, to reception facilities, or to other ships. Generally, discharge is restricted to food wastes, identified cargo residues, animal carcasses, identified cleaning agents and additives, and cargo residues entrained in wash water which are not harmful to the marine environment. Whenever possible, waste from the FSU is pumped or disposed of

onshore at the appropriate facilities. No type of waste may be purposefully discharged within 3 nm of land. Based on this disposal, waste from the FSU will not impact San Juan Bay.

On the shuttle vessels, normal autonomous operations require withdrawal of seawater through sea chests and distribution to support ship-based operating systems. Shuttle vessels are equipped with an MGPS for control of macrofouling organisms within the seawater intake and ballast water systems. The MGPS for the shuttle vessels utilize a zinc-aluminum anode array to prevent fouling of the water intake and ballast systems. In addition, shuttle vessels follow vessel-specific Ballast Water Management Plans based on the classification societies used to build the vessels. The shuttle vessels also adhere to a Garbage Management Plan for disposal of waste that complies with MARPOL Annex V.

2.3 Wetlands and Natural Protected Areas

2.3.1 Wetlands

The United States Army Corps of Engineers and USEPA jointly define wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (USEPA, 2021b). FERC defines wetlands as “any area that is not actively cultivated or rotated cropland and that satisfies the requirements of the current Federal methodology for identifying and delineating wetlands” (FERC, 2013).

To determine if MFH Facility operations affect any wetlands, NFEnergía reviewed aerial imagery, site photos, and NWI maps. NWI maps are provided in figure 2-3 in appendix 2A. Based on available NWI mapping, there are no wetlands on-site or within 400 feet of the MFH Facility. Aerial imagery demonstrates that the MFH Facility site has been a paved industrial site for over 25 years. Therefore, no site delineations were conducted. Based on this, MFH Facility operations will have no impact on any wetland resources.

2.3.2 Natural Protected Areas

There are 109 Protected Areas within Puerto Rico, which are composed of 72 subnational agencies, 17 non-profit organizations, 14 Federal or National Agencies, four joint governances, and two with no affiliations (IBAT, 2021). None of these protected areas are located on-site or within the immediate vicinity of the MFH Facility. The nearest conservation areas to the MFH Facility include Carso Conservation Zone and Ciénaga Las Cucharillas Nature Reserve, which are located approximately 0.5 miles south and 0.9 miles west of the MFH Facility, respectively. The nearest marine protected area is Laguna del Condado Nature Reserve, which is located approximately 2.4 miles northeast of the MFH Facility and would not be traversed by shuttle vessels, outside of San Juan Bay (CBI, 2017). Therefore, MFH Facility operations will have no impact on any protected areas.

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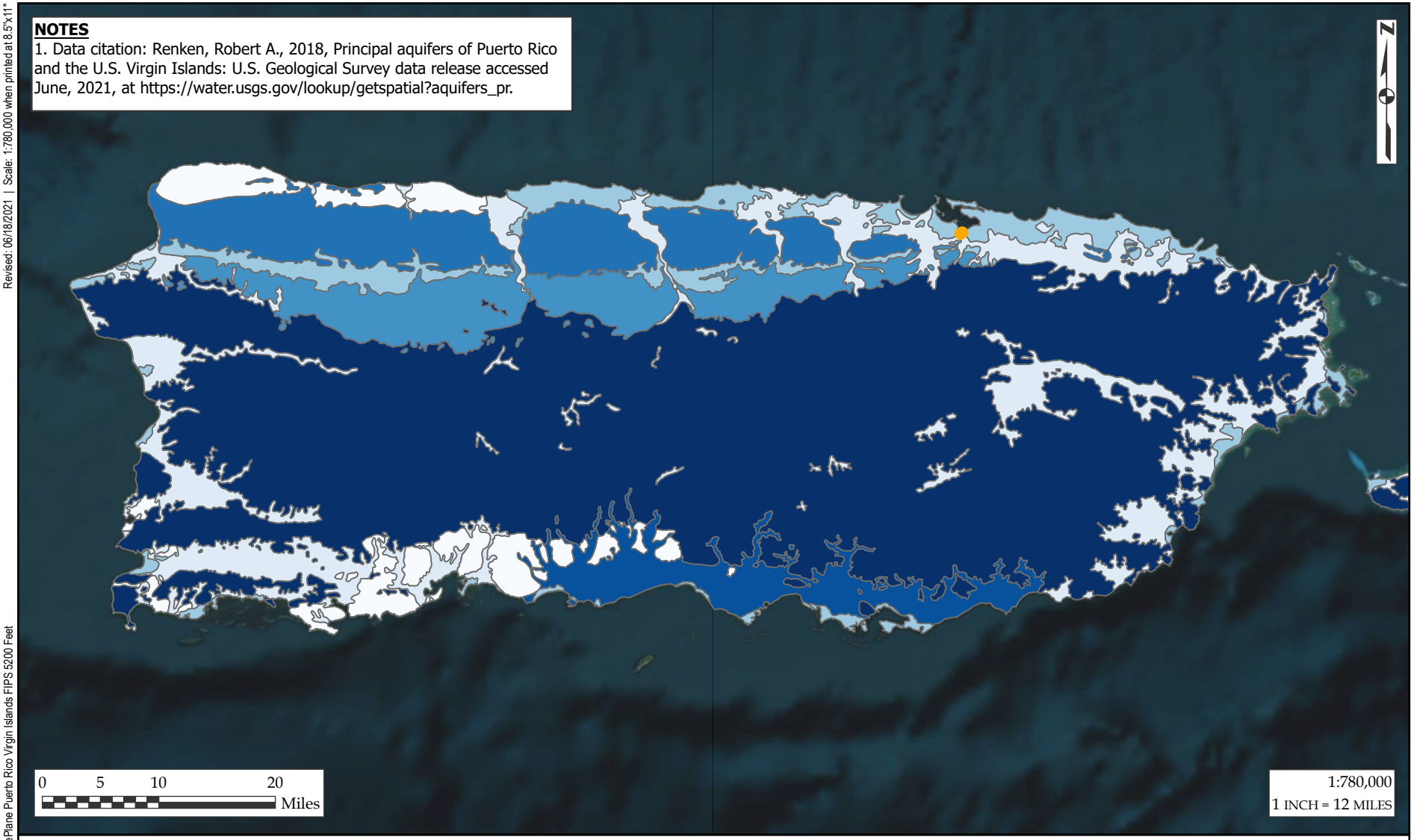
World Port Source. 2021. Port Of San Juan Port of Commerce. Available online at: http://www.worldportsource.com/ports/commerce/PRI_Port_of_San_Juan_226.php. Accessed: June 2021.

APPENDIX 2A FIGURES

APRX Path | Layout Name: \\usbdcfs02\data\Boston\Team\DMMV\Clients_L_P\New_Fortress_Energy\Puerto_Rico_FERC\APRX\2021\2021_06_New_Fortress_FERC_Analysis\2021_06_New_Fortress_FERC_Analysis.aprx | Principal_Aquifers
Map Author: CAL.WILSON
Revised: 06/18/2021 | Scale: 1:780,000 when printed at 8.5"x11"
COORDINATE SYSTEM: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 Feet

NOTES

1. Data citation: Renken, Robert A., 2018, Principal aquifers of Puerto Rico and the U.S. Virgin Islands: U.S. Geological Survey data release accessed June, 2021, at https://water.usgs.gov/lookup/getspatial?aquifers_pr.



Aquifers by Name

- Unnamed
- Alluvial-valley aquifer
- Confining unit
- North Coast Limestone aquifer system lower aquifer
- North Coast Limestone aquifer system upper aquifer
- South coast aquifer
- Volcaniclastic-, igneous-, and sedimentary-rock aquifers
- Project Footprint (0.5 miles)

Figure 2-1
Principal Aquifers
San Juan Micro-Fuel Handling Facility - NFEnergía, LLC
San Juan, Puerto Rico

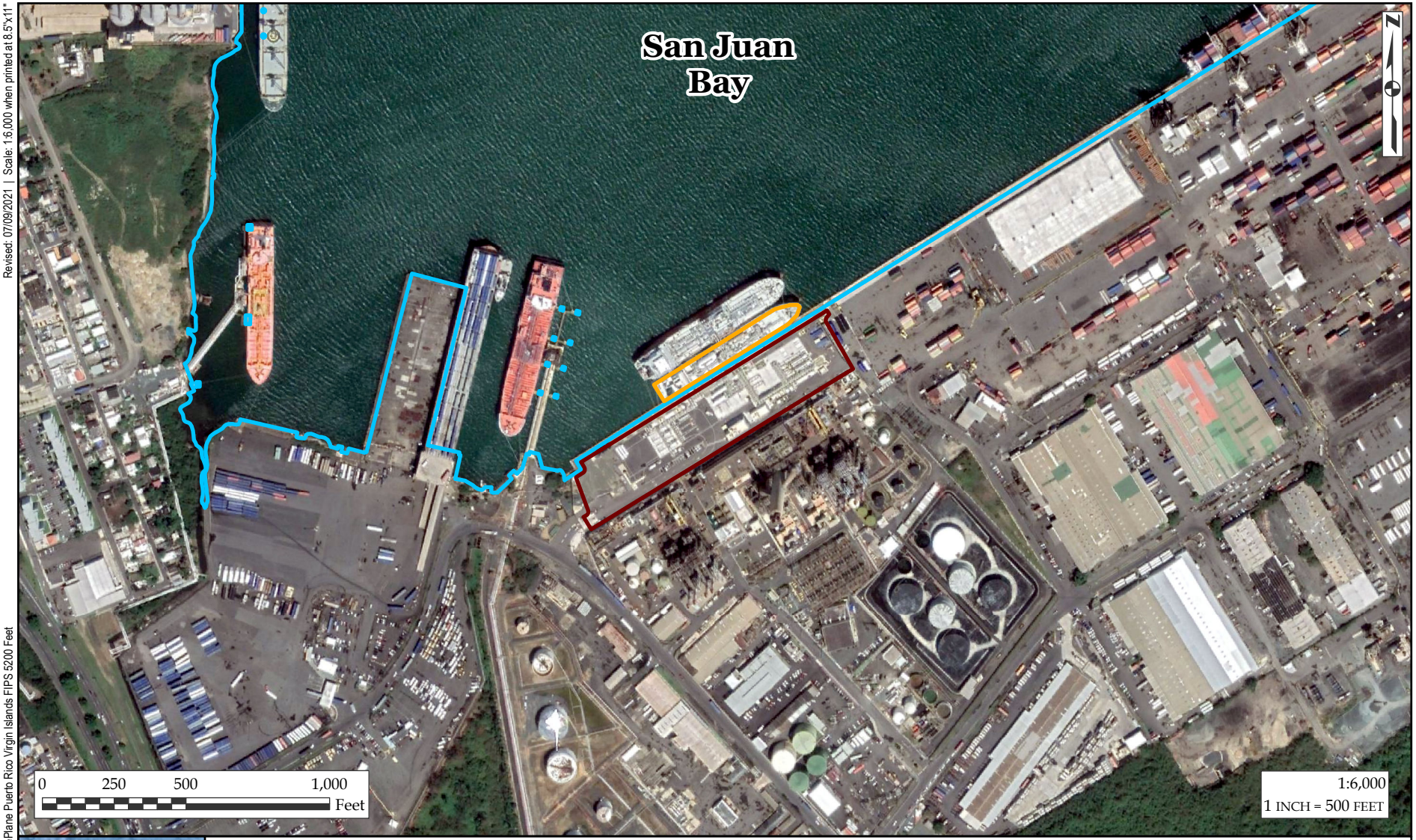
NFEnergía puerto rico
ERM

APRX Path | Layout Name: \\usbdcfs02\data\Boston\Team\DMMV\Clients_L_P\New_Fortress_Energy\Puerto_Rico_FERC\APRX\2021\2021_06_New_Fortress_FERC_Analysis\2021_06_New_Fortress_FERC_Analysis.aprx | Waterbodies

Map Author: CAL.WILSON

Revised: 07/09/2021 | Scale: 1:6,000 when printed at 8.5"x11"

COORDINATE SYSTEM: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 Feet



Site Boundary

Non-Jurisdictional Floating Storage Unit

Waterbody Boundary

NOTES

1. Aerial image from 5/3/2021.
2. Parcel boundary georeferenced from Puerto Rico Centro de Recaudación de Ingresos Municipales (CRIM) data.
3. Waterbody data from National Oceanic and Atmospheric Administration, National Ocean Service and Office Coast Survey

Figure 2-2

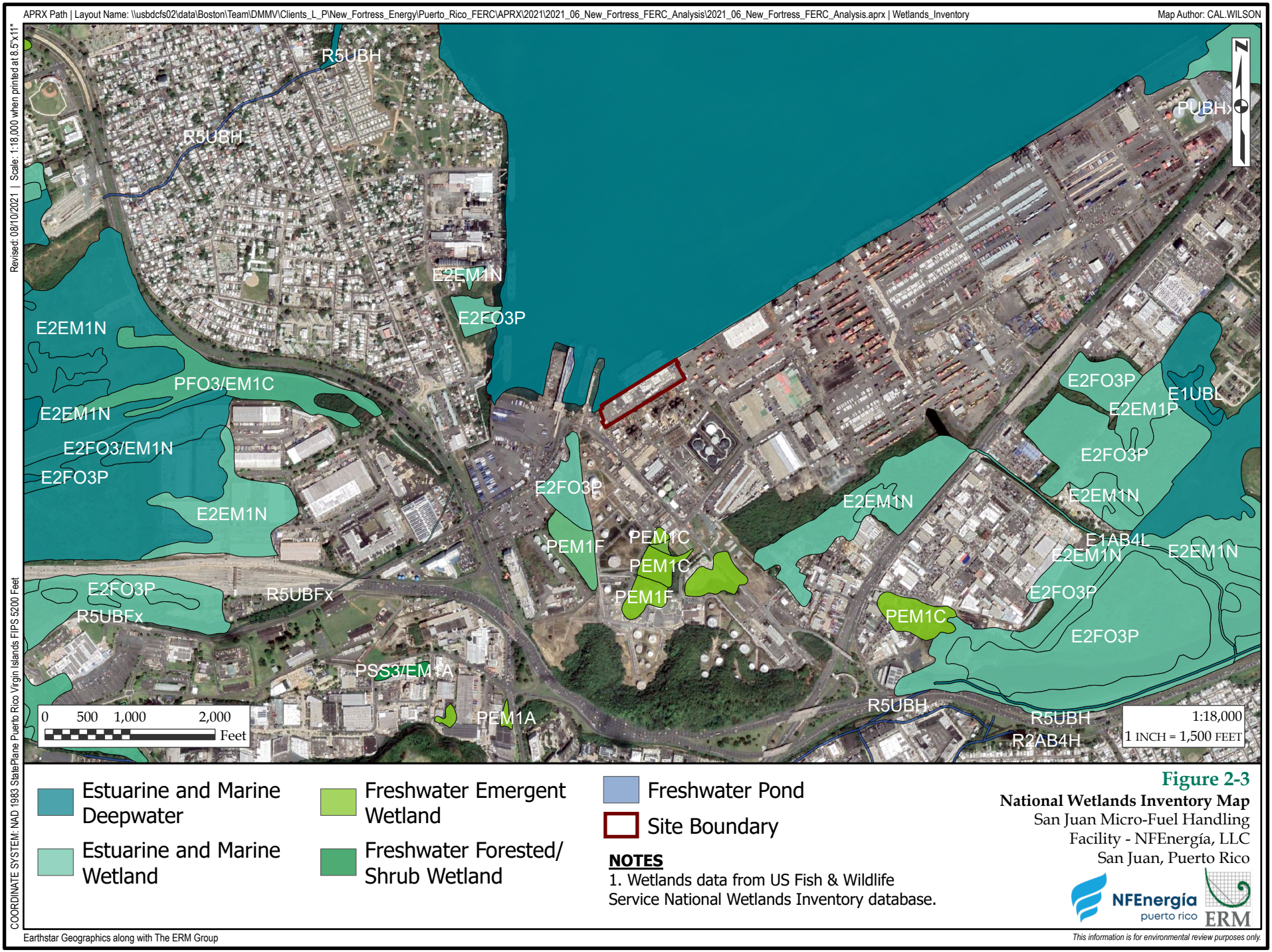
Surrounding Waterbodies

San Juan Micro-Fuel Handling Facility - NFEnergía, LLC

San Juan, Puerto Rico

NFEnergía puerto rico

ERM


APRX Path | Layout Name: \\usbdcfs02\data\Boston\Team\DMMV\Clients_L_P\New_Fortress_Energy\Puerto_Rico_FERC\APRX\2021\2021_06_New_Fortress_FERC_Analysis\2021_06_New_Fortress_FERC_Analysis.aprx | Wetlands_Inventory
Map Author: CAL.WILSON
Revised: 08/10/2021 | Scale: 1:18,000 when printed at 8.5"x11"
COORDINATE SYSTEM: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 Feet
R5UBH
R5UBH
E2EM1N
E2FO3P
E2EM1N
PFO3/EM1C
E2EM1N
E2FO3/EM1N
E2FO3P
E2EM1N
E2FO3P
PEM1F
PEM1C
PEM1C
PEM1F
E2FO3P
R5UBFx
R5UBFx
PSS3/EM1A
PEM1A
R5UBH
R5UBH
R2AB4H
PUBH
E2FO3P
E1UBL
E2EM1P
E2FO3P
E2EM1N
E2EM1N
E1AB4L
E2EM1N
E2EM1N
E2FO3P
PEM1C
E2FO3P
0 500 1,000 2,000 Feet
1:18,000
1 INCH = 1,500 FEET
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Freshwater Emergent Wetland
Freshwater Forested/ Shrub Wetland
Freshwater Pond
Site Boundary
NOTES
1. Wetlands data from US Fish & Wildlife Service National Wetlands Inventory database.
Figure 2-3
National Wetlands Inventory Map
San Juan Micro-Fuel Handling Facility - NFEnergía, LLC
San Juan, Puerto Rico
NFEnergía puerto rico
ERM
Earthstar Geographics along with The ERM Group
This information is for environmental review purposes only.