NFEnergía LLC

San Juan Micro-Fuel Handling Facility

Resource Report 3
Fish, Wildlife, and Vegetation

Docket No.
CP21-___-000

September 15, 2021

NFEnergía LLC
SAN JUAN MICRO-FUEL HANDLING FACILITY
RESOURCE REPORT 3—FISH, WILDLIFE, AND VEGETATION

Minimum Filing Requirements for Environmental Reports:	Found in Section
1. Classify the fishery type of each surface waterbody that would be crossed, including fisheries of special concern—Title 18 Code of Federal Regulations ("CFR") (Part 380.12[e][1]).	Section 3.2
2. Describe terrestrial and wetland wildlife and habitats that would be affected by the project—18 CFR (Part 380.12[e][2]).	Sections 3.3 and 3.4
3. Describe the major vegetative cover types that would be crossed and provide the acreage of each vegetative cover type that would be affected by construction—18 CFR (Part 380.12[e][3]).	Sections 3.2.1 and 3.4
4. Describe the effects of construction and operation procedures on the fishery resources and proposed mitigation measures—18 CFR (Part 380.12[e][4]).	Section 3.2.3
5. Evaluate the potential for short-term, long-term, and permanent impacts on the wildlife resources and state-listed endangered or threatened species caused by construction and operation of the project and proposed mitigation measures—18 CFR (Part 380.12[e][4]).	Sections 3.3 and 3.5.2
6. Identify all federally listed or proposed endangered or threatened species that potentially occur in the vicinity of the project and discuss the results of the consultations with other agencies. Include survey reports as specified in 18 CFR (Part 380.12[e][5]).	Section 3.5.1
7. Identify all federally listed essential fish habitat that potentially occurs in the vicinity of the project and the results of abbreviated consultation with the United States Fish and Wildlife Service, and any resulting essential fish habitat assessment—18 CFR (Part 380.12[e][6]).	Section 3.2.4
8. Describe any significant biological resources that would be affected. Describe impact and any mitigation proposed to avoid or minimize that impact—18 CFR (Part 380.12[e][4,7]).	Sections 3.5.3, 3.5.4, and 3.5.5

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ACRONYMS AND ABBREVIATIONS

BCC	birds of conservation concern
BCR	bird conservation regions
BGEPA	Bald and Golden Eagle Protection Act
BWM	ballast water management
CFM Council	Caribbean Fishery Management Council
CFR	Code of Federal Regulations
DCH	Designated Critical Habitat
DRNA	Departamento de Recursos Naturales y Ambientales (Department of Natural and Environmental Resources)
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EFHA	Essential Fish Habitat Assessment
ERP	Emergency Response Plan
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
FMP	Fishery Management Plan
FSU	floating storage unit
HMS	highly migratory species
IBA	important bird area
IMO	International Maritime Organization
LNG	liquefied natural gas
MARPOL	International Convention for the Prevention of Pollution from Ships
MBTA	Migratory Bird Treaty Act
MEPC Res	Marine Environment Protection Committee Resolutions
MFH Facility	San Juan Micro-Fuel Handling Facility
NE	no effect
NFEnergía	NFEnergía LLC
NLAA	may affect, but not likely to adversely affect
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
PREPA	Puerto Rico Electric Power Authority
STS	ship-to-ship
USACE	United States Army Corps of Engineers
USC	United States Code
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VGP	Vessel General Permit

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3.0 RESOURCE REPORT 3—FISH, WILDLIFE, AND VEGETATION

3.1 Introduction

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 3 (18 Code of Federal Regulations ["CFR"] § 380.12) is included before the table of contents.

Resource Report 3 describes the existing fish and wildlife resources, vegetation, and sensitive species and habitats that could be affected by MFH Facility operations, including operation of the MFH Facility and LNG vessels. This resource report also identifies the measures that NFEnergía will implement to avoid or minimize potential impacts on these resources. The information contained in Resource Report 3 is obtained from various sources, including publicly available maps, technical documents, and databases and consultation with federal and state (commonwealth) agencies.

3.2 Fisheries and Other Aquatic Resources

This section describes fisheries and other aquatic resources present in the vicinity of the MFH Facility. Fisheries information is based on review of existing, publicly available information including United States Geological Survey topographic maps, aerial photographs, spatial data layers, and online sources, as discussed in more detail below.

3.2.1 Existing Fishery Resources

Classification of fisheries habitat includes consideration of chemical and biological characteristics of the waterbody in question. Physical and chemical properties that can be used to determine fishery classification include water temperature and salinity and whether the waterbody is part of a marine, estuarine, or freshwater system. Habitat classification also depends on the presence of certain fish species in the aquatic community that can use the habitat for reproduction. As discussed above, the Bahía de San Juan ("San Juan Bay") and the Atlantic Ocean are used for warmwater commercial and recreational fisheries.

The paved and fenced MFH Facility sits adjacent to fishery habitat.

Federally Managed Fisheries

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act, 16 United States Code ["USC"] §§ 1801 et seq.) established a management system for marine fisheries resources in the United States under the jurisdiction of the National Oceanic and Atmospheric Administration ("NOAA") Fisheries. Ecosystem-based fisheries management is defined by NOAA Fisheries as "a systematic approach to fisheries management in a geographically specified area that contributes to the resilience and sustainability of the ecosystem; recognizes the physical, biological, economic, and social interactions among the affected fishery-related components of the ecosystem, including humans; and seeks to optimize benefits among a diverse set of societal goals" (NOAA, 2019). The stated purposes of the Magnuson-Stevens Act include conserving and managing fishery resources; providing for the preparation and implementation of fishery management plans ("FMPs"); establishing Regional Fishery Management Councils to prepare, monitor, and revise those plans; and promoting the protection of Essential Fish Habitats ("EFH") in the review of projects conducted under Federal permits, licenses, or other authorities with the potential to affect EFH within the United States Exclusive Economic Zone ("EEZ"). A description of the managed fisheries in the affected area is provided below. An EFH assessment is provided in section 3.2.5. A discussion of local recreational and commercial fisheries is provided in section 3.2.3.3.

Eight regional fishery management councils are tasked with developing FMPs, which identify managed fisheries, the fish species included in each fishery, and the EFH for each species. The MFH Facility in San Juan and the shuttle vessel route are located within the jurisdiction of the Caribbean Fishery Management Council ("CFM Council"), which is a part of the NOAA Fisheries Southeast Region. The CFM Council and NOAA Fisheries created four FMPs, which are organized by species or species groups (i.e., fisheries): spiny lobster; reef fish; queen conch; and corals and reef associated plants and invertebrates ("corals") fisheries. In addition, the Atlantic highly migratory species ("HMS") fishery, which is managed under the Consolidated Atlantic HMS FMP by NOAA Fisheries, extends into the waters of Puerto Rico. The purpose of the FMPs is to protect fisheries resources, while allowing for optimum yield (NOAA Fisheries, 2021b).

The CFM Council is in the process of transitioning management of federal fisheries from the four current Caribbean-wide, species-based FMPs to three island-based (Puerto Rico, St. Thomas/St. John, and St. Croix), multi-species FMPs. Once effective, the new FMPs will include all fishery management measures presently included in the Reef Fish, Spiny Lobster, Queen Conch, and Coral FMPs that are applicable to the management area for each island or island group (NOAA Fisheries, 2021b).

Species included in the Coral FMP include sponges, hydrocorals, anthozoans, gorgonian corals, hard corals, and black corals. Harvesting species included in the Coral FMP for both recreational and commercial fishing is prohibited in Puerto Rico (NOAA Fisheries, 2017).

Queen conch is currently a candidate species for listing under the Endangered Species Act ("ESA") under NOAA Fisheries jurisdiction. Harvesting (e.g., catching) of queen conch within the EEZ is prohibited, with the exception of Lang Bank, St. Croix, and the U.S. Virgin Islands during the open season (NOAA Fisheries, 2021h). The species may be harvested in Puerto Rico state waters (NOAA Fisheries, 2017).

Fish species included in the Reef Fish FMP include snappers, groupers, grunts, jacks, filefishes, and angelfishes. The full list of species under the Reef Fish FMP is available online (NOAA Fisheries, 2021b).

The below 14 managed fish species (including spiny lobster and queen conch) have been documented in San Juan Bay (USACE, 2018):

- banded butterflyfish (*Chaetodon striatus*)
- coney (*Cephalopholis fulvus*)
- gray snapper (*Lutjanus griseus*)
- mutton snapper (*Lutjanus analis*)
- queen conch (*Strombus gigas*)
- queen triggerfish (*Balistes vetula*)
- red hind (*Epinephelus guttatus*)
- redtail parrotfish (*Sparisoma chrysopterum*)
- sand tile fish (*Malacanthus plumieri*)
- schoolmaster (*Lutjanus apodus*)
- spiny lobster (*Panulirus argus*)
- squirrelfish (*Holocentrus ascensionis*)
- white grunt (*Haemulon plumieri*)

- yellowtail snapper (*Ocyurus chrysurus*)

3.2.1.1 Recreational and Commercial Fishing

The Atlantic Ocean and San Juan Bay are used for recreational and commercial fisheries. Fishery habitat crossed by, or near, the MFH Facility operations support warmwater fisheries. The affected area offers habitat for saltwater species. For local regulatory purposes, San Juan Bay is considered "oceanic" and thus not restricted to recreational fishing. Recreational and subsistence fishing occurs in numerous areas around the bay (USACE, 2018). Licensed commercial fishing with nets and traps as well as spearfishing are also allowed. Within Puerto Rico's jurisdictional waters, seasonal closures apply to both commercial and recreational fisheries for snappers and groupers (NOAA Fisheries, 2017).

Recreational fishing provides food, livelihood, income, and other benefits to the residents of Puerto Rico (NOAA Fisheries, 2017). Recreational fishing in Puerto Rico requires a fishing license. Bag and size limits specific to recreational fishing apply to managed species, such as snapper, grouper, angelfish, and spiny lobster (NOAA Fisheries, 2014). The charter fishing industry is especially popular in the San Juan area, northeast region, and southwest region of Puerto Rico. This industry typically targets large migratory and coastal pelagic species, such as swordfish and tuna (NOAA Fisheries, 2014). There are at least 15 recreational fishing and boating clubs in Puerto Rico that sponsor fishing tournaments (NOAA Fisheries, 2014).

Commercial fishing in Puerto Rico is categorized as 'artisanal' because fishing vessels are typically less than 45 feet long and fishing crews are smaller, participate in multiple fisheries, and yield smaller revenues (NOAA Fisheries, 2014). There are no limits on the number of commercial fishing licenses issued in Puerto Rico (NOAA Fisheries, 2014). The most targeted fish species along the north coast of Puerto Rico include reef fish (e.g., yellowtail snapper, triggerfish [*Balistidae spp*], and parrotfish [*Sparisima viride* and *S. chrysoterum*]); deepwater snappers such as silk and queen; pelagic species such as dolphinfish (*Coryphaena hippurus*), king mackerel (*Scomberomorus cavalla*), and little tunny (*Euthynnus alletteratus*); and spiny lobster (Matos-Caraballo and Agar, 2008). The following commercially important fish species have been documented in the waters of San Juan Bay (Ojeda et al., 2007):

- blue runner (*Caranx crysos*)
- cero mackerel (*Scomberomorus regalis*)
- common snook (*Centropomus undecimalis*)
- coney (*Cephalopholis fulva*)
- goliath grouper (*Epinephelus itajara*)
- lane snapper (*Lutjanus synagris*)
- mangrove snapper (*Lutjanus griseus*)
- red hind (*Epinephelus guttatus*)

- yellow jack (*Caranx bartholomaei*)
- yellowtail snapper (*Ocyurus chrysurus*)

3.2.2 Operational Impacts and Mitigation

Operational activities occur year-round. The primary in-water activities during continued operations are non-jurisdictional vessel traffic in San Juan Harbor and the Atlantic Ocean, and the loading and transfer of LNG at the non-jurisdictional FSU to the MFH Facility. The character and amount of vessel traffic associated with Wharves A and B where the MFH Facility is located is not markedly different from the vessel activity previously accessing the dock and wharves in connection with the operation of facilities that previously existed at that location. The FSU is semi-permanently moored adjacent to the MFH Facility site. Although the FSU is moored for the majority of the time, it may be moved to protect the crew, vessel, and cargo during extreme weather conditions (as directed by the United States Coast Guard ["USCG"]); to accommodate vessel calls to an adjoining berth; or to rotate out of service for maintenance. Given the infrequent and unpredictable FSU movements, this activity is not reviewed in great detail; however, the FSU would follow the same mitigation measures as the shuttle vessels, as described in the following sections. Resource effects from FSU movement would be similar in nature to those for shuttle vessels and would result in negligible to minor impacts.

3.2.2.1 Onshore Facilities

Hazardous Substances

The LNG offload process utilizes existing cargo pumps onboard the FSU to move the LNG from vessel to shore via articulated cryogenic cargo arms, flexible hoses, or other comparable means connecting the vessel manifolds to the LNG transfer header ashore. One or two hoses are used to handle the LNG and the third hose is used to maintain the boil-off gas vapor on the marine vessel. The MFH Facility distributes LNG in two ways: (1) via truck, following ship-to-truck LNG trans-loading operations; and (2) through a direct natural gas vapor connection to PREPA's San Juan Power Plant. The truck loadout facility is located at the berth and is included within the restricted access area of the secured facility perimeter.

Spills may occur during the transfer of LNG from the FSU to distribution trucks. The release of LNG, in the unlikely event that any were to come into contact with the water, would have a negligible effect on aquatic resources because the LNG would immediately vaporize out of the water. In addition to LNG, hazardous materials such as fuel, antifreeze, and other fluids from trucks could inadvertently be released into adjacent aquatic habitat. A spill containment system is installed and operating at the MFH Facility that routes spills away from process equipment and other exit points and gathers spilled material into an impoundment sump. To reduce the risk and severity of potential impacts on the waters of San Juan Bay, NFEnergía will adhere to its Emergency Response Plans ("ERP"), which are provided in appendices 1C and 11C in Resource Reports 1 and 11. NFEnergía prepared the ERPs, which establish the procedures for responding to emergencies (e.g., spills) that may occur at the MFH Facility or aboard the non-jurisdictional FSU. The implementation of the ERPs should result in the minimization of damage to the environment, personnel, equipment, and structures. As such, impacts on fisheries would not be significant.

Stormwater Runoff

The permanent MFH Facility makes use of the existing roadways, electric distribution system, and water and wastewater infrastructure that currently serves the existing Port facilities and uses. Potable water demand and wastewater generation is comparable to existing uses along this section of waterfront. Similarly, volume and pattern of stormwater runoff has not changed because no significant alterations to impervious surfaces or site grades occurred. Stormwater from the MFH Facility continues to be conveyed to the existing stormwater system managed by the Port Authority. Facility operations and equipment consist of closed-loop systems, and there is no potential for stormwater to come into contact with any overburden, raw material, intermediate products, finished products, byproducts, or waste products located at the MFH Facility. Based on the facility design, use of the existing stormwater system, and implementation of the ERPs discussed above, indirect impacts on aquatic species due to stormwater runoff are not expected to be significant.

3.2.2.2 Offshore Facilities

Vessel Traffic

Vessel traffic may reduce habitat quality by generating noise and by creating a hazard to aquatic organisms through the risk of physical collisions.

Ongoing operation of the MFH Facility contemplates visits of up to approximately 120 shuttle vessels annually (on average, 10 round trips per month). This represents a minor increase to the pre-MFH Facility level of ship traffic in the harbor and is also anticipated to decrease ship traffic transporting other fuels, thereby potentially offsetting or minimizing a portion of the increase (USCG, 2018). In general, as is discussed in Resource Report 5, operation of the MFH Facility represents an increase in vessel traffic in San Juan Bay by about 4.5 percent. Intermittent underwater noise levels associated with vessel traffic in the harbor may consequently increase as a result of operation of the MFH Facility; however, the noise associated with the shuttle vessels is consistent with or less than that produced by other large ships that travel though the adjacent heavily used San Juan Harbor. In addition, the affected waterways constitute a highly trafficked area and the shuttle vessels use well-established shipping lanes (USACE, 2018).

The mobility of marine species and their ability to leave any area of noise disturbance minimizes impacts from shuttle vessel traffic. In addition, the presence of a small proportion of additional LNG vessels does not substantially alter baseline conditions for these waterways, as discussed above. As such, operational impacts on fisheries resources are negligible.

LNG shuttle vessels could collide with marine species such as manatees, whales, and rays, which might cause injury or mortality, although such collisions are unlikely where established, well-traveled, deepwater shipping lanes are used.

To minimize potential collisions between vessel traffic and marine species, the Southeast Region of NOAA Fisheries has developed *Vessel Strike Avoidance Measures* (NOAA Fisheries, 2021i). These are standard measures to be implemented to reduce the risk associated with vessel strikes or disturbance of marine species. Measures include, but are not limited to, maintaining watch for protected species, maintaining a buffer zone if species are sighted, reducing engine speed, and reporting collisions or any sightings of injured or dead species protected under federal law. NFEnergía has provided the *Vessel Strike Avoidance Measures* to shuttle vessel

captains, who implement the measures identified in the document, thereby minimizing potential impacts on marine species from marine traffic.

Vessel Mooring

Long-term mooring of the FSU may result in shading impacts on marine flora (e.g., corals, sponges, seagrasses). According to surveys conducted by NOAA Fisheries and the United States Army Corps of Engineers ("USACE") in 2016, none of the seven federally listed coral species were documented in San Juan Bay; however, other non-listed coral species may exist in the waters surrounding the FSU. Seagrasses have been documented within San Juan Bay. These species were documented in shallow waters with depths of less than 15 feet (USACE, 2018). The surveyed depth at Wharf B, where the FSU moors, is about 23 to 28 feet (USCS, 2018). It is unlikely that seagrasses will be shaded by the FSU due to the depth of water at the wharf, which, along with periodic maintenance dredging, may preclude seagrass growth.

Wharf B and other wharves along the contiguous seawall on either side of the MFH Facility already exist and mooring in these locations has occurred as early as 1957, according to United States Geological Survey 7.5-minute quadrangle maps. Subsequently, the mooring of the FSU at Wharf B is unlikely to cause any new impacts on marine flora as a result of shading.

Hazardous Substances

The FSU is resupplied by ship-to-ship ("STS") transfer from shuttle vessels moored outboard of the FSU. Shuttle vessels resupply the fuel to the FSU by using the double-banked, STS transfer method similar to lightering. The STS LNG transfer to refill the FSU takes less than 24 hours for the port call with the cargo transfer requiring approximately 12 hours of pumping time. The nominal rate of pumping is within a range of up to 2,500 cubic meters per hour. Spills could occur during the transfer of LNG from the shuttle vessels to the FSU. As noted in section 3.2.3.1, the release of LNG would have a negligible effect on aquatic resources because the LNG would immediately vaporize out of the water.

Shuttle vessels are fitted with an array of LNG cargo monitoring and control systems. As required by International Maritime Organization ("IMO") conventions and industry standards, hold spaces and insulation areas are equipped with gas detection and low temperature alarms. These systems automatically monitor for leaks of LNG into the insulation systems, cargo containment tank barriers, and the hull structure adjacent to the cargo tank. In addition, hazard detection systems monitor compressor rooms, motor rooms, cargo control rooms, enclosed spaces in the cargo area, ventilation hoods and gas ducts, air locks, and other key cargo parameters during both transport and offloading operations. With implementation of these systems, impacts on fisheries would not be significant.

Other hazardous materials used in operating the shuttle vessels and FSU could inadvertently be released into aquatic habitat. To reduce the risk and severity of potential impacts on the waters of San Juan Bay during fuel transfers, NFEnergía and the vessel operators will adhere to conditions of the International Convention for the Prevention of Pollution from Ships ("MARPOL") and USCG standards for vessels in commerce, restricting the location or method of refueling and storage facilities, and requiring cleanup in the event of a spill or leak. The shuttle vessels will also adhere to a Garbage Management Plan for disposal of waste.

Ballast and Cooling Water

In general, marine vessels can affect aquatic habitat by altering water quality from ballast water or operational cooling water. The release of water can change the temperature, salinity, and oxygen levels of receiving waters, or cause a temporary resuspension of bottom sediments from the flow of water and increase in turbidity. Ballast water can also harbor a diverse assemblage of marine organisms that may be foreign and exotic to the carrier's port of destination.

During and immediately following ballast water discharges, benthic aquatic species may be affected by a change in salinity levels; however, the tidal flow of the harbor and ships moving into and out of the FSU berthing area will displace the water and circulate it into, around, and out of the berthing area. Additionally, discharged ballast water could contain low dissolved oxygen levels and could decrease existing dissolved oxygen levels within the immediate vicinity of the discharge point. Ballast water is typically stored in the ship's hull below the waterline and, as such, the temperature of ballast water will not be expected to vary significantly from the ambient temperature of the water outside the ship's hull. Based on the small volume (about 0.74 million gallons) of discharged ballast water relative to the volume of the bay, differences in temperature, salinity, and dissolved oxygen levels from ballast water are expected to be slight, having no measurable effect on aquatic life. Cooling water may also alter ambient temperatures; however, the FSU will not require cooling 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.

Exotic invasive marine species and diseases ("invasive species") may compete with native species for food and space, alter species composition, change predatoro-prey relationships, affect the overall health of an ecosystem, cause algal blooms and hypoxic conditions, and affect all trophic levels, resulting in a decline in biodiversity (e.g., see Tennessen, 2011 and CAB International, 2021).

Under normal operating conditions, ballast water will be taken onto the shuttle vessel during LNG offloading at the MFH Facility rather than discharged. To the extent there is potential for the shuttle vessels to discharge ballast water, they would exchange ballast water sourced from distant ports and waters at least 200 nautical miles from the nearest land in water at least 656 feet (200 meters) in depth where possible. If this were not possible, they would do the exchange as far from the nearest land as feasible and in all cases, at least 50 nautical miles from the nearest land or in areas designated by the Port State. The FSU intakes and discharges ballast water during loading and offloading LNG. However, as the FSU is semi-permanently moored adjacent to the MFH Facility, it exchanges its ballast water within San Juan Bay. In the event the FSU has ballast water sourced from distant ports or waters, it would implement measures similar to those discussed above with respect to the shuttle vessels. Therefore, no ballast water likely to contain invasive species will be discharged within the waters of San Juan Bay or near coastal areas. The FSU and shuttle vessels are also equipped with a Marine Growth Prevention System for control of macrofouling organisms within the seawater intake and ballast water systems. The Marine Growth Prevention System for the FSU utilize a zinc-aluminum anode array to prevent fouling of the water intake and ballast systems. The potential for spreading invasive species elsewhere will be minimized because ballast water discharges on the shuttle vessels and FSU are managed under ballast water management ("BWM") plans that comply with IMO's MARPOL, the United States Environmental Protection Agency ("USEPA") 2013 Vessel General Permit ("VGP"), and USCG regulations for vessels in commerce, as described below.

The IMO convention established Regulation B-1 of the 2004 "International Convention for the Control and Management of Ships' Ballast Water and Sediments"; the 2005 G4 (Marine Environment Protection Committee Resolutions ["MEPC Res."] 127(53)) "Guidelines for Ballast Water Management and Development of Ballast Water Management Plans"; 2005 G6 (MEPC Res. 124(53)) "Guidelines for Ballast Water Exchange"; and G9 (MEPC Res. 126(53)) "Procedure for Approval of Ballast Water Management Systems that make use of Active Substances." The BWM plans developed for the shuttle vessels and FSU comply with the MARPOL according to these guidelines and procedures. The BWM plans assist in complying with quarantine measures to minimize the risk of transplanting harmful aquatic organisms and pathogens.

Also, in 2018, the federal Vessel Incidental Discharge Act was signed into law. Vessel Incidental Discharge Act requires the USEPA to develop new national standards of performance for commercial vessel incidental discharges and for the USCG to develop corresponding implementing regulations, which are anticipated in 2022 (USEPA, 2021). Until that time, the USEPA 2013 VGP and current USCG ballast water regulations apply for operating vessels greater than 79 feet long within United States waters (USEPA, 2021), which applies to the shuttle vessels and FSU.

The VGP, a National Pollutant Discharge Elimination System ("NPDES") permit, sets numeric effluent limits for ballast water discharges, including maximum concentrations of living organisms in ballast water and maximum discharge limitations for biocides and residues. The shuttle vessels and FSU are over 300 gross tons and were required to submit a Notice of Intent to the USEPA requesting authorization under the VGP. VGPs were granted for the current FSU and shuttle vessels, and NFEnergía mandates that all of the vessels obtain the certifications and permits required to operate in the territorial waters of the United States.

USCG regulations (33 CFR 151, subpart D and 46 CFR 162.060) on "Standards for Living Organisms in Ships' Ballast Water Discharged in U.S. Waters; Final Rule" (77 FR 17254 [Mar. 23, 2012] and Navigation and Vessel Inspection Circular 01-18) provide guidance for the implementation of BWM system requirements. These governing regulations apply to all vessels that enter or operate within U.S. waters and are equipped with a ballast water system. The ballast water discharge standard (33 CFR 151.2030(a)) requires vessels calling at all U.S. ports to be equipped with a USCG-approved BWM system, which applies to all ships constructed on or after December 2013. The current FSU was built in 2017, and the current shuttle vessels were built in 2013 and 2018. Therefore, these USCG requirements apply to the current FSU and shuttle vessels.

While adherence to vessel operating regulations under the IMO, USEPA, and USCG would minimize the risk that invasive species would be introduced to San Juan Bay or otherwise spread to other areas, there would still be some risk of invasive species being transported on the hull of the shuttle vessels. Shuttle vessels will operate in compliance with 33 CFR § 151.2050, which would reduce this risk by requiring the removal of fouling organisms from a vessel's hull, piping, and tanks on a regular basis and disposal of any removed substances in accordance with local, state, and federal regulations.

The delivery of LNG by incoming shuttle vessels and LNG transfers from the FSU necessitates the intake of ballast water by the shuttle vessels and the FSU during LNG transfer operations. The FSU draws in seawater through sea chests for distribution and treatment for use in the various onboard operating systems. The source for seawater withdrawal and any

associated discharges is the waters of San Juan Bay. This could result in entrainment or impingement of aquatic organisms such as fish eggs, plankton, and juvenile fish. Given the current level of ship traffic and related activities in this part of San Juan Harbor, the intermittent incidental entrainment or impingement of aquatic organisms resulting from LNG deliveries for the MFH Facility is expected to have no significant impact on the ecology of San Juan Bay or the populations of managed fish species.

3.2.2.3 Conclusion

Based on the proportionately small increase in vessel traffic in well-traveled shipping lanes resulting from MFH Facility operation, the implementation of NFEnergía's ERPs to minimize releases of hazardous substances at the FSU and MFH Facility and the implementation of vessel BWM plans and VGP conditions to minimize the potential introduction of invasive species, operational impacts on fisheries and other aquatic resources are not expected to be significant.

3.2.3 Essential Fish Habitat Assessment

The Magnuson-Stevens Act established a management system for marine fisheries resources in the United States under the jurisdiction of NOAA Fisheries. The stated purposes of the Magnuson-Stevens Act include conserving and managing fishery resources; providing for the preparation and implementation of FMPs; establishing Regional Fishery Management Councils to prepare, monitor, and revise those plans; and promoting the protection of EFH in the review of activities conducted under Federal permits, licenses, or other authorities with the potential to affect EFH within the United States EEZ. In accordance with FERC guidelines for environmental reports for Natural Gas Act applications (18 CFR § 380.12(e)(6)), applicants are required to identify all federal EFH that potentially occurs in the vicinity of the proposed activity and provide the results of consultations with NOAA Fisheries to contribute to the development of an EFH Assessment ("EFHA"). This assists in planning and ultimately helps facilitate compliance with the consultation requirements set forth in 16 USC 1855 § 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act. In an email to NOAA Fisheries dated July 16, 2021, FERC designated NFEnergía as its non-federal designee to begin EFH consultation with NOAA Fisheries. NFEnergía has developed a draft EFHA, which was submitted to NOAA Fisheries on September 1, 2021, the content of which is provided below. Information regarding the results of consultation with NOAA Fisheries, including a final EFHA with mitigation strategies, will be included in a supplemental filing, as needed.

3.2.3.1 Essential Fish Habitat

Eight regional fishery management councils are responsible for developing FMPs, which identify managed fisheries, the fish species included in each fishery, and the EFH for each species. As discussed in section 3.2.2.2, MFH Facility operations occur within the area managed by the CFM Council, which has developed FMPs for the spiny lobster, reef fish, queen conch, and coral fisheries. In addition to the four FMPs developed by the CFM Council, the Consolidated Atlantic HMS FMP managed by NOAA Fisheries includes the waters of Puerto Rico (CFM Council, n.d.a).

EFH is defined as those habitats essential to managed marine, estuarine, and anadromous finfish, mollusks, and crustaceans and includes "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S.C. § 1802(10)) (see section 3.2.2.2). Per the NOAA Fisheries EFH Mapper accessed in June 2021, EFH for

numerous species within the five fisheries listed above occurs throughout the affected area in San Juan Bay and the Atlantic Ocean (see table 3-1). Mapped EFH that could be affected by MFH Facility operation are described below. According to the NOAA Fisheries EFH Mapper, there are no Habitat Areas of Particular Concern in the affected area.

Table 3-1: EFH Mapped in the Affected Area.

Mapped EFH by Fishery	San Juan Harbor	San Juan Bay	Atlantic Ocean
San Juan			
Atlantic HMS			
Blue Marlin (*Makaira nigricans*)	X (adult)	X (adult)	X (juvenile, adult)
White Marlin (*Kajikia albida*)	X (juvenile, adult)	X (juvenile, adult)	X (juvenile, adult)
Sailfish (*Istiophorus albicans*)	X (juvenile, adult)	X (juvenile, adult)	X (juvenile, adult)
Longbill Spearfish (*Tetrapturus pfluegeri*)	–	–	X (all)
Caribbean Reef Shark (*Carcharhinus perezi*)	X (all)	X (all)	X (all)
Oceanic Whitetip Shark (*Carcharhinus longimanus*)	X (all)	X (all)	X (all)
Yellowfin Tuna (*Thunnus albacares*)	–	–	X (eggs, larval, spawning)
Corals and Reef Associated Plants and Invertebrates	–	X (post-egg, larval)	X (larval)
Queen Conch (*Lobatus gigas*)	–	X (post-egg, larval)	X (larval)
Spiny Lobster (2 species)	–	X (post-egg, larval)	X (larval)
Reef fish (43 Species)	–	X (post-egg, larval)	X (larval)

Source: NOAA Fisheries EFH Mapper (accessed June 2021)
"X (all)" indicates all life stages are present in the species or management units listed.

San Juan Bay

Two areas of San Juan Bay were analyzed for EFH: what is referred to here as the San Juan Harbor at the FSU and MFH Facility, and the greater San Juan Bay crossed by the shuttle vessel routes.

San Juan Harbor contains habitat designated by NOAA Fisheries as EFH for species in the Atlantic HMS fishery, including the blue marlin, white marlin, sailfish, Caribbean reef shark, and oceanic whitetip shark (see table 3-1). Categories of mapped EFH in this area include benthic substrates (e.g., soft bottom habitats and submerged aquatic vegetation) and water column (pelagic) habitats immediately surrounding the FSU. Benthic substrates provide EFH for all life stages of Caribbean reef shark. No corals or seagrasses were observed within the project footprint at the MFH Facility (USACE, 2018). Pelagic habitat provides EFH for adult blue marlin; juvenile and adult white marlin; juvenile and adult sailfish; and all life stages of Caribbean reef shark and oceanic whitetip shark (CFM Council, n.d.a).

The portion of San Juan Bay crossed by the shuttle vessel routes is designated as EFH for the same species in the Atlantic HMS fishery that are listed above for San Juan Harbor, as well as for the corals fishery, the queen conch fishery, and the spiny lobster fishery (see table 3-1). The categories of EFH in this area include benthic substrates and pelagic habitats in marine open water in San Juan Bay. In addition to the life stages supported by benthic and pelagic habitat described above for the Atlantic HMS fishery, benthic substrates in this area also provide habitat for the post-egg and larval stages of corals, queen conch, spiny lobster, and reef fish (CFM

Council, n.d.b., n.d.c., n.d.d., 2021a). Suitable hardbottom habitat for corals and reef fish is likely limited to the approach and entrance to San Juan Bay.

Atlantic Ocean

The Atlantic Ocean north and west of Puerto Rico surrounding the shuttle vessel routes is designated as EFH for all the species listed above for San Juan Bay, along with additional species in the Atlantic HMS fishery, including the longbill spearfish and yellowfin tuna (see table 3-1).

Categories of mapped EFH in the Atlantic Ocean include benthic and pelagic habitat in marine open water. In addition to the life stages of HMS fishery species supported by benthic and pelagic habitat described above for San Juan Bay, pelagic habitat in the Atlantic Ocean also supports both juvenile and adult blue marlin, all life stages of longbill spearfish, and egg, larval, and spawning life stages of yellowfin tuna. Benthic habitat supports the larval stages of corals, queen conch, spiny lobster, and reef fish.

3.2.3.2 Essential Fish Habitat Impacts

No anchoring or dredging will be associated with the operation of the MFH Facility. Past construction at the MFH Facility included the replacement of existing piles in the water to support the overwater portion of the dock, which will continue to be used. Impacts on EFH from operation of the MFH Facility would primarily occur due to shuttle vessel traffic to the MFH Facility through the Atlantic Ocean and San Juan Bay. The shuttle vessel routes cross approximately 4.0 miles of EFH in San Juan Bay in established shipping lanes between 36 and 40 feet deep, and about 160 miles in the Atlantic Ocean in the shipping route extending from the EEZ to San Juan Bay at depths generally between about 3,000 and 10,000 feet. Shuttle vessels transporting LNG to the FSU make approximately 10 round trips per month, or 120 round trips per year, although the actual increase in ship traffic is likely to be partially offset by the decrease in ship traffic transporting other fuels that are being displaced by the LNG and natural gas made available at the MFH Facility (USACE, 2018).

Shuttle vessel traffic would primarily reduce habitat quality by generating noise; creating a hazard to aquatic organisms through the risk of physical collisions; and creating turbulence that can increase turbidity. The affected waterways constitute a highly trafficked area and shuttle vessels will use well-established shipping lanes. Therefore, impacts would be permanent but intermittent and minor.

While there may be a small risk of a shuttle vessel grounding and disturbing benthic habitat, this is not anticipated based on the vessels using only established shipping lanes, as well as the implementation of established USCG and San Juan Port Control safety protocols for commercial vessels traveling in San Juan Bay (USCG, 2018). Groundings in San Juan Bay are fairly uncommon; the USCG Sector San Juan reported two groundings in the Port of San Juan between 2008 and 2018 (USCG, 2018).

In general, marine vessels can also affect EFH through the release of ship ballast water. Ballast water can have different temperature, oxygen, and salinity levels than receiving waters, or may contain invasive species, particularly ballast water from vessels of foreign origination. The release of ballast water with different temperature, oxygen, and salinity levels can alter aquatic habitat conditions within the immediate vicinity of the discharge point, although the effects would generally be temporary as the water is mixed, particularly in large bodies of water. The

introduction of invasive species can have longer term effects on aquatic habitat by permanently altering species composition, increasing competition for resources, or changing predator–prey relationships (Tennessen, 2011; CAB International, 2021).

Under normal operating conditions, ballast water will be taken into the shuttle vessels during LNG offloading at the MFH Facility rather than discharged. To the extent there is potential for the shuttle vessels to discharge ballast water, they would exchange ballast water sourced from distant ports and waters at least 200 nautical miles from the nearest land in water at least 656 feet (200 meters) in depth where possible. If this is not possible, they would do the exchange as far from the nearest land as feasible and in all cases, at least 50 nautical miles from the nearest land or in areas designated by the Port State. The stationary FSU will typically use water from San Juan Harbor for ballast water exchange and, in the event it has ballast water sourced from distant ports or waters, would implement measures similar to those discussed above with respect to the shuttle vessels. Therefore, no ballast water likely to contain invasive species will be discharged within the waters of San Juan Bay or near coastal areas. In addition, the tidal flow of the harbor and ships moving into and out of the FSU berthing area will displace any ballast water released into San Juan Harbor and circulate it around and out of the berthing area, diluting any effects from altered oxygen, temperature, or salinity levels. Furthermore, any temperature difference between ballast water and the receiving water would likely be small because the ballast water is stored in the ship's hull below the waterline. The small volume of discharged ballast water from the vessels (about 0.74 million gallons) relative to the volume of the bay will also reduce any potential effects to habitat.

The potential for spreading invasive species elsewhere will be minimized because ballast water discharges from transiting vessels will be managed under BWM plans that comply with ballast water regulations and guidelines from IMO MARPOL (i.e., Regulation B-1 of the 2004 "International Convention for the Control and Management of Ships' Ballast Water and Sediments" and MEPC Res. 124[53], 126[53], and 127[53]; the 2018 federal Vessel Incidental Discharge Act [part of Public Law 115-282] along with the USEPA's 2013 VGP under the NPDES and USCG regulations for vessels in commerce [per 33 CFR § 151.2030 and 151.2050]). The FSU and shuttle vessels will also be equipped with a Marine Growth Prevention System for control of macrofouling organisms, which will use a zinc-aluminum anode array to prevent fouling of the seawater intake and ballast water systems. Therefore, impacts on EFH in San Juan Bay from ballast water exchange would be infrequent and negligible.

There would still be some risk of invasive species being transported on the hull of the shuttle vessels. Shuttle vessels will operate in compliance with 33 CFR § 151.2050, which would reduce this risk by requiring the removal of fouling organisms from a vessel's hull, piping, and tanks on a regular basis and disposal of any removed substances in accordance with local, state, and federal regulations.

Along with ballast water, the FSU and shuttle vessels draw in seawater through sea chests for distribution and treatment for use in the various onboard operating systems. Seawater withdrawal for ballast water and other uses could result in entrainment or impingement of aquatic organisms such as fish eggs, plankton, and juvenile fish. Given the current level of ship traffic and related activities in San Juan Bay, the intermittent incidental entrainment or impingement of aquatic organisms resulting from vessel operation is expected to have a minimal impact on EFH.

The FSU and shuttle vessels will also adhere to a garbage management plan. The revised IMO MARPOL Annex V with an entry into force date of 1 January 2013 limits the discharge of waste into the sea unless explicitly permitted under the Annex, which generally includes items such as food wastes, identified cleaning agents and additives, and cargo residues entrained in wash water, which are not harmful to the marine environment. Waste from the FSU will be pumped or disposed of onshore at appropriate facilities as much as possible. Further, grey water from the FSU will be pumped to shore for disposal and not discharged to the bay. Based on adherence to the MARPOL standards and the above measures, a reduction in EFH water quality from any release of permitted waste into San Juan Bay and the Atlantic Ocean would be intermittent and minor.

Spills of hazardous substances could occur during operations. The release of LNG, in the unlikely event that any were to come into contact with the water, would have a negligible impact on EFH because LNG would immediately vaporize out of the water. In addition, the shuttle vessels are fitted with an array of LNG cargo monitoring and control systems in compliance with IMO conventions and industry standards that automatically monitor for leaks of LNG (USCG, 2018). Potential surface water quality impacts associated with accidental spills or leaks of hazardous liquids (e.g., fuel or antifreeze) from LNG vessels are avoided or minimized by adherence to conditions of MARPOL and USCG standards for vessels in commerce, restricting the location or method of refueling and storage facilities, and requiring cleanup in the event of a spill or leak.

Hazardous materials such as fuel and antifreeze from trucks operating at the MFH Facility could also inadvertently be released into adjacent marine habitat. A spill containment system is installed and operating at the MFH Facility that routes spills away from process equipment and other exit points and gathers spilled material into an impoundment sump. To reduce the risk and severity of impacts should a spill occur, the MFH Facility will adhere to its ERPs, which are provided in appendices 1C and 11C in Resource Reports 1 and 11. The ERPs establish the procedures for responding to emergencies (e.g., spills) that may occur at the MFH Facility. The implementation of the ERPs should result in the minimization of damage to the environment, as well as personnel, equipment, and structures. As such, impacts on EFH from spills of hazardous substances would be minor.

Based on the information provided above, operation of the MFH Facility would have intermittent and negligible to minor adverse effects on EFH. There would be no permanent loss or conversion of EFH. Intermittent impacts would include disturbance to pelagic habitat from shuttle vessel traffic and the FSU in the Atlantic Ocean and San Juan Bay, and infrequent ballast water discharges and withdrawals in accordance with applicable regulations. These activities are consistent with existing activities in San Juan Bay and the Atlantic Ocean and would not measurably alter baseline conditions in these waterbodies. Therefore, adverse impacts on EFH in San Juan Bay and the Atlantic Ocean would not be substantial.

3.3 Wildlife

This section describes the common wildlife and invasive species present in the affected area and potential operational impacts on those species. Wildlife information is based on a review of existing, publicly available information including online sources, as discussed in more detail below.

3.3.1 Existing Wildlife

The affected area encompasses a 6.1-acre onshore MFH Facility in an industrial area. MFH Facility operations also require the non-jurisdictional use of offshore facilities including a semi-permanently moored FSU and shuttle vessels in marine habitat in San Juan Bay and the Atlantic Ocean. The MFH Facility is entirely paved and does not contain extant habitat other than potential artificial resting sites for certain seabirds. San Juan and the surrounding area where the MFH Facility is located are mapped as developed land and artificial barrens devoid of vegetation and aquatic habitat (Nytch et al., 2015). The nearest non-industrialized terrestrial habitat suitable for birds is 1.8 miles away from the MFH Facility at the Central Park of San Juan. Additionally, the Ciénaga Las Cucharillas Important Bird Area ("IBA") is about 1.85 miles west of the MFH Facility and provides habitat to over 70 species of birds (see section 3.5.3.2 for additional information).

The non-jurisdictional FSU and shuttle vessels do not support suitable habitat for terrestrial wildlife other than seabirds and shorebirds, which may use both terrestrial and marine habitat. For a discussion of marine or aquatic wildlife, see section 3.2. Federally and state-listed species and migratory birds specifically are discussed in section 3.5.

3.3.1.1 Common Wildlife

There have been 128 species of indigenous and migratory birds recorded within San Juan Bay (Sullivan et al., 2009). Examples of species frequently observed in San Juan include the Zenaida dove (*Zenaida aurita*), bananaquit (*Coereba flaveola)*, greater Antillean grackle (*Quiscalus niger*), rock pigeon (*Columbia livia*), gray kingbird (*Tyrannus dominicensis*), white-winged dove (*Zenaida asiatica*), and pearly-eyed thrush (*Turdus plumbeus*) (eBird, 2021). Seabirds and shorebirds found in the area include the magnificent frigatebird (*Fregata magnifcens*), royal tern (*Thalasseus maximus*), brown booby (*Sula leucogaster*), laughing gull (*Leucophaeus articilla*), sandwich tern (*Thalasseus sandvicensis*), spotted sandpiper (*Actitis macularius*), and least tern (*Sternula antillarum*) (eBird, 2021).

3.3.1.2 Invasive Species

Invasive species, along with habitat loss and resource use, have been identified as the main causes of species extinctions on Caribbean islands, as summarized in the *Puerto Rico State Wildlife Action Plan: Ten Year Review* (Departamento de Recursos Naturales y Ambientales, 2015). Under Executive Order 13112, a federal agency shall not authorize, fund, or carry out actions likely to cause or promote the introduction or spread of invasive plant and animal species in the United States, including Puerto Rico, unless it is determined that the benefits of such actions outweigh the potential harm and that all feasible and prudent measures to minimize risks are implemented.

Puerto Rico also regulates invasive species. Regulation No. 6765, for the Conservation and Management of Wildlife, Exotic Species, and Hunting in the Commonwealth of Puerto Rico, establishes lists of harmful invasive animal species that can be hunted throughout the year.

While there is no habitat available to support the establishment of invasive terrestrial species at the MFH Facility, marine habitats are also susceptible to invasive species such as fish, marine mollusks, crabs, shrimp, barnacles, tanaids, and even viruses (CCRI, n.d.; Garcia-Sais et al., n.d.). Numerous species have been introduced to Puerto Rican waters, including the southern

and northern quahog (*Mercenaria campechiensis* and *M. mercenaria*, respectively), purple sea mane jellyfish (*Drymonema dalmatinum*), red lionfish (*Pterois volitans*), black striped mussel (*Mytilopsis sallei*), Asian green mussel (*Perna viridis*), and Asian tiger shrimp (*Penaeus monodon*) (CCRI, n.d.; CAB International, 2021; Garcia-Sais et al., n.d.). The Global Invasive Species Database lists 11 marine species, including the red lionfish along with several fish, a jellyfish, a bryozoan, and a non-native coral that are threatening native fisheries and coral (2021). Puerto Rico is among the top four islands in the Caribbean basin with the greatest number of exotic species (CCRI, n.d.).

3.3.1.3 Wildlife Areas

Regulation No. 6765 of the Departamento de Recursos Naturales y Ambientales ("DRNA" [Department of Natural and Environmental Resources]) (February 11, 2004)—the Regulation to Govern the Conservation and Management of Wildlife, Exotic Species and Hunting in the Commonwealth of Puerto Rico—establishes a mechanism for the mitigation of natural habitats, among others. Section 2.03 (B) of the regulation provides a list of the different habitats categories to determine the mitigation required due to a modification of a natural habitat, which include the following:

- irreplaceable habitat;
- essential habitat;
- high ecological value habitat;
- ecological value habitat;
- natural habitat with great potential to become essential habitat, of high ecological value or of ecological value; and
- natural habitat with low potential to become essential habitat, of high ecological value or of ecological value.

None of these natural protected areas under Regulation 6765 of federal wildlife conservation areas occur in the affected area (Ortiz-Maldonado et al., 2019; Gould et al., 2011).

The Puerto Rico Critical Wildlife Areas provides comprehensive information on important wildlife and habitat resources in Puerto Rico (Ventosa-Febles et al., 2005). The purpose of this document is to protect and preserve critical wildlife habitats from degradation due to incompatible land use in a specific site or adjacent to the site area. The document identifies Las Cucharillas Marsh Natural Reserve as an area with conservation priority. This reserve is the closest natural area to the MFH Facility and is located about 0.5 mile to the west. The *Puerto Rico Critical Wildlife Areas* also recognizes the Buchanan Haystack Hills and Fort Buchanan Pond (1.3 miles to the southwest) as critical wildlife areas. Other wildlife areas include the Caño Martín Peña Nature Reserve located approximately 1.6 miles to the east and the San Patricio Urban Forest 1.3 miles to the southeast. All of these wildlife areas are outside of the affected area.

3.3.2 Operational Impacts and Mitigation

Operational activities occur year-round. The primary in-water activities during continued operations are non-jurisdictional vessel traffic in San Juan Harbor and the Atlantic Ocean, and the loading and transfer of LNG at the non-jurisdictional FSU to the MFH Facility. As discussed in section 3.2.2, FSU movement would be infrequent, unpredictable, and result in minor to negligible impacts.

3.3.2.1 Disturbance

Due to the lack of habitat in the industrialized location of the MFH Facility, few operational impacts on terrestrial wildlife, including seabirds or shorebirds, will occur. Minor permanent noise and light disturbance on birds in the vicinity of the MFH Facility may occur as a result of human activity, equipment operation, and vehicles. Temporary intermittent disturbance and displacement of seabirds and shorebirds resting or foraging in San Juan Bay could occur as a result of transiting shuttle vessels. These impacts are consistent with the existing level of disturbance from the surrounding industry in the Port of San Juan and will not appreciably increase impacts on wildlife.

3.3.2.2 Hazardous Substances

Operation of the MFH Facility could involve temporary, intermittent releases of hazardous substances through incidental spills or stormwater runoff that could sicken or cause mortality of seabirds and shorebirds in San Juan Bay through ingestion of contaminated water and food. As described in section 3.2.2, the design of the MFH Facility and vessels, use of a spill containment system, and implementation of ERPs and garbage management plan would reduce the risk of a spill or the contamination of stormwater runoff, and reduce impacts should these occur (see section 3.2.2 and appendices 1C and 11C in Resource Reports 1 and 11).

Operation of the FSU produces grey water, which is pumped from the FSU to shore for disposal (i.e., it is not discharged to the bay). Therefore, no seabird or shorebird food or water contamination will occur from substances in cleaning solutions that could be contained in FSU grey water.

3.3.2.3 Invasive Species

Vessels traveling through international waters can transport invasive species on ship hulls and in ballast water and introduce them into receiving waters through ballast water discharges or by being dislodged from fouled ship hulls (CCRI, n.d.). Once introduced, they can cause permanent and major harm to native species through predation, infection, or competition for resources (Garcia-Sais et al., n.d.).

Under normal operating conditions, it is expected that ballast water would be taken onto shuttle vessels during LNG offloading at the MFH Facility and no ballast water likely to contain invasive species would be discharged within the waters of San Juan Bay or near coastal areas. Further, the FSU would primarily withdraw and release ballast water with the waters of the San Juan Bay. As discussed in section 3.2.2.2, any release of ballast water sourced from distant ports would be conducted offshore and in accordance with vessel operating regulations under the IMO, USEPA, and USCG, including those for BWM plans, which will minimize the risk of invasive species being introduced to San Juan Bay. The FSU and shuttle vessels are also equipped with

a Marine Growth Prevention System for control of macrofouling organisms within the seawater intake and ballast water systems. There would still be some risk of invasive species being transported on the hull of the shuttle vessels. Shuttle vessels will operate in compliance with 33 CFR § 151.2050, which would reduce this risk by requiring the removal of fouling organisms from a vessel's hull, piping, and tanks on a regular basis and disposal of any removed substances in accordance with local, state, and federal regulations.

With adherence to the regulations above, the potential for shuttle vessels and the FSU to introduce invasive species through ballast water exchange or transport on vessels will be minimized.

3.3.2.4 Conclusion

Based on the minimal wildlife habitat in the affected area, existing anthropogenic disturbance, the implementation of NFEnergía's ERPs to minimize releases of hazardous substances, and the implementation of vessel BWM plans and VGP and USCG conditions to minimize the potential introduction of invasive species, operational impacts on common wildlife are not expected to be significant.

3.4 Vegetation

This section describes the vegetation resources that could be affected by operation of the MFH Facility. It includes descriptions of the various plant communities found in the affected area, descriptions of any unique or protected vegetation, and mitigation measures NFEnergía will employ to minimize impacts on these vegetation resources.

3.4.1 Existing Vegetation

Ecoregions are areas that have similar environmental resources and characteristics, including geology, physiography, vegetation, climate, soils, land use, wildlife, and hydrology (USEPA, 2006). Classification at the ecoregion level describes the broad-scale environmental factors that contribute to the dominant natural vegetation that may be within a particular region.

Baily's Ecoregions and Subregions of the United States, Puerto Rico, and the U.S. Virgin Islands shows Puerto Rico as occurring in the Humid Tropical Domain, Savanna Regime Mountains Division, Puerto Rico Province, and Dry-Humid Mountains Section (Baily, 2016; Stanford University, n.d.). Puerto Rico is the peak of a partially submerged mountain range between the Atlantic Ocean on the north and Caribbean Sea on the south. According to the description of the Puerto Rico Province, Puerto Rico has a tropical climate with almost uniform climatic conditions throughout the year (United States Forest Service, n.d.). San Juan averages 61 inches of rain annually, while average monthly temperatures in the area range from about 75°F in January to 80°F in July (United States Forest Service, n.d.). While most of Puerto Rico is under cultivation, rainforest remnants occur on the wet north slopes of mountains, dry forest associations on semiarid southern slopes, and mangrove swamps along much of the coast (United States Forest Service, n.d.).

Similar to ecoregions, the DRNA applies the Holdridge life zone model (Holdridge, 1967) to describe local habitats (DRNA, 2015; USFWS, 2015). Holdridge Life Zones are broad areas based on shared precipitation, biotemperature, and elevation (Lugo et al., 2016). The MFH Facility is located in the Subtropical Moist Forest Life Zone, which is the most widespread of the

six subtropical life zones identified on the island (DRNA, 2015; USFWS, 2015). Most of the Subtropical Moist Forest Life Zone has been deforested at some point since the climate is able to support a wide variety of crops (Ewel and Whitmore, 1973).

Operation of the MFH Facility requires the use of non-jurisdictional facilities (the FSU and shuttle vessels) which extend the affected area into marine habitat that may contain submerged aquatic vegetation (see sections 3.2 and 3.4.1.1). Federally and state-listed plant species are discussed in section 3.5.

3.4.1.1 Common Vegetation

The paved and fenced MFH Facility, with an overwater portion of the dock supported by piles in the water; contains no terrestrial or wetland vegetation. The FSU and shuttle vessels transit over marine habitat, including the San Juan Bay and the Atlantic Ocean.

The National Coast Condition Report IV (Virginia et al., 2012) lists the benthic index derived from sampling stations within San Juan Bay as having a consistently low score. The benthic species community is composed of a combination of sea grasses, macro-algae, invertebrates, sponges, and corals. Surveys conducted by NOAA Fisheries and the USACE in 2016 found paddle grass and turtle grass within San Juan Bay (USACE, 2018). Paddle grass has been found alone or in mixed communities with red and green macro-algae, while turtle grass occurs in scattered patches. Both species inhabit shallow water, generally at depths less than 15 feet (USACE, 2018). See section 3.2.1 for additional discussion of marine vegetation related to fish habitat.

3.4.1.2 Invasive Species

The federal Plant Protection Act designates certain non-native invasive species as noxious weeds due to their potential to harm agriculture, natural resources, public health, and/or the environment (7 USC 7701). As discussed in section 3.3.1, Executive Order 13112 puts restrictions on federal agencies in authorizing, funding, or carrying out actions that could introduce or spread invasive species in the United States. The federal Noxious Weed Act requires federal agencies to develop an undesirable plants management program on federal lands if a similar program is implemented on state or private lands in the same area, where undesirable plants are defined as “undesirable, noxious, harmful, exotic, injurious, or poisonous, pursuant to State or Federal law” (7 USC 2814). No federal lands would be crossed during operations; therefore, this regulation does not apply.

Puerto Rico also regulates invasive plant species at the state level. Regulation No. 6765 for the Conservation and Management of Wildlife, Exotic Species and Hunting in the Commonwealth of Puerto Rico establishes lists of harmful invasive plant species for which importation is prohibited. Of the species listed in Appendix 2 of Regulation No. 6765, two of the aquatic invasive species listed are marine species, Caulerpa seaweed (*Caulerpa taxifolia*) and Wakame seaweed (*Undaria pinnatifida*), while a third, common cord grass (*Spartina anglica*), is a salt marsh species. The remaining 28 species are either freshwater aquatic (one species) or terrestrial (27 species).

There would be no invasive plant populations established in the onshore MFH Facility because it is paved. There are no records of documented occurrences of invasive plant or algal species in the benthic habitat in San Juan Bay under the FSU and along the shuttle vessel routes.

3.4.2 Operational Impacts and Mitigation

Operational activities occur year-round. The primary in-water activities during continued operations are non-jurisdictional vessel traffic in San Juan Harbor and the Atlantic Ocean, and the loading and transfer of LNG at the non-jurisdictional FSU to the MFH Facility. As discussed in section 3.2.2, FSU movement would be infrequent, unpredictable, and result in minor to negligible impacts.

3.4.2.1 Hazardous Substances

As discussed in section 3.2.2, hazardous substances such as fuel could be released into San Juan Bay through incidental spills and temporarily damage or cause mortality of marine vegetation in the adjacent area. The design of the MFH Facility and vessels, use of a spill containment system, and implementation of ERPs and a garbage management plan would reduce the risk of a spill or the contamination of stormwater runoff, and reduce impacts should these occur (see section 3.2.2 and appendices 1C and 11C in Resource Reports 1 and 11). The release of LNG, in the unlikely event that any were to come into contact with the water, would have a negligible effect on marine vegetation because the LNG would immediately vaporize out of the water. Operation of the FSU also involves the production of grey water, which is pumped to shore for disposal (i.e., it is not discharged to the bay). Therefore, marine vegetation will not be affected by substances in cleaning solutions that could be contained in FSU grey water.

3.4.2.2 Invasive Species

There is no risk of spreading invasive plant or algal species at the onshore MFH Facility because it is on pavement. However, as discussed in section 3.2.2.2, invasive plant and algal species, including the invasive algal species listed under Regulation 6765, can be transported by vessels traveling through international waters and introduced into San Juan Bay through ballast water discharges or from being dislodged from fouled ship hulls (CCRI, n.d.; Tennessen, 2011). Once established, invasive species could have permanent and major impacts on native marine vegetation by outcompeting native species for resources, which could also alter local habitats for other marine organisms.

Under normal operating conditions, it is expected that ballast water will be taken onto the shuttle vessels during LNG offloading at the MFH Facility and no ballast water likely to contain invasive species will be discharged within the waters of San Juan Bay or near coastal areas. Further, the FSU would primarily withdraw and release ballast water with the waters of the San Juan Bay. As discussed in section 3.2.2.2, any release of ballast water sourced from distant ports would be conducted offshore and in accordance with vessel operating regulations under the IMO, USEPA, and USCG, including those for BWM plans. The FSU and shuttle vessels are also equipped with a Marine Growth Prevention System for control of macrofouling organisms within the seawater intake and ballast water systems. There would still be some risk of invasive species being transported on the hull of the shuttle vessels. Shuttle vessels will operate in compliance with 33 CFR § 151.2050, which would reduce this risk by requiring the removal of fouling organisms from a vessel's hull, piping, and tanks on a regular basis and disposal of any removed substances in accordance with local, state, and federal regulations.

Adherence to the regulations above will minimize the risk that invasive marine algae or plants would be introduced to San Juan Bay.

3.4.2.3 Conclusion

Based on the lack of terrestrial habitat in the affected area, the implementation of NFEnergía's ERPs to minimize releases of hazardous substances, and the implementation of vessel BWM plans and VGP and USCG conditions to minimize the potential introduction of invasive species, operational impacts on vegetation will not be significant.

3.5 Protected Species

This section describes the species that could be affected by operation of the MFH Facility that are protected under state (commonwealth) and federal laws, including the federal ESA, the New Wildlife Law No. 241 of Puerto Rico and its associated regulations, the Migratory Bird Treaty Act ("MBTA"), the Bald and Golden Eagle Protection Act ("BGEPA"), and the Marine Mammal Protection Act. The potential for species presence and the potential impacts on those species are analyzed below.

Operational activities would occur year-round. The primary in-water activities during continued operations are non-jurisdictional vessel traffic in San Juan Harbor and the Atlantic Ocean, and the loading and transfer of LNG at the non-jurisdictional FSU to the MFH Facility. As discussed in section 3.2.2, FSU movement would be infrequent, unpredictable, and result in minor to negligible impacts.

3.5.1 Federal Endangered Species Act

The purpose of the ESA is to protect imperiled species and their ecosystems and help in their recovery (USFWS, 2020). It is administered by the United States Fish and Wildlife Service ("USFWS") for terrestrial and freshwater species and NOAA Fisheries for marine species.

Section 9 of the ESA prohibits the take of endangered fish and wildlife species, where take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. It also prohibits the removal, possession, damage, or destruction of endangered plant species from areas under federal jurisdiction. Threatened species are either given equal protections to those of endangered species, or more refined protections established as a 4(d) rule under Section 4(d). Exemptions may be requested for Section 9 prohibitions under Section 10, as determined through consultation with the USFWS and NOAA Fisheries.

Section 7 of the ESA requires federal agencies to ensure that any actions authorized, funded, or carried out by the agencies do not jeopardize the continued existence of a federally listed threatened or endangered species, or result in the destruction or adverse modification of designated critical habitat ("DCH") for a federally listed species (16 USC § 1536(a)(2)). As the lead federal agency for authorizing operation of the MFH Facility, FERC is required under Section 7 to consult with the USFWS and NOAA Fisheries to determine whether federally listed, proposed, or candidate endangered or threatened species, or DCH or proposed critical habitat, are found in the action area and to evaluate the action's potential effects on those species or critical habitat, as described below. The action area for purposes of consultation under Section 7 of the ESA includes the FSU and MFH Facility locations along with the shuttle vessel routes, as shown on the attached figures (see figure 3-1).

The USACE completed consultation for the reconstruction of Wharf B as part of the development of the MFH Facility with the USFWS on September 25, 2018 and NOAA Fisheries

on December 13, 2018. For the current review, NFEnergía is acting as FERC's non-federal designee for informal consultation with the USFWS and NOAA Fisheries. NFEnergía initiated informal consultation with the USFWS and NOAA Fisheries on June 30, 2021 and August 2, 2021, respectively (see section 3.6 and appendix 3A). The species analysis and impact determinations are preliminary pending feedback from USFWS and NOAA Fisheries. Updates will be provided in a supplemental filing, as needed.

3.5.1.1 Species under U.S. Fish and Wildlife Jurisdiction

The USFWS has identified the species listed in table 3-2 as being potentially present in the action area. No threatened or endangered species are within the MFH Facility action area; however, three species occur in the areas where the non-jurisdictional FSU and shuttle vessels operate during MFH Facility operations.

Table 3-2: Federally Listed, Proposed, or Candidate Species and Federally Designated or Proposed Critical Habitat Under USFWS Jurisdiction Potentially Occurring in the Action area.

Common Name *Scientific name*	Federal Status	Operational Component	Suitable Habitat Within the Action area?	DCH in the Action area?	Determination of Effect
Mammals					
West Indian manatee *Trichechus manatus*	Threatened	Shuttle vessels and FSU	Yes	Nearest DCH is along the Florida coast about 900 miles northwest	NLAA
Reptiles					
Hawksbill sea turtle *Eretmochelys imbricate*	Endangered	Shuttle vessels and FSU	No	None designated under USFWS [a]	NE
Leatherback sea turtle *Dermochelys coriacea*	Endangered	Shuttle vessels and FSU	No	None designated under USFWS [a]	NE

Source: USFWS, 2021c

NE = no effect; NLAA = may affect, but not likely to adversely affect

[a] Critical habitat has been designated for hawksbill and leatherback sea turtles but is under the jurisdiction of NOAA Fisheries; see section 3.5.1.2.

NFEnergía conducted an initial review of each species listed in table 3-2. Documentation of this review was sent to the USFWS on June 30, 2021 to request technical assistance from the USFWS and verify the list of species requiring analysis (see section 3.6). NFEnergía submitted an informal consultation letter providing a preliminary analysis and impact determinations with proposed mitigation measures to the USFWS on August 9, 2021. Information regarding the results of agency consultations, including final impact determinations and mitigation strategies for species under USFWS jurisdiction, will be included in a supplemental filing, as needed.

Sea Turtles

The USFWS shares ESA authority with NOAA Fisheries for sea turtles. Pursuant to a joint Memorandum of Understanding (NOAA Fisheries, 1977; and USFWS, 1977), the USFWS has jurisdiction over sea turtles on land (nesting habitat) and NOAA Fisheries has jurisdiction over sea turtles in marine habitats. No impacts on sea turtles were identified in the USACE USFWS concurrence letter on September 25, 2018 for the reconstruction of Wharf B as part of the development of the MFH Facility.

Hawksbill sea turtles are widely distributed throughout the Caribbean Sea and western Atlantic Ocean. They occur in shallow coastal areas, oceanic islands, rocky areas, and coral reefs. They nest in low densities on scattered undisturbed deep-sand beaches in the tropics. The turtle comes onshore to nest and lay eggs and is known to utilize the beaches of several counties in Puerto Rico (USFWS, 2018b). The MFH Facility is paved, and does not provide nesting habitat for turtles. The closest known county to the MFH Facility with nesting beaches is Dorado, which is about 10 miles west of the MFH Facility. The DCH for the hawksbill sea turtle is around Mona Island, which is about 44 miles southwest of the coast of Puerto Rico (NOAA Fisheries, 2021c). This DCH is under NOAA Fisheries jurisdiction. As there is no nesting habitat within the action area, operation of the MFH Facility will have *no effect* on hawksbill sea turtles under USFWS' jurisdiction. A discussion on potential impacts on the hawksbill sea turtle under NOAA Fisheries' jurisdiction is included in section 3.5.1.2.

Leatherback sea turtles are commonly regarded as pelagic (open ocean) animals, but they also forage in coastal waters during breeding. The leatherback is the most migratory and wide ranging of sea turtle species. It prefers open ocean habitat outside of breeding season. Nesting sites within and near the United States occur in southeast Florida, Puerto Rico, and the United States Virgin Islands (USFWS, 2018c). The MFH Facility is paved and does not provide nesting habitat for turtles. DCH for the leatherback sea turtle is around the southwestern end of the island of St. Croix, which is about 65 miles southeast of the coast of Puerto Rico (NOAA Fisheries, 2021c). This DCH is under NOAA Fisheries jurisdiction. As there is no nesting habitat within the action area, operation of the MFH Facility will have *no effect* on leatherback sea turtles under USFWS jurisdiction. A discussion on potential impacts on the leatherback sea turtle under NOAA Fisheries' jurisdiction is included in section 3.5.1.2.

West Indian Manatee

In Puerto Rico, the West Indian manatee (Antillean subspecies) inhabits coastal shallow marine areas, but is occasionally encountered in freshwater (e.g., canals, rivers, and estuaries). The manatee is common along the east and south coast of Puerto Rico and is less abundant along the north coast (USFWS, 2018a). Per the 2018 consultation between the USFWS and the USACE for the construction of Wharf B, there is habitat for the manatee in the action area in San Juan Bay. The DCH for the West Indian manatee is along the Florida coast (NOAA Fisheries, 2021c). There is no DCH for the manatee in Puerto Rico.

Manatees could be encountered by shuttle vessels traveling through San Juan Bay. The risk of collision with shuttle vessels is reduced because the shuttle vessels will travel at slow speeds of about 6.5 knots (7.5 miles per hour) through San Juan Bay and use established, well-traveled shipping lanes that manatees are likely to avoid. To further minimize potential collisions between marine vessels and manatees, the *Vessel Strike Avoidance Measures* (NOAA Fisheries, 2021i) will be given to shuttle vessel captains to be implemented for manatees as well as other marine mammals. With implementation of these measures, potential collisions between marine vessels and manatees will be extremely unlikely to occur and are therefore discountable. Potential impacts on habitat from incidental releases of hazardous substances such as fuel from shuttle vessels, the FSU, or the MFH Facility will be avoided or minimized by ERPs (see section 3.2.2 and appendices 1C and 11C in Resource Reports 1 and 11). Impacts will generally be limited to insignificant vessel noise and turbidity consistent with disturbance from existing ship traffic in San Juan Bay. Therefore, operation of the MFH Facility *may affect, but is not likely to adversely affect,* the West Indian manatee.

3.5.1.2 Species under NOAA Fisheries Jurisdiction

The NOAA Fisheries Southeast Region Protected Resources Division's list of Puerto Rico's threatened and endangered species are shown in table 3-3 (NOAA Fisheries, 2021g). The NOAA Fisheries Southeast Region Protected Resources Division's geographical information system data for critical habitat (NOAA Fisheries, 2021c) shows DCH for four species in the action area: elkhorn and staghorn coral, and hawksbill and leatherback sea turtles (see table 3-3).

On August 3, 2021, NOAA Fisheries provided information listing potential impacts to be addressed. NFEnergía submitted an informal consultation letter providing a preliminary analysis and impact determinations with proposed mitigation measures to NOAA Fisheries on September 9, 2021. Information regarding the results of agency consultations, including final impact determinations and mitigation strategies for species under NOAA Fisheries jurisdiction, will be included in a supplemental filing, as needed.

Table 3-3: Federally Listed, Proposed, or Candidate Species and Federally Designated or Proposed Critical Habitat Under NOAA Fisheries Jurisdiction Potentially Occurring in the Action area.

Common Name *Scientific Name*	Federal Status	Operational Component	Suitable Habitat Present within the Action Area?	DCH Occurrence and Proximity to Project Area?	Determination of Effect
Corals					
Boulder star coral *Orbicella franksi*	Threatened	Shuttle vessels and FSU	Yes	None designated	NLAA
Elkhorn coral *Acropora palmata*	Threatened	Shuttle vessels and FSU	Yes	Occurs in coastal waters of Puerto Rico in the action area [a]	NLAA
Lobed star coral *Orbicella annularis*	Threatened	Shuttle vessels and FSU	Yes	None designated	NLAA
Mountainous star coral *Orbicella faveolata*	Threatened	Shuttle vessels and FSU	Yes	None designated	NLAA
Pillar coral *Dendrogyra cylindrus*	Threatened	Shuttle vessels and FSU	Yes	None designated	NLAA
Rough cactus coral *Mycetophyllia ferox*	Threatened	Shuttle vessels and FSU	Yes	None designated	NLAA
Staghorn coral *Acropora cervicornis*	Threatened	Shuttle vessels and FSU	Yes	Occurs in coastal waters of Puerto Rico in the action area [a]	NLAA
Mammals					
Fin whale (*Balaenoptera physalus)*	Endangered	Shuttle vessels and FSU	Yes	None designated	NLAA
Sei whale (*Balaenoptera borealis*)	Endangered	Shuttle vessels and FSU	Yes	None designated	NLAA
Sperm whale (*Physeter microcephalus*)	Endangered	Shuttle vessels and FSU	Yes	None designated	NLAA
Blue whale (*Balaenoptera musculus*)	Endangered	Shuttle vessels and FSU	Yes	None designated	NLAA
Fish					
Giant manta ray (*Manta birostris*)	Threatened	Shuttle vessels and FSU	Yes	None designated	NLAA
Shortfin mako shark (*Isurus oxyrinchus*)	Candidate [b]	Shuttle vessels and FSU	Yes	None designated	NLAA

Common Name *Scientific Name*	Federal Status	Operational Component	Suitable Habitat Present within the Action Area?	DCH Occurrence and Proximity to Project Area?	Determination of Effect
Nassau grouper *Epinephelus striatus*	Threatened	Shuttle vessels and FSU	Yes	None designated	NLAA
Oceanic whitetip shark (*Carcharhinus longimanus*)	Threatened	Shuttle vessels and FSU	Yes	None designated	NLAA
Scalloped hammerhead shark *Sphyrna lewini*	Threatened	Shuttle vessels and FSU	Yes	None designated	NLAA
Invertebrates					
Queen conch (*Strombus gigas*)	Candidate [b]	Shuttle vessels and FSU	Yes	None designated	NLAA
Sea Turtles					
Green sea turtle (*Chelonia mydas*)	Threatened	Shuttle vessels and FSU	Yes	Nearest DCH about 45 miles southeast in coastal waters off Culebra Island [c]	NLAA
Hawksbill sea turtle (*Eretmochelys imbricate*)	Endangered	Shuttle vessels and FSU	Yes	Nearest DCH about 4 and 7 miles southeast in coastal waters off Monito and Mona Islands, respectively [c]	NLAA
Leatherback sea turtle (*Dermochelys coriacea*)	Endangered	Shuttle vessels and FSU	Yes	Nearest DCH about 100 miles southeast in waters adjacent to Sandy Point Beach, St. Croix, U.S. Virgin Islands	NLAA
Loggerhead sea turtle (*Caretta caretta*)	Threatened	Shuttle vessels and FSU	Yes	DCH is only designated for the Northwest Atlantic Ocean Distinct Population Segment in the Atlantic Ocean and Gulf of Mexico at least 800 miles northwest	NLAA

Sources: NOAA Fisheries, 2021c,f

[a] Coastal waters for coral DCH in the action area includes the area within about 1 nautical mile off the northern coast of Puerto Rico; DCH does not include San Juan Bay (NOAA Fisheries, 2021c).

[b] Candidate are species that are undergoing a status review by NOAA Fisheries to determine whether they warrant listing as endangered or threatened under the ESA (NOAA Fisheries, 2020). While candidate species do not require Section 7 consultation, consideration of the species helps with future consultation should the species be proposed or listed during the life of the proposed action.

[c] Coastal waters for sea turtle DCH is defined as the area within 3 nautical miles of the designated islands (NOAA Fisheries, 2021c).

NLAA = may affect, but not likely to adversely affect

Corals

Elkhorn coral forms dense thickets in high-energy zones (e.g., water with a lot of wave action). This species is typically found in clear, shallow water with depths from 1 to 15 feet (NOAA Fisheries, 2021g). DCH for the species is located in the waters around Puerto Rico, including the area within about 1 mile off the north coast of Puerto Rico in the action area, but does not include San Juan Harbor (NOAA Fisheries, 2021c). The species was once one of the most abundant

corals in the Caribbean, but has declined by about 97 percent since the 1980s due to disease (NOAA Fisheries, 2021g).

Staghorn coral is typically found in clear, shallow water (e.g., depths of 15 to 60 feet) and can be found in a variety of coral reef habitats (NOAA Fisheries, 2021g). Like elkhorn coral, staghorn coral was once one of the most abundant corals in the Caribbean, but has declined by about 97 percent since the 1980s due to disease (NOAA Fisheries, 2021g). DCH for the species is located in the waters around Puerto Rico, including the area within about 1 mile off the north coast of Puerto Rico in the action area, but does not include San Juan Harbor (NOAA Fisheries, 2021c).

Boulder star coral builds large, encrusting plate colonies, which are commonly found in shaded overhangs (USACE, 2018). The species is not commonly found in shallow water (USACE, 2018). There is no DCH for this species (NOAA Fisheries, 2021c).

Mountainous star coral is native to the Caribbean Sea and the Gulf of Mexico (NOAA Fisheries, 2021g). This reef-building coral is typically found in water depths from 3 to 100 feet (USACE, 2018). There is no DCH for this species (NOAA Fisheries, 2021c).

Lobed star coral is found in the western Atlantic Ocean and is the most abundant species of reef-building coral in the Caribbean (NOAA Fisheries, 2021g). Lobed star coral can be found in most reef environments at depths as low as 165 feet; however, it is most common between 22 to 82 feet (USACE, 2018). There is no DCH for this species (NOAA Fisheries, 2021c).

Rough cactus coral is typically found in fore reef environments at depths between 16 to 100 feet, but is most abundantly found at depths of 32 to 65 feet (USACE, 2018). There is no DCH for this species (NOAA Fisheries, 2021c).

Pillar coral is found in the western Atlantic Ocean and the Caribbean Sea (NOAA Fisheries, 2021g) and resembles fingers or clusters of cigars that can reach heights of up to 10 feet (USACE, 2018). This species is typically found on back and fore reef environments at depths of 3 to 82 feet (USACE, 2018). There is no DCH for this species (NOAA Fisheries, 2021c).

Reef-building hard corals, like those listed above, provide habitat for a multitude of marine flora and fauna. Corals get food from photosynthetic algae (i.e., zooxanthellae) that live inside the coral's cells as well as by catching zooplankton via long, stinging tentacles (NOAA National Marine Sanctuaries, 2021). One of the greatest threats to corals is the warming of the oceans from climate change. When the water is too warm, corals will expel the zooxanthellae, which causes coral bleaching. While this does not kill the coral, it does stress the species and can increase the chances of mortality (NOAA National Ocean Service, 2021). In addition to coral bleaching, increased absorption of carbon dioxide from the atmosphere into the ocean is reducing the pH of seawater in a process known as ocean acidification, which reduces calcification rates in reef-building and reef-associated organisms (NOAA National Ocean Service, 2021).

Suitable habitat for the corals listed above, along with the DCH, could occur adjacent to the action area, primarily in the Atlantic Ocean near the entrance to San Juan Bay. The National Coast Condition Report IV (Virginia et al., 2012) lists the benthic index derived from sampling stations within San Juan Bay as having a consistently low score. The benthic species community is comprised of a combination of sea grasses, macro-algae, invertebrates, sponges, and corals. The hardbottom habitat essential for coral is primarily restricted to the entrance channel of San

Juan Bay (USACE, 2018). Within the bay, surrogate substrates can be found in the form of rocks, pilings, docks, and bulkheads. These can host a variety of encrusting species, including corals in the genera *Leptogorgia* and *Briareum* (USACE, 2018). The seven listed species of scleractinian corals occur along the northern coastline of Puerto Rico, none of which occur near the MFH Facility.

The shuttle vessels would cross DCH for elkhorn and staghorn corals within 1 mile of the north coast of Puerto Rico in the approach to San Juan Bay; the rest of the shuttle vessel route would occur greater than 1 mile from shore, outside of DCH (see figure 3-1 in appendix 3B). The shuttle vessel routes would occur within established, well-traveled shipping lanes. As such, suitable habitat within the DCH area is not likely to occur within the shuttle vessel route, which is maintained by the USCG and Port Authority at a 40-foot depth, but could occur in the adjacent area along with suitable habitat for other federally listed corals based on depths in the area, which increase to 100 feet about 0.5 mile from shore (NOAA, n.d.). The depths along the rest of the vessel route in the Atlantic Ocean out to the EEZ generally range between about 3,000 and 10,000 feet (NOAA, n.d.; Office of Coast Survey, 2021).

Approximately 120 shuttle vessels will visit the FSU annually, averaging about 10 round trips per month. This represents about a 4.5-percent increase in vessel traffic coming into San Juan Bay. This increase is anticipated to be partially offset or minimized by a decrease in ship traffic transporting other fuels (USCG, 2018). A direct impact on corals could include an accidental grounding of a shuttle vessel at the approach and entrance to San Juan Bay, which could have long-term impacts due to coral damage or from the release of fuel or other hazardous substances (also see the discussion of incidental spills below). Groundings in San Juan Bay are fairly uncommon; the USCG Sector San Juan reported two groundings in the Port of San Juan between 2008 and 2018 (USCG, 2018). Impacts from shuttle vessel groundings are unlikely given the established USCG and San Juan Port Control safety protocols for commercial vessels traveling in San Juan Bay (USCG, 2018). Therefore, impacts from a shuttle vessel grounding are considered discountable.

In general, marine vessels can affect aquatic habitat through the release of ship ballast water. Ballast water can have different temperature, oxygen, and salinity levels than receiving waters, or may contain invasive species, particularly ballast water from vessels of foreign origination. The release of ballast water with different temperature, oxygen, and salinity levels can alter aquatic habitat conditions within the immediate vicinity of the discharge point, although the effects would generally be temporary as the water is mixed, particularly in large bodies of water. The introduction of invasive species can have longer term effects on coral habitat such as by permanently altering the food chain or infecting coral with diseases such as stony coral tissue loss disease, which is affecting over 20 species of hard corals in the Caribbean, including regions where the shuttle vessels may travel to for LNG (The Nature Conservancy, 2021; Atlantic and Gulf Rapid Reef Assessment, 2021). It is not yet reported as occurring in Puerto Rico (Atlantic and Gulf Rapid Reef Assessment, 2021).

Under normal operating conditions, ballast water will be taken into the shuttle vessels during LNG offloading at the MFH Facility rather than discharged, while the stationary FSU will typically use water from San Juan Bay for ballast water exchange. Therefore, no ballast water likely to contain invasive species will be discharged within the waters of San Juan Bay or near coastal areas. The tidal flow of the harbor and ships moving into and out of the FSU berthing area will displace any FSU ballast water released into San Juan Bay and circulate it around and

out of the berthing area, diluting any effects from altered oxygen, temperature, or salinity levels. Furthermore, any temperature difference between ballast water and the receiving water would likely be small because the ballast water is stored in the ship's hull below the waterline. The small volume of discharged ballast water from the FSU (about 0.74 million gallons) relative to the volume of the bay will also reduce any potential effects to habitat.

The potential for spreading invasive species elsewhere will be minimized because ballast water discharges from vessels in transit will be managed under BWM plans that comply with ballast water regulations and guidelines from the IMO MARPOL (i.e., Regulation B-1 of the 2004 "International Convention for the Control and Management of Ships' Ballast Water and Sediments" and MEPC Res. 124[53], 126[53], and 127[53]; the 2018 federal Vessel Incidental Discharge Act [part of Public Law 115-282] along with the USEPA's 2013 VGP under the NPDES and USCG regulations for vessels in commerce [per 33 CFR § 151.2030 and 151.2050]). The FSU and shuttle vessels will also be equipped with a Marine Growth Prevention System for control of macrofouling organisms, which will use a zinc-aluminum anode array to prevent fouling of the seawater intake and ballast water systems.

Along with the minimal risk from ballast water due to normal operations and adherence to the national and international standards and regulations described above, no ballast water exchanges will take place where coral species and coral DCH are likely to occur at the approach and entrance to San Juan Bay. Shuttle vessels will withdraw water and the FSU will exchange local ballast water at the MFH Facility about 4 miles from suitable habitat near the entrance to the bay. Further, shuttle vessels will conduct any necessary ballast water exchanges in the Atlantic Ocean at least 200 nautical miles from the nearest land in water at least 656 feet (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, as least 50 nautical miles from the nearest land or in areas designated by the Port State.

There would still be some risk of invasive species being transported on the hull of the shuttle vessels. Shuttle vessels will operate in compliance with 33 CFR § 151.2050, which would reduce this risk by requiring the removal of fouling organisms from a vessel's hull, piping, and tanks on a regular basis and disposal of any removed substances in accordance with local, state, and federal regulations. Therefore, impacts from ballast water and vessel transport of invasive species on federally listed coral species are unlikely to occur and are discountable.

Incidental spills of hazardous materials such as fuel from shuttle vessels could occur in suitable coral habitat, which would cause a localized, temporary reduction in water quality and potentially harm coral in shallow water. However, the risk of an incidental spill will be avoided or minimized by adherence to an ERP and conditions of MARPOL and USCG standards for vessels in commerce. The release of LNG, in the unlikely event that any were to come into contact with the water, would have a negligible impact on coral habitat because LNG would immediately vaporize out of the water. In addition, the shuttle vessels are fitted with an array of LNG cargo monitoring and control systems in compliance with IMO conventions and industry standards that automatically monitor for leaks of LNG (USCG, 2018). Therefore, intermittent and minor impacts from an incidental spill of a hazardous substance would be insignificant.

In addition, the FSU and shuttle vessels will adhere to a garbage management plan. The revised IMO MARPOL Annex V with an entry into force date of January 1, 2013 limits the discharge of waste into the sea unless explicitly permitted under the Annex, which generally

includes items such as food wastes, identified cleaning agents and additives, and cargo residues entrained in wash water that are not harmful to the marine environment. Waste from the FSU will be pumped or disposed of onshore at appropriate facilities as much as possible. Grey water from the FSU will be pumped to shore for disposal and not discharged to the bay. Based on adherence to the MARPOL standards, intermittent and minor impacts on corals from any release of permitted waste into San Juan Bay and the Atlantic Ocean would be insignificant.

Based on the analysis above, the operation of the MFH Facility *may affect, but is not likely to adversely affect* federally listed coral species and elkhorn and staghorn coral DCH.

Mammals

The fin whale is the second largest whale species on Earth and is found throughout the world's oceans. The species is typically found in deep, offshore waters in temperate to polar latitudes. Fin whales are less common in warm, tropical waters; however, they are known to migrate to warmer waters for the breeding season. This baleen whale feeds on krill, small schooling fish, and squid (NOAA Fisheries, 2021g). There is no DCH for this species (NOAA Fisheries, 2021c).

The sperm whale is the largest of the toothed whales and is found in all deep oceans throughout the world. The distribution of the species is dependent on their food source and suitable conditions for breeding; however, females and young whales are thought to stay in tropical waters year-round. The sperm whale diet includes deepwater squid, sharks, skates, and fish (NOAA Fisheries, 2021g). There is no DCH for this species (NOAA Fisheries, 2021c).

The sei whale occurs in subtropical, temperate, and subpolar waters of the Atlantic, Indian, and Pacific Oceans. Movement patters of the species is not well known, but the whale is typically observed in deep waters far from the coastline. This baleen whale feeds on copepods and krill (NOAA Fisheries, 2021g). There is no DCH for this species (NOAA Fisheries, 2021c).

The blue whale is the largest animal on Earth. The species can be found in all oceans except the Arctic. Blue whales typically migrate seasonally between summer feeding grounds and winter breeding grounds; however, not all individuals will migrate. This baleen whale feeds almost exclusively on krill (NOAA Fisheries, 2021g). There is no DCH for this species (NOAA Fisheries, 2021c).

Whales could collide with or be hit by shuttle vessels in the Atlantic Ocean, resulting in injury or mortality. The risk of collision with shuttle vessels is reduced because the shuttle vessels will use established, well-traveled shipping lanes. To further minimize potential collisions between vessel traffic and protected marine species, the Southeast Region of NOAA Fisheries has developed *Vessel Strike Avoidance Measures* (NOAA Fisheries, 2021i). These are standard measures to be implemented to reduce the risk associated with vessel strikes or disturbance of marine species. Measures include, but are not limited to, informing personnel of the protected species that could be present, maintaining a watch for protected species, and maintaining a buffer zone and reducing vessel speeds if species are sighted. NFEnergía will provide the *Vessel Strike Avoidance Measures* to shuttle vessel captains, who will implement the measures identified in the document. With implementation of these measures and the use of established shipping lanes, potential collisions between shuttle vessels and whales will be unlikely to occur and are therefore discountable.

As discussed above for corals, ballast water exchanges can introduce invasive species or cause changes to ambient water temperature and salinity. Infrequent ballast water exchanges by the shuttle vessels could take place in whale habitat in the Atlantic Ocean, which would cause a temporary, localized effect on whale habitat. Adherence to BWM plans in compliance with applicable international and national regulations and standards, as described above for corals, would reduce potential impacts on whale habitat. Based on the small area affected relative to the surrounding habitat and adherence to regulations and standards, impacts on whales from ballast water exchange would be insignificant.

Incidental spills of hazardous substances such as fuel or ship waste from shuttle vessels in the Atlantic Ocean would cause a localized, temporary reduction in water quality and could harm whales. However, whales are highly mobile and could be expected to move away from affected water. The release of LNG, in the unlikely event that any were to come into contact with the water, would have a negligible impact on whales because LNG would immediately vaporize out of the water. In addition, adherence to an ERP and MARPOL and USCG standards for vessels in commerce, including a garbage management plan, will reduce the risk presented by a potential release of hazardous substances and waste on whales, as discussed above for corals. Consequently, impacts on whales from an incidental spill of a hazardous substance or release of waste would be insignificant.

Other impacts on whales could include vessel noise and wave disturbance consistent with disturbance from existing ship traffic in established shipping lanes. Given existing levels of disturbance, these impacts would be insignificant.

Based on the analysis above, operation of the MFH Facility *may affect, but is not likely to adversely* affect the fin, sperm, sei, and blue whales.

Fish

The threatened Nassau grouper is a reef fish associated with hardbottom habitat such as reefs, rocks, and ledges, which could occur in the action area in the Atlantic Ocean near the approach and entrance to San Juan Bay, as noted above for corals. The grouper is typically found on high-relief coral reefs or rocks in clear water. The species is found throughout the tropical and subtropical waters of the western North Atlantic Ocean. Adult fish feed on smaller fish and juveniles eat a variety of fish and invertebrates such as shrimp and crabs (NOAA Fisheries, 2021g). Threats to the species include overfishing.

The threatened giant manta ray is commonly found offshore; however, it is also found in coastal areas, bays, and intercoastal waterways, as well as estuarine waters near oceanic inlets, with the use of these waters as potential nursery grounds (NOAA Fisheries, 2021g). Giant manta ray are noted to have been observed infrequently in the action area near the entrance to San Juan Bay near channel marker buoys (USACE, 2020). The manta ray is a filter feeder and its diet consists mainly of zooplankton. Threats to the giant manta ray include over fishing, accidental bycatch, and harvest for international trade.

The threatened oceanic whitetip shark is found offshore in the open ocean in tropical and subtropical waters, generally in water depths greater than about 500 to 600 feet (USACE, 2020; NOAA Fisheries, 2021g). Suitable habitat could therefore occur in the offshore portion of the shuttle vessel routes in the Atlantic Ocean. The primary threat to the whitetip shark is incidental bycatch in commercial fisheries.

Scalloped hammerhead shark is a globally occurring species found in the waters surrounding Puerto Rico (NOAA Fisheries, 2021g). The species may occur in the action area up to at least 9 nautical miles from the Puerto Rico shore based on recreational fishery data (USACE, 2020). The species can be found in both intertidal and pelagic waters. Threats to the species include commercial fishing for the shark fin trade.

The shortfin mako shark is under review by NOAA Fisheries to determine its status under the ESA (NOAA Fisheries, 2021a). The species is highly migratory and is found in all temperate and tropical ocean waters, including the Caribbean Sea (NOAA Fisheries, 2021d). The shark spends the majority of its time in the upper portion of the water column (NOAA Fisheries, 2021d). The species may occur in the action area within the shuttle vessel transit routes in the Atlantic Ocean. The greatest threat to the shortfin mako shark is overharvesting.

Shuttle vessels carrying LNG will travel through the Atlantic Ocean and San Juan Bay to the FSU, raising the potential for collisions between shuttle vessels and sharks and rays, primarily in the Atlantic Ocean. The potential for collisions is low because the shuttle vessels will use established, well-traveled shipping lanes, and because the species are highly mobile and would likely avoid the noise and turbulence associated with the vessels. In addition, the oceanic whitetip shark would generally occur at depths that would not be disturbed by the shuttle vessels. Similarly, direct impacts on the Nassau grouper from shuttle vessels are unlikely because most reported vessel strikes involve large whales or other large species that frequent the ocean surface. The Nassau grouper is a pelagic species that does not typically spend time at the surface of the water; rather, the larger fish tend to occupy deeper reef areas with greater vertical relief (NOAA Fisheries, 2021c). Further, suitable habitat for Nassau grouper would primarily occur at the entrance to San Juan Bay where vessels would be slowing down to enter the harbor. From the Atlantic Ocean to the pilot station, shuttle vessels will slow to about 7 to 8 knots (8 to 9 miles per hour [mph]), will travel at about the same speed across the breakwater, and will then travel at "dead slow ahead" (6.5 knots or 7.5 mph) through San Juan Bay. Collisions with giant manta rays, shortfin mako sharks, and scalloped hammerhead shark that could occur in this area would also be less likely given the reduced vessel speeds. To further minimize the risk of potential collisions between vessel traffic and federally listed fish species, NFEnergía will provide the *Vessel Strike Avoidance Measures* (NOAA Fisheries, 2021i) document to LNG carrier captains, as discussed for whales above. With implementation of the *Vessel Strike Avoidance Measures* and based on the information above, potential collisions between marine vessels and federally listed fish would be unlikely to occur and are therefore discountable.

As discussed above for corals, ballast water exchanges can introduce invasive species or cause changes to ambient water temperature and salinity. Ballast water exchanges by the shuttle vessels could take place in shark and ray habitat in the Atlantic Ocean and by the FSU using local water in San Juan Bay. Adherence to BWM plans in compliance with applicable international and national regulations and standards, as described above for corals, would reduce potential impacts. Ballast water discharges by the FSU would not be expected to have a measurable effect on federally listed fish species in San Juan Bay because the FSU would use bay water. Ballast water intakes by the shuttle vessels and FSU in San Juan Bay could result in entrainment or impingement against the intake screens of small aquatic organisms such as fish eggs, plankton, and juvenile fish, potentially affecting prey species of the giant manta ray, which includes planktonic organisms. Given the abundant adjacent habitat in San Juan Harbor, the intermittent entrainment or impingement of prey species during MFH Facility operation would have an

insignificant impact on food sources for giant manta ray. In conclusion, impacts on federally listed fish species from ballast water exchange would be insignificant.

Incidental spills of hazardous substances such as fuel or ship waste from shuttle vessels in the Atlantic Ocean would cause a localized, temporary reduction in water quality and could harm fish. However, fish are highly mobile and could be expected to move away from affected water. The release of LNG, in the unlikely event that any were to come into contact with the water, would have a negligible impact on fish because LNG would immediately vaporize out of the water. In addition, as described above for corals, adherence to an ERP and MARPOL and USCG standards for vessels in commerce, including a garbage management plan, will reduce the risk presented by a potential release of hazardous substances and waste on fish, while grey water from the FSU will be pumped to shore for disposal and not discharged to the bay. Consequently, impacts on fish from an incidental spill of a hazardous substance or release of waste would be insignificant.

Other impacts on fish could include vessel noise and wave disturbance consistent with disturbance from existing ship traffic in established shipping lanes. Given existing levels of disturbance, these impacts would be insignificant.

MFH Facility operations would not result in any reduction in federally listed fish species foraging habitat because there would be no direct disturbance to habitat through anchoring or other activity in marine habitat. The FSU is semi-permanently moored to the MFH Facility dock, and the shuttle vessels temporarily moor to the FSU during LNG offloading. Past construction at the site included the installation of piles in the water to support an overwater portion of the dock, which will continue to be used. In past consultation between the USACE and NOAA Fisheries, NOAA Fisheries determined that pile installation and other past construction activities for the wharf improvements at the MFH Facility were *not likely to adversely affect* federally listed fish species (NOAA Fisheries, 2018).

Based on the analysis above, operation of the MFH Facility *may affect, but is not likely to adversely affect* the oceanic whitetip shark, giant manta ray, Nassau grouper, and scalloped hammerhead shark. In addition, should the shortfin mako shark become proposed for listing under the ESA, operations are not likely to jeopardize the continued existence of the species. If listed, operations *may affect, but are not likely to adversely affect* the shortfin mako shark.

Invertebrates

Queen conch live in sand flats, seagrass beds, and are associated with coral reefs (NOAA Fisheries, 2021e). They occur in about 7 to 13 feet (2 to 4 meters) of water (NOAA Fisheries, 2021i). The species is herbivorous and eats plant and surface algal material. The queen conch is under review by NOAA Fisheries to determine its status under the ESA (NOAA Fisheries, 2021a). The conch is often found in sandy spurs that cut into offshore reefs, and share habitat with reef fish and coral reef resources (CFM Council, n.d.c). Suitable habitat for the queen conch could occur adjacent to the action area, primarily in the Atlantic Ocean near the entrance to San Juan Bay.

One of the greatest threats to the queen conch is overharvesting; the species is highly sought after for its meat (NOAA Fisheries, 2021e). The conch's biological characteristics (e.g., slow growth, late maturation, limited mobility, occurrence in shallow waters, and tendency to aggregate) make the species particularly vulnerable to overharvest.

Potential impacts on the queen conch as a result of operation of the MFH Facility are similar to those described for coral and fish species above due to shuttle vessel transit through the San Juan Bay and Atlantic Ocean. Potential impacts include disturbance from vessel groundings, invasive species, ballast water exchange, and incidental releases of hazardous materials and vessel waste. These impacts are considered minor or unlikely to occur, and therefore insignificant or discountable. In addition, MFH Facility operations would not result in any reduction in queen conch habitat because there would be no direct disturbance through anchoring or other activity in marine habitat.

Based on the analysis listed above, should the queen conch become proposed for listing under the ESA, operation of the MFH Facility is not likely to jeopardize the continued existence of the species. If listed, operations *may affect, but are not likely to adversely affect* the queen conch.

Sea Turtles

Hawksbill sea turtles are widely distributed throughout the Caribbean Sea and western Atlantic Ocean and could occur in the shuttle vessel routes in the Atlantic Ocean and San Juan Bay. They occur in shallow coastal areas, oceanic islands, rocky areas, and coral reefs (USFWS, 2018b). Critical habitat under NOAA Fisheries jurisdiction has been designated for the hawksbill sea turtle in the coastal waters around Monito and Mona Islands, which are about 44 miles southwest of the Puerto Rican coast. The DCH for the two species extends out to 3 nautical miles from Monito and Mona Islands and occurs 4 and 7 miles southeast of the shuttle vessel route in the Atlantic Ocean, respectively (NOAA Fisheries, 2021c) (see figure 3-1).

Leatherback sea turtles are commonly regarded as pelagic (open ocean) animals, but they also forage in coastal waters during breeding and could occur in the shuttle vessel routes in the Atlantic Ocean and San Juan Bay. The leatherback is the most migratory and wide ranging of sea turtle species. It prefers open ocean habitat outside of breeding season (USFWS, 2018c). Critical habitat under NOAA Fisheries jurisdiction has been designated for the leatherback sea turtle around the southwestern end of the island of St. Croix, which is about 65 miles southeast of the coast of Puerto Rico and 100 miles southeast of the action area in the Atlantic Ocean (NOAA Fisheries, 2021c).

Green sea turtles usually frequent shallow water areas where marine grasses and algae are present (NOAA Fisheries, 2021g). Paddle grass, turtle grass, and macro-algae are known to grow at depths of less than 15 feet in San Juan Bay (USACE, 2018), which would provide green sea turtle habitat, and green sea turtles have been reported in the action area based on information from the DRNA, Endangered Species Program (2021); therefore, green sea turtles may be present in the action area shuttle vessel routes and near the FSU in San Juan Bay. Critical habitat under NOAA Fisheries jurisdiction has been designated for the green sea turtle around Culebra Island, which is about 18 miles east of the Puerto Rican coast and 45 miles southeast of the action area in the Atlantic Ocean (NOAA Fisheries, 2021c).

Loggerhead sea turtles can be found in the open sea as well as in bays, lagoons, canals, coral reefs, and rocky areas (NOAA Fisheries, 2021g). The species is noted to be extremely rare around Puerto Rico (USACE, 2020). Critical habitat under NOAA Fisheries jurisdiction has been designated for the loggerhead sea turtle Northwest Atlantic Ocean Distinct Population Segment in the Atlantic Ocean off the southeast coast of the United States and in the northern Gulf of Mexico about 800 miles northwest of the action area (NOAA Fisheries, 2021c).

Sea turtles could be encountered by shuttle vessels traveling through the Atlantic Ocean and San Juan Bay, resulting in sea turtle injury or mortality. The risk of collision with shuttle vessels is reduced because the shuttle vessels will use established, well-traveled shipping lanes, and because the bow wave of large vessels pushes water and small objects (such as sea turtles) away from the front of the vessel. Furthermore, shuttle vessels will move relatively slowly in and while approaching San Juan Bay, reducing the risk of collisions in this area; from the Atlantic Ocean to the pilot station, shuttle vessels will slow to about 7 to 8 knots (8 to 9 miles per hour [mph]) and will then travel at 6.5 knots or 7.5 mph through San Juan Bay. To further minimize potential collisions between marine vessels and sea turtles, the *Vessel Strike Avoidance Measures* (NOAA Fisheries, 2021i) will be given to shuttle vessel captains to be implemented for sea turtles as well as marine mammals. With implementation of these measures, potential collisions between marine vessels and sea turtles will be extremely unlikely to occur and are therefore discountable.

As discussed above for corals, ballast water exchanges can introduce invasive species or cause changes to ambient water temperature and salinity. Ballast water exchanges by the shuttle vessels could take place in sea turtle habitat in the Atlantic Ocean and by the FSU using local water from San Juan Bay. Adherence to BWM plans in compliance with applicable international and national regulations and standards, as described above for corals, would reduce potential impacts on sea turtles. In addition, ballast water exchanges by the FSU would not be expected to have a measurable effect on sea turtles in San Juan Bay because the FSU would use bay water. While ballast water intakes by the shuttle vessels and FSU could potentially result in impingement of small organisms against intake screens, which could include sea turtle hatchlings, there is no nesting habitat adjacent to San Juan Bay; the closest known sea turtle nesting beach is in Dorado County, about 10 miles west of the MFH Facility. Therefore, sea turtle hatchlings are not expected to occur in San Juan Bay and would not be affected. In conclusion, impacts on sea turtles from ballast water exchange would be insignificant.

Incidental spills of hazardous substances such as fuel or ship waste from shuttle vessels and the FSU would cause a localized, temporary reduction in water quality and could harm sea turtles. However, sea turtles are highly mobile and could be expected to move away from affected water. The release of LNG, in the unlikely event that any were to come into contact with the water, would have a negligible impact on sea turtles because LNG would immediately vaporize out of the water. In addition, as described above for corals, adherence to an ERP and MARPOL and USCG standards for vessels in commerce, including a garbage management plan, will reduce the risk presented by a potential release of hazardous substances and waste on sea turtles, while grey water from the FSU will be pumped to shore for disposal and not discharged to San Juan Bay. Consequently, impacts on sea turtles from an incidental spill of a hazardous substance or release of waste would be insignificant.

Other impacts on sea turtles could include vessel noise and wave disturbance consistent with disturbance from existing ship traffic in established shipping lanes. Given existing levels of disturbance, these impacts would be insignificant.

MFH Facility operations would not result in any reduction in sea turtle foraging habitat because there would be no direct disturbance to habitat through anchoring or other activity. The FSU is semi-permanently moored to the MFH Facility dock, and the shuttle vessels temporarily moor to the FSU during LNG offloading. Past construction at the site included the installation of piles in the water to support an overwater portion of the dock, which will continue to be used. In

past consultation between the USACE and NOAA Fisheries, NOAA Fisheries determined that pile installation and other past construction activities for the wharf improvements at the MFH Facility were *not likely to adversely affect* federally listed sea turtles (NOAA Fisheries, 2018).

Based on the analysis above, operation of the MFH Facility *may affect, but is not likely to adversely affect* hawksbill, leatherback, green, and loggerhead sea turtles.

3.5.2 State Endangered Species Regulations

The DRNA is authorized to protect Puerto Rico's wildlife resources through the New Wildlife Law for Puerto Rico (New Wildlife Law; Law No. 241, August 15, 1999)[1] along with its associated regulations, including Regulation No. 6765 for the Conservation and Management of Wildlife, Exotic Species and Hunting in the Commonwealth of Puerto Rico (see sections 3.3.1.2 and 3.3.1.3) and Regulation No. 6766 (DRNA, 2004) to Govern the Vulnerable Species in Danger of Extinction in the Commonwealth of Puerto Rico (2016). The New Wildlife Law and Regulation 6766 include prohibitions on the modification of natural habitat and critical natural habitat without a mitigation plan approved by the DRNA. The New Wildlife Law also prohibits the taking or destroying of the individuals, nests, eggs, or young of wildlife species without the prior authorization of the Secretary of the DRNA except invertebrates and flora found on private land that has not been designated by regulation. Regulation 6766 also establishes a list of plant and animal species that are designated by the Secretary of the DRNA as vulnerable or endangered, along with critical habitat (state species and state critical habitat). The regulation further prohibits certain impacts on vulnerable and endangered species and their critical habitats including, but not limited to, destruction, harassment, and habitat modification with the prior authorization of the Secretary or DRNA.

Puerto Rico has 339 state-designated vulnerable or endangered species, along with state-DCHs for 18 of those species. NFEnergía submitted a request to the DRNA for a list of state species and critical habitat that could occur in the affected area on July 1, 2021. The DRNA provided a response with a list of species that have been reported for the affected area (see table 3-4).

The potential for species and critical habitat to occur in the affected area and experience operational impacts is discussed below based on their reliance on terrestrial or marine habitat.

[1] New Wildlife Law of Puerto Rico: see https://bvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/Recursos%20Naturales/241-1999/241-1999.pdf.

Table 3-4: MFH Facility State-Listed Species and State-Designated Critical Habitat in the Affected Area.

Species	State Status	Operational Component	Suitable Habitat Within the Affected Area?	Critical Habitat Occurrence and Proximity to Affected Area?
Birds				
Brown pelican (*Pelecanus occidentalis*)	Endangered	Shuttle vessels and FSU	Yes	None designated
Marine Mammals				
West Indian manatee (*Trichechus manatus manatus*) [a]	Endangered	Shuttle vessels and FSU	Yes	Nearest state-DCH is about 30 miles southeast near the eastern coast in the area of Ceiba / Naguabo, Puerto Rico.
Reptiles				
Green sea turtle (*Chelonia mydas*) [a]	Endangered	Shuttle vessels and FSU	Yes	Nearest state-DCH about 45 miles southeast in coastal waters off Culebra Island.

Source: DRNA, 2021

[a] Species are also federally listed species under the federal ESA (see section 3.5.1).

3.5.2.1 Brown Pelican

The brown pelican can be found in bays, ports, large rivers, keys, lakes, lagoons, and estuaries in Puerto Rico (DRNA, 2016). The estimated population in Puerto Rico is 60 to 150 breeding pairs, which migrate from the Virgin Islands. Threats to the species include low reproductive success, high juvenile mortality, limited nesting habitat, egg predation and juveniles by rats and hermit crabs, and human disturbance (DRNA, 2016). Pelicans feed on small fish that form schools near the water surface, such as mullet, anchovies, and herring (The Cornell Lab, 2019). Pelicans feed from the air, diving to the water once it locates its prey (The Cornell Lab, 2019).

Brown pelicans could occur resting and foraging in San Juan Bay, including along the shuttle vessel route. The species may also temporarily roost on structures within the MFH Facility. As discussed in section 3.3.2, operational impacts could include noise, light, and physical disturbance from operation of the MFH Facility, FSU, and transiting shuttle vessels. Because the species is highly mobile and shuttle vessels would be traveling at slow speeds through the bay (about 6.5 knots or 7.5 mph), brown pelicans would be expected to move out of the way and not be harmed.

Incidental spills of hazardous substances such as fuel or ship waste from shuttle vessels and the FSU would cause a localized, temporary reduction in water quality that could harm brown pelicans or their prey. As discussed above, brown pelicans are highly mobile and could be expected to move away from affected water. The release of LNG, in the unlikely event that any were to come into contact with the water, would have a negligible impact on brown pelican habitat because LNG would immediately vaporize out of the water. In addition, as described in section 3.5.1, adherence to the ERPs (see section 3.2.2 and appendices 1C and 11C in Resource Reports 1 and 11) and MARPOL and USCG standards for vessels in commerce, including a garbage management plan, will reduce the risk presented by a potential release of hazardous substances and waste on brown pelicans and their prey, while grey water from the FSU will be

pumped to shore for disposal and not discharged to San Juan Bay. Consequently, impacts on brown pelicans from an incidental spill of a hazardous substance or release of waste would be intermittent, temporary, and minor.

3.5.2.2 West Indian Manatee

See section 3.5.1.1 for a discussion of potential impacts and mitigation for West Indian manatee, which is also a federally listed species. No state-DCH for West Indian manatee occurs in the affected area and would therefore not be affected.

3.5.2.3 Green Sea Turtle

See section 3.5.1.1 for a discussion of potential impacts and mitigation for green sea turtle, which is also a federally listed species. No state-DCH for green sea turtle occurs in the affected area and would therefore not be affected.

3.5.3 Migratory Bird Treaty Act

The MBTA of 1918, as amended, implements treaties for the protection of migratory birds. The MBTA prohibits hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting, or exporting migratory birds, parts, nests, and eggs covered by the MBTA. Non-native birds are not covered by the MBTA. Section 3 of the MBTA requires federal agencies to promote migratory bird population conservation, which includes an analysis of the effects of actions on migratory birds, emphasizing species of conservation concern. In March 2011, FERC and the USFWS finalized a Memorandum of Understanding to implement Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds. The Memorandum of Understanding "focuses on avoiding or minimizing adverse impacts on migratory birds and strengthening migratory bird conservation through enhanced collaboration." Conservation of migratory bird habitats, avoiding or minimizing take of migratory birds, and developing effective mitigation measures to restore or enhance habitats on lands affected by energy-related projects are several obligatory elements in the Memorandum of Understanding with emphasis on, but not exclusive to, the Birds of Conservation Concern ("BCC"; USFWS, 2021).

There are a number of special designations regarding migratory birds, as established by the USFWS, including BCC, bird conservation regions ("BCR"), and IBAs.

3.5.3.1 Birds of Conservation Concern

The Fish and Wildlife Conservation Act, as amended in 1988, requires USFWS to identify BCC, which include species, subspecies, and populations of all migratory nongame birds that could become candidates for listing under the ESA if additional conservation actions are not taken. The BCC are a subset of a larger list known as the Birds of Management Concern. The Birds of Management Concern is a subset of all species protected by the MBTA and includes those which pose special management challenges due to a variety of factors (e.g., too few, too many, conflicts with human interests, or societal demands; USFWS, 2008). The USFWS updated the BCC list in 2021. All major bird groups are represented in the BCC list; however, shorebirds, seabirds, and some landbirds have higher representation (USFWS, 2021a).

The USFWS updated BCC list indicates that there are 40 species of conservation concern that can be found in Puerto Rico. Of these 40 species, 29 are BCC only, 10 are BCC and are

also listed under the ESA, and two are BCC that are considered extinct (USFWS, 2021a). These species are identified in table 3-5 and their statuses (e.g., ESA, or considered extinct) are annotated.

Table 3-5: Migratory Birds that May Occur in the Affected Area.

Common Name	*Scientific Name*	Seasonal Occurrence in the Affected Area
American Coot (Caribbean)	*Fulica americana* (Caribbean)	Breeding
American Oystercatcher	*Haematopus palliatus*	Breeding
Antillean Cave-Rail [b]	*Nesotrochis debooyi*	[extinct]
Antillean Mango (Puerto Rican)	*Anthracothorax dominicus aurulentus*	Breeding
Audubon's Shearwater	*Puffinus lherminieri*	Breeding
Black Rail [a]	*Laterallus jamaicensis jamaicensis/coturniculus*	Year-round
Black Swift	*Cypseloides niger*	Breeding
Bridled Quail-Dove	*Geotrygon mystacea*	Breeding
Broad-winged Hawk (Puerto Rican) [a]	*Buteo platypterus brunnescens*	Year-round
Brown Pelican (Caribbean)	*Pelecanus occidentalis*	Breeding
Elfin-woods Warbler [a]	*Setophaga angelae*	Year-round
Least Tern (Atlantic/Interior)	*Sternula antillarum antillarum/athalassos*	Breeding
Lesser Yellowlegs	*Tringa flavipes*	Non-breeding
Limpkin (Puerto Rican/Hispaniolan)	*Aramus guarauna elucus*	Breeding
Magnificent Frigatebird	*Fregata magnificens*	Breeding
Masked Booby (Atlantic)	*Sula dactylatra*	Breeding
Masked Duck	*Nomonyx dominicus*	Breeding
Plain Pigeon (Puerto Rican) [a]	*Patagioenas inornata wetmorei*	Year-round
Prairie Warbler	*Setophaga discolor*	Non-breeding
Puerto Rican Nightjar [a]	*Antrostomus noctitherus*	Year-round
Puerto Rican Oriole	*Icterus portoricensis*	Breeding
Puerto Rican Parakeet [b]	*Psittacara maugei*	[extinct]
Puerto Rican Parrot [a]	*Amazona vittata*	Year-round
Puerto Rican Vireo	*Vireo latimeri*	Breeding
Red-billed Tropicbird (Caribbean)	*Phaethon aethereus mesonauta* (Caribbean)	Breeding
Red-footed Booby (Atlantic)	*Sula sula*	Breeding
Roseate Tern [a]	*Sterna dougallii*	Breeding
Ruddy Duck (West Indies)	*Oxyura jamaicensis* (West Indies)	Breeding
Semipalmated Sandpiper (Eastern/Central)	*Calidris pusilla* (Eastern/Central)	Non-breeding
Sharp-shinned Hawk (Puerto Rican) [a]	*Accipiter striatus venator*	Year-round
Snowy Plover (Caribbean)	*Charadrius nivosus tenuirostris*	Breeding
West Indian Whistling-Duck	*Dendrocygna arborea*	Breeding
White-cheeked Pintail (West Indies)	*Anas bahamensis*	Breeding
White-crowned Pigeon	*Patagioenas leucocephala*	Breeding
White-necked Crow [a]	*Corvus leucognaphalus*	Year-round
White-tailed Tropicbird (Atlantic)	*Phaethon lepturus catesbyi*	Breeding
Willet	*Tringa semipalmata*	Non-breeding
Wilson's Plover	*Charadrius wilsonia*	Breeding
Yellow-breasted Crake (Henderson's)	*Hapalocrex flaviventer hendersoni*	Breeding
Yellow-shouldered blackbird [a]	*Agelaius xanthomus*	Year-round

Source: USFWS, 2021a

[a] Species is listed under the ESA
[b] Species is considered extinct

The USFWS has established four administrative flyways in North America in order to facilitate the management of migratory birds and their habitats (USFWS, 2021b). Each of the four flyways constitutes a major bird migration corridor used for fall and spring migrations. The affected area is located within the Atlantic flyway. The Atlantic flyway extends from eastern Canada, down the eastern seaboard of the United States, to Puerto Rico (USFWS, 2021b). Priority birds that migrate through the Atlantic flyway include the saltmarsh sparrow (*Ammospiza caudacuta*), black-throated blue warbler (*Setophaga caerulescens*), ruddy turnstone (*Arenaria interpres*), and prothonotary warbler (*Protonotaria citrea*) (National Audubon Society, 2021). In addition, the DRNA noted that the peregrine falcon (*Falco peregrinus*) is reported as occurring in the affected area (DRNA, 2021). Peregrine falcon overwinters in Puerto Rico (The Cornell Lab, 2019). More than half of the 354 recorded bird species on Puerto Rico and the United States Virgin Islands occur as wintering neotropical migrants (Anadón-Irizarry et al., n.d.).

3.5.3.2 Important Bird Areas

IBAs are distinct areas that provide essential habitat for one or more species of birds in breeding, wintering, or migration (National Audubon Society, n.d.). IBAs do not hold legal or regulatory status. In Puerto Rico, there are 20 IBAS, with 52 key associated species. Of these species, six are globally threatened, 23 are restricted range species, and 28 are colonial waterbirds or seabirds (Nytch et al., 2015). The closest IBA to the MFH Facility is Ciénaga Las Cucharillas, which is about 1.85 miles northwest of the MFH Facility and is part of the San Juan Bay Estuary system. More than 70 species of birds have been identified in the IBA, including the critically endangered West Indian whistling-duck (BirdLife International, 2021). The main threat to this IBA is the loss and degradation of habitat, development, invasive species, pollution, and human disturbances (Key Biodiversity Areas Partnership, 2020). The Ciénaga Las Cucharillas IBA is not within the MFH Facility or FSU footprint and will not be crossed by shuttle vessels during operations.

3.5.3.3 Bird Conservation Regions

BCRs are ecologically distinct regions in North America with similar bird communities, habitats, and resource management issues (NABCI, 2021). BCRs provide habitat to year-round avian residents as well as stopover habitat for migrants. The affected area is located within the Puerto Rico and United States Virgin Islands Region 69 (BCR 69; MBJV, 2021).

BCR 69 includes the entire island of Puerto Rico and the United States Virgin Islands. Habitat within the BCR on Puerto Rico includes forest, wetlands, grasslands, woodland and shrubland, natural barrens, urban, and open water (Nytch et al., 2015). Besides open water, developed land and artificial barrens, and urban forest are the dominant habitat cover types near San Juan Bay (Nytch et al., 2015). There are 284 species known to occur in BCR 69. Important species in the BCR include the Puerto Rican parrot, West Indian whistling-duck, elfin-woods warbler, yellow-breasted crake, and red-billed and white-tailed tropicbirds (MBJV, 2021).

3.5.3.4 Operational Impacts

As discussed in section 3.3.2, operational impacts on migratory birds could include noise, light, physical disturbance, and incidental releases of hazardous substances from operation of the MFH Facility, FSU, and transiting shuttle vessels. Intermittent impacts would be minor based on the limited available artificial terrestrial habitat at the MFH Facility, the ability of seabirds and

shorebirds to move out of the way of transiting shuttle vessels, and measures to reduce potential impacts from hazardous substances, as described in section 3.2.2.

3.5.4 Bald and Golden Eagle Protection Act

The bald eagle was officially removed from the federal threatened and endangered species list in 2007 but is still protected under the federal BGEPA and the MBTA. The BGEPA protects the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) by prohibiting anyone—without a permit issued by the Secretary of the Interior—from "taking" a bald or golden eagle, including their parts, nests, or eggs (16 USC § 668−668c). Bald eagles typically nest in large trees near coastlines, rivers, or lakes that support adequate foraging in winter and early spring. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (particularly organochlorine pesticides and lead). Furthermore, bald eagles are vulnerable to disturbance during courtship, nest building, egg laying, incubation, and brooding. Disturbance during these periods may lead to nest abandonment, cracked and chilled eggs, and exposure of small young to the elements.

Puerto Rico is outside the bald and golden eagle's North American range (Cornell Lab of Ornithology, 2021a, 2021b). NFEnergía consulted with the USFWS Caribbean Ecological Services Field Office on July 1, which confirmed that neither bald nor golden eagles inhabit the island. Subsequently, there will be no impacts on bald or golden eagles.

3.5.5 Marine Mammal Protection Act

All marine mammals are protected under the Marine Mammal Protection Act and some receive additional protection under the ESA if they are federally listed species. Although four federally listed whale species (blue whale, fin whale, sei whale, and sperm whale) occur in the coastal waters of Puerto Rico, operation of the MFH Facility is not expected to adversely impact whale species, as discussed above (see section 3.5.1.2).

In addition to the whale species discussed above, the bottlenose dolphin (*Tursiops* spp.) has been described as the most frequently sighted cetacean in the inshore waters of Puerto Rico (USACE, 2018). Some cetacean species occur in the activity area year-round (e.g., bottlenose dolphins and beaked whales), while others (e.g., the humpback whale [*Megaptera novaeangliae*]) occur seasonally as they migrate through the area (USACE, 2018).

Operation of the MFH Facility will include shuttle vessels traveling to the Port of San Juan through the Atlantic Ocean and San Juan Bay. Shuttle vessel traffic is projected to involve up to an average of 10 ship visits per month, which has been approved by the USCG as part of its 2018 Waterway Suitability Assessment process (USCG, 2018). As discussed with respect to whales, fish, and sea turtles, NFEnergía will provide shuttle vessel captains with the NOAA Fisheries *Vessel Strike Avoidance Measures* (NOAA Fisheries, 2021i). Shuttle vessel captions will implement the measures identified in the document, thereby minimizing potential impacts on marine species.

3.6 Agency Consultation

On June 30, 2021, a written request was sent to the USFWS Caribbean Ecological Services Field Office for technical assistance, verification of the list of federally listed or proposed species and designated or proposed critical habitat under USFWS jurisdiction that was generated

in the Information for Planning and Consultation system for the action area. The letter also requested guidance regarding the BGEPA and MBTA. On August 9, 2021, NFEnergía sent an informal consultation letter to the USFWS providing a preliminary analysis and impact determinations with proposed mitigation measures. Coordination with the USFWS in compliance with these laws is ongoing and updates will be provided to FERC.

On June 11, 2021, NFEnergía contacted NOAA Fisheries for technical assistance and verification of the list of federally listed or proposed species and designated or proposed critical habitat in the action area under NOAA Fisheries jurisdiction. NFEnergía requested to initiate informal consultation with the agency on August 2, 2021. On August 3, 2021, NOAA Fisheries provided information listing potential impacts to be addressed. NFEnergía submitted an informal consultation letter providing a preliminary analysis and impact determinations with proposed mitigation measures to NOAA Fisheries on September 9, 2021. Coordination with NOAA Fisheries regarding the ESA is ongoing and updates will be provided to FERC.

On September 1, 2021, NFEnergía submitted a written request to NOAA Fisheries for a review of the EFHA for the MFH Facility in compliance with the Magnuson-Stevens Act. Coordination with NOAA Fisheries regarding EFH is ongoing and updates will be provided to FERC.

On July 1, 2021, NFEnergía requested information for occurrences of state-listed species under Regulation 6766 from the Puerto Rico DRNA. On July 26, 2021, the DRNA provided information on state-listed species that are known to occur in the affected area. On July 26, 2021, NFEnergía requested specific location information for species occurrences. No additional information has been received as of the date of this document.

A list and copies of all agency correspondence are provided in appendix 3A.

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APPENDIX 3A AGENCY CORRESPONDENCE

NFEnergía LLC
San Juan Micro-Fuel Handling Facility
Log of Environmental Agency Correspondence

Table 1

Log of Agency Consultation

Document Type	Description	Date	Contact name	Additional Notes
U.S. Fish and Wildlife Service – Caribbean Field Office				
Email	Email from FWS (Felix Lopez) triggered by IPaC Official Species List. FWS requests meeting prior to consultation initiation.	06/22/2021	Felix Lopez	Initial contact from the FWS in response to the IPaC query.
Email/letter	Project introduction letter and request for meeting was emailed to FWS.	06/30/2021	Felix Lopez	Email contains brief discussion between ERM and FWS; coordination for meeting set up.
Phone Log	Notes from Teams meeting with FWS, ERM, and VE regarding T&E species to be considered for Facility operation.	07/01/2021	Felix Lopez	Outcome of meeting: only manatee needed to be considered for consultation; recommended conservation methods (available on IPaC) can make NLAA determination for manatee. No eagles in PR.
Email	Email from ERM to FWS requesting manatee conservation methods; and reply email from FWS with conservation methods attached.	07/27/2021	Felix Lopez	Manatee conservation methods are not yet available on IPaC as described in 7/1 meeting. Felix Lopez (FWS) forwarded measures to ERM.
Email	Email from ERM to FWS requesting printable manatee signs	08/04/2021	Felix Lopez and Jan Zegarra	FWS provided printable sign via emailed response on 8/4/21.
Email/letter	Informal consultation letter and request for concurrence or comment to FWS.	08/09/2021	Felix Lopez	Provides impact determinations and request for comment or concurrence.
NOAA Fisheries – Essential Fish Habitat Consultation				
Email	Email from NOAA confirming EFH contact	07/02/2021	Pace Wilber	Email chain confirming Pace Wilbur of NOAA to be appropriate contact for EFHA-related correspondence and consultation.
Email	Email from FERC to NOAA appointing NFE as non-federal designee	07/16/2021	Kimberly Poli	FERC delegation email
Email/letter	Draft EFHA and request for concurrence or comment to NOAA Fisheries	09/01/2021	Pace Wilber	Provides a description of EFH and assessment of potential impacts.
Email	Email from NOAA Fisheries acknowledging receipt of the EFHA	09/01/2021	Pace Wilber	EFHA acknowledgement
NOAA Fisheries – Endangered Species Act Section 7 Consultation				
Email	Emailed project introduction to NOAA (Kay Davy), request for species list clarification; response from NOAA	6/11/2021	Kay Davy	Email contains project introduction and request to meet with NOAA to discuss species list for consultation. NOAA responded that a meeting can occur (note, in subsequent emails this is retracted)
Email	Emailed FERC show cause order to NOAA per K. Davy's request	6/15/2021	Kay Davy	Email contains the show cause order from FERC, and explanation of what it means for the Facility.
Email	Email response to NOAA questions.	6/17/2021	Kay Davy	NOAA had questions about previous ESA consultation for the Facility; the vessel route; and FERC timeline for the Facility.
Email	Email between NOAA and ERM regarding FERC delegation for consultation	7/14/2021	Kay Davy	NOAA requesting confirmation from FERC of non-federal delegation; contact person at FERC.

NFEnergía LLC
San Juan Micro-Fuel Handling Facility
Log of Environmental Agency Correspondence

Table 1

Log of Agency Consultation

Document Type	Description	Date	Contact name	Additional Notes
Email	Email exchange between FERC and NOAA designating NFE	07/16/2021	Kimberly Poli; Kay Davy	FERC delegation email
Email	Email between NOAA and ERM confirming receipt of FERC delegation	07/27/2021	Kay Davy	Confirmation from NOAA that FERC delegation was received.
Email	Email to NOAA requesting consultation	08/02/2021	NMFS SE office and Kay Davy	Email requesting initiation of informal consultation with NOAA under Section 7 of ESA.
Email	Email from NOAA listing impacts to be addressed	08/03/2021	Kay Davy	Email with list of impacts to be considered for operation of facility.
Email/letter	Impact assessment and request for concurrence or comment to NOAA Fisheries	09/09/2021	Kay Davy	Provides an assessment of potential impacts and determinations of effect for listed species.
Email	Email from NOAA Fisheries acknowledging receipt of the impact assessment	09/10/2021	Kay Davy	Impact assessment receipt acknowledgement
Puerto Rico Department of Natural and Environmental Resources				
Email	Email to DNER requesting information on known occurrences of listed species	06/11/2021	H. Cruz	Initial request for listed species occurrence information
Email	Email from DNER stating how to request NHI data	06/15/2021	H. Cruz	Response to ERM request on how to obtain natural heritage data from DNER
Email/letter	Project introduction letter and request for species list emailed to DNER (Nilda Jimenez)	07/01/2021	Nilda Jimenez	Provided a description of the MFH Facility and requested a list of state-listed species that could occur in the vicinity, along with location information
Email	Email response from DNER to request for information	07/26/2021	Nilda Jimenez	DNER provided species list to consider for impacts/consultation for the project (brown pelican, manatee, green turtle, peregrine falcon)
Email	Email request for specific location information of species occurrences	07/26/2021	Nilda Jimenez	Follow-up email for detailed location information on species in the vicinity.

From: Lopez, Felix <felix_lopez@fws.gov>
Sent: Thursday, June 17, 2021 3:15 PM
To: Julia Joy <Julia.Joy@erm.com>
Subject: NFEnergia

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

We should discuss this project with your clients before it moves along too much especially what surveys will be needed, impacts to marine ecosystems etc.

Felix Lopez
US Fish and Wildlife Service
Caribbean Ecological Services FO
787 510 5208 Cell

No one knows what we do, but we are the only ones that can do it and we do it well.....

From: Julia Joy <Julia.Joy@erm.com>
Sent: Tuesday, June 22, 2021 10:25 AM
To: Lopez, Felix <felix_lopez@fws.gov>
Cc: Kara Hempy-Mayer <kara.hempymayer@erm.com>
Subject: [EXTERNAL] RE: NFEnergia

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

Good morning, Felix,

Thank you for reaching out. We are currently preparing project information for your review. I will send this to you via email when it is ready, at which time I'll also schedule a Microsoft Teams meeting with you, our client, and ERM team members. Which days and times would work best for you over the next two weeks for the meeting? Also, are you able to connect via Microsoft Teams? If not, please let me know and I will find an alternative conference platform for us to use.

Kind Regards,
Julia

Julia Joy
Senior Consultant
Pronouns: she/her/hers

ERM
222 South 9th Street | Suite 2900 | Minneapolis, MN | 55402
T +1 612.347.7106 | **M** +1 612.655.3434
E Julia.Joy@erm.com | **W** www.erm.com

Tue 6/22/2021 9:44 AM

Lopez, Felix <felix_lopez@fws.gov>

Re: [EXTERNAL] RE: NFEnergia

To Julia Joy

Cc Kara Hempy-Mayer

You replied to this message on 6/30/2021 3:19 PM.
If there are problems with how this message is displayed, click here to view it in a web browser.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Julia, next week from 2:30 EST on is good for me, which works also with people in different time zones. MS Teams is our main platform for virtual meetings, so it should work fine.

Felix Lopez
US Fish and Wildlife Service
Caribbean Ecological Services FO
787 510 5208 Cell

Wed 6/30/2021 3:20 PM

Julia Joy

RE: [EXTERNAL] RE: NFEnergia

To Lopez, Felix

Cc Kara Hempy-Mayer; Maggie Suter

You replied to this message on 7/27/2021 1:37 PM.

NFE FWS Intro Letter FInal 30June2021.pdf
.pdf File

Hi Felix,

Attached please find a Project Introduction Letter for your review. I will send a MS Teams invite for tomorrow afternoon at 2:30 EST. Please feel free to forward to the invite to anyone else at the FWS you'd like to attend the call with you. If this date or time does not work out, let me know and I can reschedule for another day.

I look forward to speaking with you.
Cheers,
Julia

Julia Joy
Senior Consultant
Pronouns: she/her/hers

NFEnergía
puerto rico

June 30, 2021

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

Re: NFEnergía LLC San Juan Micro-Fuel Handling Facility

Dear Mr. Lopez:

NFEnergía LLC ("NFE") owns and operates a liquefied natural gas ("LNG") import and regasification facility ("Micro-Fuel Handling Facility" or "MFH Facility") in the Port of San Juan, Puerto Rico. The MFH Facility imports and distributes natural gas to providers in Puerto Rico. A portion of the LNG is distributed via ship-to-truck trans-loading operations, while the remaining LNG is regasified and provided to the adjacent Puerto Rico Electric Power Authority's ("PREPA") San Juan Power Plant through a direct natural gas vapor connection. The LNG is imported via LNG carriers ("shuttle vessels") traveling through the Atlantic Ocean and San Juan Bay. At the Port of San Juan, the LNG is transferred to a floating storage unit ("FSU"), an LNG storage vessel semi-permanently moored alongside the MFH Facility. The FSU and MFH Facility locations, along with the shuttle vessel routes, are shown on the attached figures.

The MFH Facility is located in an industrial area. It is paved and includes a control building, a cryogenic LNG transfer header, LNG transfer equipment, a truck loading facility, vaporization equipment, and two 463 horsepower emergency diesel generators. The site is enclosed by a fence. NFE proposes to continue year-round operations of the MFH Facility. The in-water activities during operations are vessel traffic in San Juan Harbor and the Atlantic Ocean, as well as the loading and transfer of LNG at the FSU and MFH Facility. Shuttle vessels moor directly to the FSU, which is moored to Wharf B; there is no anchoring at the MFH Facility.

NFE uses the INEOS Independence as the FSU, which has a cargo capacity of 27,500 cubic meters. Two LNG carriers serve as the shuttle vessels to the FSU. The Coral Encanto serves as the main vessel, and has a cargo capacity of 30,000 cubic meters. The Coral Anthelia may also be used as a shuttle vessel, and has a cargo capacity of 6,500 cubic meters.

NFE began constructing the MFH Facility in 2018 and commenced commercial operations in 2020. On March 19, 2021, the Federal Energy Regulatory Commission ("FERC" or "Commission") issued an Order on Show Cause determining that operation of the MFH Facility is subject to the Commission's jurisdiction under Section 3 of the Natural Gas Act, and directed NFE to submit an application for authorization to operate the MFH Facility.

In accordance with FERC application requirements (18 Code of Federal Regulations § 380.13(b)), NFE acts as FERC's designated non-federal representative for purposes of informal consultation under Section 7 of the Endangered Species Act. Environmental Resources Management ("ERM") is assisting NFE with various environmental aspects of this effort, including

agency consultations and preparation of the FERC application. We are aware that the U.S. Army Corps of Engineers ("USACE") completed consultation with your office on September 25, 2018 for the reconstruction of Wharf B as part of the development of the MFH Facility. As part of the FERC application process, NFE would like to initiate coordination and request technical assistance from your office in its analysis of potential impacts on federally listed species that could occur should the Commission approve NFE's forthcoming application to continue to operate the MFH Facility. The purpose of this letter is to request verification of the list of species that may be affected by continued MFH Facility operations, as described below, and any information you may have on known or potential occurrences of these species in the identified area. Concurrent with this consultation with the U.S. Fish and Wildlife Service ("FWS"), NFE is also consulting with the National Oceanic and Atmospheric Administration Fisheries ("NOAA Fisheries") for species under its jurisdiction.

Federally Listed Species Under FWS Jurisdiction

ERM received an Official Species List (Attachment A) from the USFWS Information for Planning and Consultation System ("IPaC") to identify federally listed species with the potential to occur in and near areas affected by MFH Facility operations. The IPaC list is based on an area that includes the MFH Facility (onshore), the FSU, and the shuttle vessel routes in the San Juan Bay and Atlantic Ocean out to the Exclusive Economic Zone (see the attached figures). The official IPaC species list identified one mammal, one plant, and three reptiles, as listed below:

- hawksbill sea turtle (*Eretmochelys imbricata*) – endangered
- leatherback sea turtle (*Dermochelys coriacea*) – endangered
- Palo de Rosa (*Ottoschulzia rhodoxylon*) – endangered
- Puerto Rican boa (*Epicrates inornatus*) – endangered
- West Indian manatee (*Trichechus manatus*) – threatened

As described above, the MFH Facility is paved and offers no habitat for the Palo de Rosa or Puerto Rican boa. Further, the terrestrial portion of the MFH Facility was previously evaluated in 2018 prior to the reconstruction of Wharf B; no impacts were identified for the Palo del Rosa or Puerto Rican boa. Due to the lack of habitat, there will be no effect on the Palo de Rosa plant or the Puerto Rican boa; subsequently, the two terrestrial species are not further included in this evaluation.

Sea Turtles

The FWS shares Endangered Species Act authority with NOAA Fisheries for sea turtles. Pursuant to a joint Memorandum of Understanding,[1] the FWS has jurisdiction over sea turtles on land (nesting habitat) and NOAA Fisheries has jurisdiction over sea turtles in marine habitats. No impacts on sea turtles were identified in the USACE FWS concurrence letter on September 25, 2018 for the reconstruction of Wharf B. Details for the two species are summarized below.

[1] U.S. Fish and Wildlife Service and National Marine Fisheries Service. 2015. Memorandum of Understanding Defining the Roles of the U.S. Fish and Wildlife Service and the National Marine Fisheries Service in Joint Administration of the Endangered Species Act of 1973 as to Sea Turtles. Available online at: https://media.fisheries.noaa.gov/dam-migration/fws-nmfs_mou_2015.pdf. Accessed June 2021.

Hawksbill turtle

Hawksbill sea turtles are widely distributed throughout the Caribbean Sea and western Atlantic Ocean. They occur in shallow coastal areas, oceanic islands, rocky areas, and coral reefs. They nest in low densities on scattered undisturbed deep-sand beaches in the tropics. The turtle comes onshore to nest and lay eggs, and is known to utilize the beaches of several counties in Puerto Rico. Critical habitat has been designated for the hawksbill sea turtle around Mona Island, which is about 44 miles southwest of the coast of Puerto Rico. This designated critical habitat ("DCH") is under NOAA Fisheries jurisdiction.

The MFH Facility is paved and does not provide nesting habitat for sea turtles. The closest known county to the MFH Facility with hawksbill sea turtle nesting beaches is Dorado, which is about 10 miles west of the Facility.

Leatherback turtle

Leatherback sea turtles are commonly regarded as pelagic (open ocean) animals, but they also forage in coastal waters during breeding. The leatherback is the most migratory and wide ranging of sea turtle species. It prefers open ocean habitat outside of breeding season. Nesting sites within and near the United States occur in southeast Florida, Puerto Rico, and the U.S. Virgin Islands. Critical habitat has been designated for the leatherback sea turtle around the southwestern end of the island of St. Croix, which is about 65 miles southeast of the coast of Puerto Rico. This DCH is under NOAA Fisheries jurisdiction.

The MFH Facility is paved and does not provide nesting habitat for sea turtles.

West Indian Manatee

In Puerto Rico, the West Indian manatee inhabits coastal shallow marine areas, but is occasionally encountered in freshwater (e.g., canals, rivers, and estuaries). The manatee is common along the east and south coast of Puerto Rico, and is less abundant along the north coast. Critical habitat has been designated for the West Indian manatee along the Florida coast. There is no DCH for the manatee in the waters of Puerto Rico.

Per the 2018 consultation between your office and the USACE, there is habitat for the manatee in the vicinity of the MFH Facility operations in San Juan Bay.

Request for Review and Comment

NFE requests your review and comment on the species listed above and their associated habitats, as well as federally proposed species that are not yet included in IPaC, under FWS jurisdiction that may occur in the MFH Facility operations area. In particular, information regarding potential species presence and the risk of potential impacts from operation of the MFH Facility would be helpful.

According to the Cornell Lab of Ornithology's eBird website, Puerto Rico is outside the bald and golden eagle's North American range. NFE requests confirmation regarding whether bald and golden eagles occur in Puerto Rico to help NFE ensure compliance with the Bald and Golden Eagle Protection Act (16 U.S. Code 668–668c). NFE is familiar with the requirements under the Migratory Bird Treaty Act (MBTA) (16 U.S. Code 703–711) and intends to comply with

the MBTA as well as the Memorandum of Understanding between the FERC and FWS regarding federal agency responsibilities to protect migratory birds under Executive Order 13186.

We would appreciate your comments and look forward to working with you on the review of the MFH Facility operations. If you have any questions, please contact me at 516-268-7413 or bcmelmurray@newfortressenergy.com, or contact Kara Hempy-Mayer, of ERM, at 612-219-9523 or kara.hempymayer@erm.com.

Sincerely,

Brannen McElmurray
Chief Development Officer
New Fortress Energy

cc: Kara Hempy-Mayer, ERM
Maggie Suter, ERM

Enclosures: Attachment A: Overview Maps
Attachment B: FWS IPaC Official Species List

Attachment A
Overview Maps

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 | Project_Overview_Small_Scale
Map Author: CAL.WILSON
Revised: 06/22/2021 | Scale: 1:1,267,200 when printed at 8.5"x11"
COORDINATE SYSTEM: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 Feet

MFH Facility

Shuttle Vessel Route

Exclusive Economic Zone Boundary

Data Sources
Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 1-A
Overview Map
San Juan Micro-Fuel Handling Facility
NFEnergía, LLC San Juan, Puerto Rico

NFEnergía puerto rico
ERM

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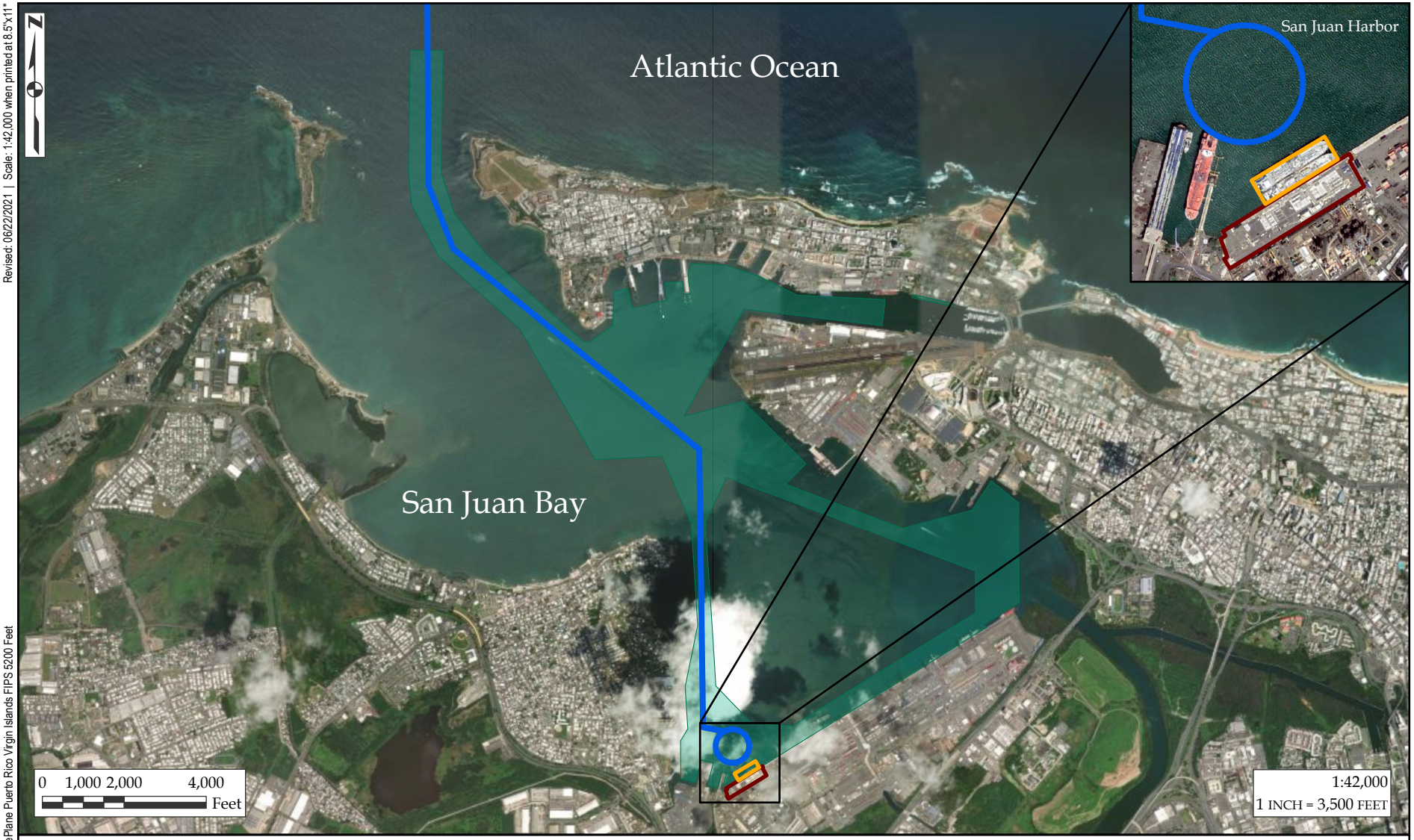
This information is for environmental review purposes only.

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 | Project_Overview_Large_Scale

Map Author: CAL.WILSON

Revised: 06/22/2021 | Scale: 1:42,000 when printed at 8.5"x11"

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



MFH Facility

Storage Unit Shuttle

Vessel Route

Army COE Maintained Coastal Channels & Waterways

Data Sources

Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 1-B
Overview Map

San Juan Micro-Fuel Handling Facility
NFEnergía, LLCSan Juan, Puerto Rico

NFEnergía puerto rico

ERM

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This information is for environmental review purposes only.

Attachment B
FWS IPaC Official Species List

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) 851-7297 Fax: (787) 851-7440
http://www.fws.gov/caribbean/es

In Reply Refer To:
Consultation Code: 04EC1000-2021-SLI-0980
Event Code: 04EC1000-2021-E-01598
Project Name: NFEnergia

June 17, 2021

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 consultation process with the U.S. Fish and Wildlife Service (Service) 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.

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 (BA) to assist in its determination of the project's effects on species and their habitat.

However, a BA 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 BA 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 BA are described at 50 CFR 402.12.

If a Federal agency determines, based on its BA 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 and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in

the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

For more information:

U.S. Fish and Wildlife Service

Caribbean Ecological Services Field Office

Road 301, Km. 5.1 / Bo. Corozo

Boquerón, PR 00622

Telephone: (787) 851-7297

Fax: (787) 851-7440

Email: caribbean_es@fws.gov

http://www.fws.gov/caribbean/es

Send all documents to:

U.S. Fish and Wildlife Service

P.O. Box 491

Boquerón, Puerto Rico 00622

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- 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".

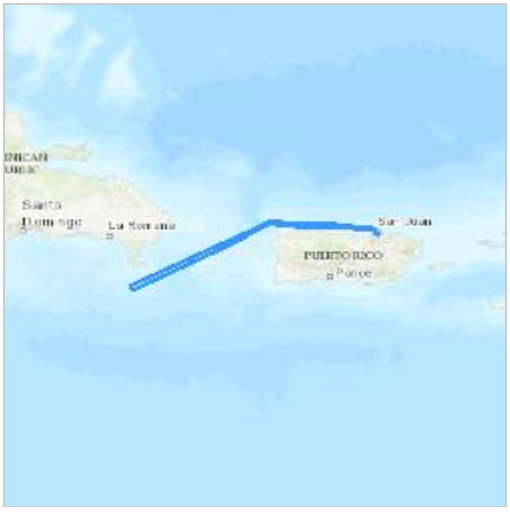
This species list is provided by:

Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
(787) 851-7297

Project Summary

Consultation Code: 04EC1000-2021-SLI-0980
Event Code: 04EC1000-2021-E-01598
Project Name: NFEnergia
Project Type: OIL OR GAS
Project Description: Operation of the NFEnergia LNG import facility in the Port of San Juan.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@18.22861795,-67.98869439266036,14z



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 Fisheries[1], 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 *Trichechus manatus*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.
Species profile: https://ecos.fws.gov/ecp/species/4469

Reptiles

NAME	STATUS
Hawksbill Sea Turtle *Eretmochelys imbricata*	Endangered

There is **final** critical habitat for this species. Your location overlaps the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/3656
General project design guidelines:
https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc4769.pdf

Leatherback Sea Turtle *Dermochelys coriacea*	Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/1493
General project design guidelines:
https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc4769.pdf

Puerto Rican Boa *Epicrates inornatus*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/6628
General project design guidelines:
https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6757.pdf

Flowering Plants

NAME	STATUS
Palo De Rosa *Ottoschulzia rhodoxylon*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/5741

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Hawksbill Sea Turtle *Eretmochelys imbricata*	Final

https://ecos.fws.gov/ecp/species/3656#crithab

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 Act[1] and the Bald and Golden Eagle Protection Act[2].

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

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
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 migratory birds potentially occurring 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 AKN Phenology 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 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, migrating or present year-round in my project 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 refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. 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.

Marine Mammals

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

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

The Marine Mammal Protection Act prohibits the take 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.

ESTUARINE AND MARINE WETLAND

- E2EM1N
- E2FO3P
- E2RS1P
- E2SS3P
- E2US2P
- M2RS1P

ESTUARINE AND MARINE DEEPWATER

- M1UBL
- E1UBL

FRESHWATER EMERGENT WETLAND

- PEM1C

RIVERINE

- R5UBH

ERM

PHONE LOG

NFEnergía LLC San Juan Micro-Fuel Handling Facility

DATE:	TIME OF CONVERSATION:
7/1/2021	1:30 pm Central

RE:
NFEnergía LLC San Juan Micro-Fuel Handling Facility Section 7 Informal Consultation

Attendees: Felix Lopez, FWS
Casey Hopkins, VE
Julia Joy, ERM
Kara Hempy-Meyer, ERM
Maggie Suter, ERM

Ms. Joy provided an overview of the NFEnergía LLC San Juan Micro-Fuel Handling Facility (MFH Facility), and the results of the U.S. Fish and Wildlife Service (FWS) Information for Planning and Consultation (IPaC) system Official Species List. Ms. Joy asked Mr. Lopez to confirm which species on the Official Species List should be considered for consultation for operation of the Facility. Of the five species (West Indian (Antillean) manatee, Palo de Rosa, hawksbill sea turtle, leatherback sea turtle, and Puerto Rican boa), Mr. Lopez stated that only the West Indian manatee needed to be considered for consultation since there is an existing population in San Juan Bay. He noted that manatee injuries and mortalities have occurred from interactions with vessels, including from vessel strikes involving small, fast moving vessels and from manatees getting caught in between a dock and ship while docking. The remaining species were either not marine species and therefore would not be encountered during operation of the MFH Facility, or were not under FWS jurisdiction within the operational footprint of the MFH Facility (e.g., sea turtles on land are under FWS jurisdiction, and there is no appropriate terrestrial nesting habitat within the operational footprint).

Mr. Lopez stated that with the implementation of avoidance measures, such as manatee awareness signs posted on the Floating Storage Unit (FSU) and MFH Facility, and communication between the FSU and incoming shuttle vessels if manatees are in the vicinity, the Facility could arrive at a *may affect, but not likely to adversely affect* determination for the manatee.

Mr. Lopez confirmed that neither the bald eagle nor the golden eagle inhabits the island of Puerto Rico, and therefore the species did not need to be considered for the consultation.

Finally, Ms. Joy asked about the preferred method of delivery of the consultation package (e.g., hardcopy mail or email). Mr. Lopez stated that the FWS office in Puerto Rico was currently closed, and that emailed correspondence was the preferred method of contact.

Tue 7/27/2021 1:43 PM

Lopez, Felix <felix_lopez@fws.gov>

Re: [EXTERNAL] RE: NFEnergia

To Julia Joy

You forwarded this message on 7/27/2021 2:18 PM.
If there are problems with how this message is displayed, click here to view it in a web browser.

2020 FWS Antillean Manatee Conservation Measures.pdf
.pdf File

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Sorry I thought they were up online already. Enclosed are our standard manatee conservation guidelines with example of signs. The inclusion of these conservation measures should be documented with any federal permits that are needed.

Felix Lopez
US Fish and Wildlife Service
Caribbean Ecological Services FO
787 510 5208 Cell

From: Julia Joy <Julia.Joy@erm.com>
Sent: Tuesday, July 27, 2021 2:37 PM
To: Lopez, Felix <felix_lopez@fws.gov>
Cc: Kara Hempy-Mayer <kara.hempymayer@erm.com>
Subject: RE: [EXTERNAL] RE: NFEnergia

Hi Felix,

On our July 1 Teams call regarding the NFEnergia LLC San Juan Micro-Fuel Handling Facility, you recommended manatee awareness signs that could be printed and used for Facility-related vessels, as well as information from IPaC that might be useful. Are you able to please provide the signs you would like the vessels to display? Also, I could not find conservation guidelines in IPaC for the manatee. I was only able to locate info for sea turtles and the boa. Are you able to please send this to me, as well?

Thank you very much in advance!
Cheers,
Julia

From: Julia Joy <Julia.Joy@erm.com>
Sent: Wednesday, August 4, 2021 10:05 AM
To: Zegarra, Jan <jan_zegarra@fws.gov>
Cc: Lopez, Felix <felix_lopez@fws.gov>
Subject: [EXTERNAL] Manatee conservation sign request

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

Good morning,

Could you please send me a ready to print copy of the permanent (30"x24") manatee sign, found on page 4 of the attached document?

Alternatively, do you know if there are already printed signs available for purchase (in lieu of my client printing their own)?

Thank you!
Julia

Wed 8/4/2021 10:11 AM
Zegarra, Jan <jan_zegarra@fws.gov>
Re: [EXTERNAL] Manatee conservation sign request
To Julia Joy
Cc Lopez, Felix
If there are problems with how this message is displayed, click here to view it in a web browser.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thanks for your email Julia. See attached pdf of the sign. Unfortunately, I don't know of any already printed signs for purchase. You may explore the Florida Fish And Wildlife Conservation Commission (FWCC) website as an option, from which our sign and guidance is based on.

FWCC link: https://myfwc.com/wildlifehabitats/wildlife/manatee/education-for-marinas/

FWCC guidance document: https://myfwc.com/media/18621/manatee_educationalsign.pdf

Let me know if you need anything else.

><((((*>

Please note: I am working remotely at this time. If you need immediate assistance, please contact me on my mobile number.

Jan P. Zegarra
USFWS-Caribbean Ecological Services Field Office
PO Box 491
Boquerón, PR 00622
MOBILE: 787-397-7403
EMAIL: jan_zegarra@fws.gov
RESEARCH GATE: http://www.researchgate.net/profile/Jan_Zegarra

Julia Joy

From: Julia Joy
Sent: Monday, August 9, 2021 3:35 PM
To: Lopez, Felix
Cc: Maggie Suter; Kara Hempy-Mayer
Subject: NFEnergia LLC San Juan Micro-Fuel Handling Facility - Informal Section 7 Consultation
Attachments: NFE FWS consult Letter_9Aug2021.pdf

Dear Mr. Lopez,

In accordance with Federal Energy Regulatory Commission ("FERC") application requirements (18 Code of Federal Regulations § 380.13(b)), NFEnergia LLC ("NFE") acts as FERC's designated non-federal representative for purposes of informal consultation under Section 7 of the Endangered Species Act. Environmental Resources Management ("ERM") is assisting NFE with various environmental aspects of this effort, including agency consultations and preparation of the FERC application. On behalf of NFE, ERM is submitting the attached informal consultation letter with the determination that operation of the MFH Facility *may affect, but is not likely to adversely affect* the West Indian manatee. NFE respectfully requests your concurrence or comment otherwise on this determination of effect.

Should you have any questions, please don't hesitate to call or email.

Warm Regards,
Julia

Julia Joy
Senior Consultant
Pronouns: she/her/hers

ERM
222 South 9th Street | Suite 2900 | Minneapolis, MN | 55402
T +1 612.347.7106 | **M** +1 612.655.3434
E Julia.Joy@erm.com | **W** www.erm.com

August 9, 2021

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

Re: NFEnergía LLC San Juan Micro-Fuel Handling Facility

Dear Mr. Lopez:

As you are aware, NFEnergía LLC ("NFE") owns and operates a liquefied natural gas ("LNG") import and regasification facility (the San Juan Micro-Fuel Handling Facility or "MFH Facility") in the Port of San Juan, Puerto Rico. The MFH Facility imports and distributes natural gas to providers in Puerto Rico. A portion of the LNG is distributed via ship-to-truck trans-loading operations, while the remaining LNG is regasified and provided to the adjacent Puerto Rico Electric Power Authority's ("PREPA") San Juan Power Plant through a direct natural gas vapor connection. The LNG is imported via LNG carriers ("shuttle vessels") traveling through the Atlantic Ocean and San Juan Bay. At the Port of San Juan, the LNG is transferred to a floating storage unit ("FSU"), an LNG storage vessel semi-permanently moored alongside the MFH Facility. The FSU and MFH Facility locations, along with the shuttle vessel routes, are shown on the attached figures (Attachment A).

In accordance with FERC application requirements (18 Code of Federal Regulations § 380.13(b)), NFE acts as FERC's designated non-federal representative for purposes of informal consultation under Section 7 of the Endangered Species Act. Environmental Resources Management ("ERM") is assisting NFE with various environmental aspects of this effort, including agency consultations and preparation of the FERC application.

NFE is requesting U.S. Fish and Wildlife Service ("FWS") concurrence on the effects determinations for federally listed species discussed in this letter to ensure that NFE can provide FERC with the information necessary for an accurate and thorough assessment of federally listed species potentially affected by operation of the MFH Facility. Concurrent with this consultation with the FWS, NFE is also consulting with the National Oceanic and Atmospheric Administration Fisheries ("NOAA Fisheries") for species under its jurisdiction.

Federally Listed Species Under FWS Jurisdiction

ERM received an Official Species List (Attachment B) from the FWS Information for Planning and Consultation System ("IPaC") to identify federally listed species with the potential to occur in and near areas affected by MFH Facility operations. The IPaC list is based on an area that includes the MFH Facility (onshore), the FSU, and the shuttle vessel routes in the San Juan Bay and Atlantic Ocean out to the Exclusive Economic Zone (see figures in Attachment A). The

official IPaC species list identified one mammal, one plant, and three reptiles under FWS jurisdiction, as listed below:

- hawksbill sea turtle (*Eretmochelys imbricata*) (terrestrial habitat only) – endangered
- leatherback sea turtle (*Dermochelys coriacea*) (terrestrial habitat only) – endangered
- Palo de Rosa (*Ottoschulzia fhodoxylon*) – endangered
- Puerto Rican boa (*Epicrates inornatus*) – endangered
- West Indian manatee (*Trichechus manatus*) – threatened

Based on a July 1, 2021 meeting between the FWS, NFE, and ERM, only the endangered West Indian manatee could be in the vicinity of the Facility and have the potential to experience impacts as a result of Facility operation.[1] Potential impacts and mitigation for this species are discussed below.

West Indian Manatee

There are two subspecies of West Indian manatees: the Antillean manatee (*Trichechus manatus manatus*), and the Florida manatee (*Trichechus manatus latriostris*). In Puerto Rico, the Antillean subspecies ("manatee") typically inhabits coastal shallow marine areas, but is occasionally encountered in freshwater (e.g., canals, rivers, and estuaries). The manatee is common along the east and south coast of Puerto Rico and is less abundant along the north coast.[2] Per the July 1, 2021 meeting with your office, manatees are present within San Juan Bay and have been observed near the MFH Facility. Critical habitat has been designated for the West Indian manatee along the Florida coast. There is no designated critical habitat for the manatee in Puerto Rico.

Manatees could be encountered by shuttle vessels traveling through San Juan Bay and docking with the FSU. The risk of collision with shuttle vessels is reduced because the shuttle vessels will travel at slow speeds of about 6.5 knots (7.5 miles per hour) through San Juan Bay and use established, well-traveled shipping lanes that manatees are likely to avoid. As noted by the FWS,[1] most injuries to manatees in San Juan Bay have been from vessel strikes involving small, fast moving vessels and from manatees getting caught in between a dock and ship while the ship is docking. NFE will provide instruction to personnel at the FSU and MFH Facility to alert incoming shuttle vessels if manatees are observed in the area of operation in order to minimize the potential for ship strikes. To further minimize potential collisions between marine vessels and manatees, the *Vessel Strike Avoidance Measures*[3] developed by the National Oceanic and Atmospheric Administration Fisheries will be given to shuttle vessel captains to be implemented for manatees as well as other marine mammals. These measures include requirements for personnel awareness of protected marine species, speed reduction requirements for vessels near protected species, and general reporting requirements. Additionally, NFE will implement the

1 U.S. Fish and Wildlife Service. 2021. Meeting on July 1, 2021 with F. Lopez (FWS), J. Joy (ERM), K. Hempy-Mayer (ERM), M. Suter (ERM), and C. Hopkins (NFE).

2 U.S. Fish and Wildlife Service. 2018. Antillean Manatee Factsheet. Available online at: https://www.fws.gov/southeast/pdf/fact-sheet/manatee-english.pdf. Accessed: June 2021.

3 National Oceanic and Atmospheric Administration Fisheries. 2021. Vessel Strike Avoidance Measures. Available online at: https://media.fisheries.noaa.gov/2021-06/Vessel_Strike_Avoidance_Measures.pdf?null. Accessed: June 2021.

following conservation methods recommended by the FWS Caribbean Ecological Services Field Office for the manatee:[4]

- post permanent manatee awareness signs in prominent locations at the MFH Facility and on the FSU in accordance with FWS specifications to inform and remind personnel of the potential for manatees in the area; and

- immediately report any collision with and/or injury to a manatee to the Department of Natural and Environmental Resources Law Enforcement and the FWS Caribbean Ecological Services Field Office.

Other pertinent measures recommended by the FWS for the manatee[4] are covered in the *Vessel Strike Avoidance Measures*, including those described above.

Based on the implementation of the above avoidance measures, impacts would be limited to minor intermittent disturbance from the presence of the shuttle vessels. These impacts would be insignificant because they would be consistent with existing conditions due to ship traffic in a busy port. Therefore, NFE has determined that operation of the MFH Facility *may affect, but is not likely to adversely affect* the West Indian manatee.

Request for Concurrence

As noted above, NFE is requesting that the FWS concurs with or comments otherwise on the effects determination for the West Indian manatee discussed in this letter. We would appreciate your comments and look forward to working with you further on your review of the MFH Facility operations. If you have any questions, please contact me at 516-268-7413 or bcmelmurray@newfortressenergy.com, or contact Kara Hempy-Mayer, of Environmental Resources Management, at 612-219-9523 or kara.hempymayer@erm.com.

Sincerely,

Brannen McElmurray
Chief Development Officer
New Fortress Energy

cc: Kara Hempy-Mayer, ERM
Maggie Suter, ERM

Enclosures: Attachment A: Overview Maps
Attachment B: FWS IPaC Official Species List

[4] U.S. Fish and Wildlife Service. 2020. Technical Assistance to Evaluate Effects on Antillean Manatees. Caribbean Ecological Services Field Office: Boquerón, Puerto Rico.

Attachment A
Overview Maps

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 | Project_Overview_Small_Scale
Map Author: CAL.WILSON
Revised: 06/22/2021 | Scale: 1:1,267,200 when printed at 8.5"x11"
COORDINATE SYSTEM: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 Feet

MFH Facility

Shuttle Vessel Route

Exclusive Economic Zone Boundary

Data Sources
Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 1-A
Overview Map
San Juan Micro-Fuel Handling Facility
NFEnergía, LLC San Juan, Puerto Rico

NFEnergía puerto rico
ERM

© 2021 Microsoft Corporation © 2021 Maxar ©CNES (2021) Distribution Airbus DS, Maxar, © 2021 Microsoft Corporation Earthstar Geographics SIO along with The ERM Group

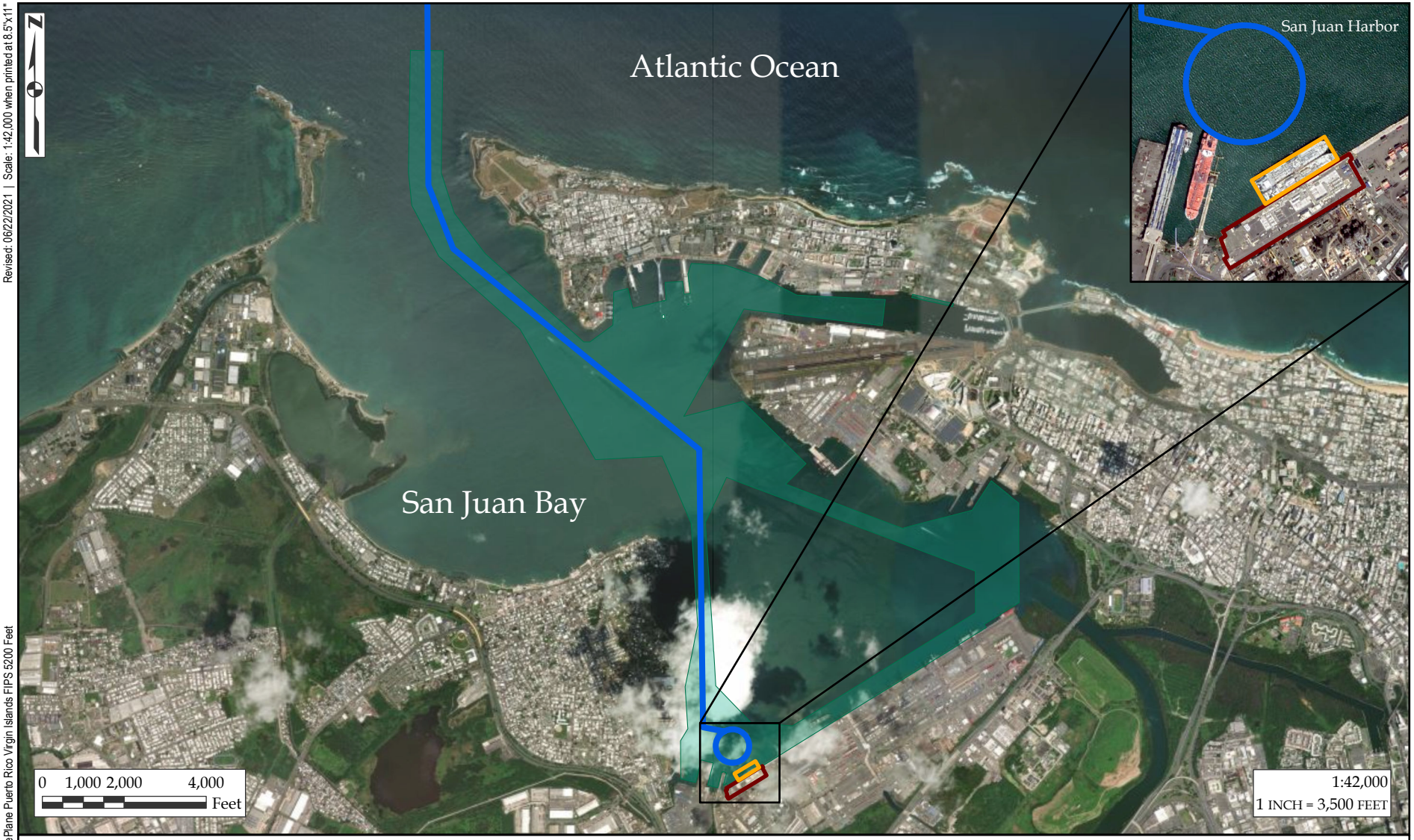
This information is for environmental review purposes only.

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 | Project_Overview_Large_Scale

Map Author: CAL.WILSON

Revised: 06/22/2021 | Scale: 1:42,000 when printed at 8.5"x11"

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



MFH Facility

Storage Unit Shuttle

Vessel Route

Army COE Maintained Coastal Channels & Waterways

Data Sources

Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 1-B
Overview Map

San Juan Micro-Fuel Handling Facility
NFEnergía, LLCSan Juan, Puerto Rico

NFEnergía puerto rico

ERM

© 2021 Microsoft Corporation © 2021 Maxar ©CNES (2021) Distribution Airbus DS, Maxar along with The ERM Group

This information is for environmental review purposes only.

Attachment B
FWS IPaC Official Species List

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) 851-7297 Fax: (787) 851-7440
http://www.fws.gov/caribbean/es

In Reply Refer To:
Consultation Code: 04EC1000-2021-SLI-0980
Event Code: 04EC1000-2021-E-01598
Project Name: NFEnergia

June 17, 2021

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 consultation process with the U.S. Fish and Wildlife Service (Service) 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.

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 (BA) to assist in its determination of the project's effects on species and their habitat.

However, a BA 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 BA 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 BA are described at 50 CFR 402.12.

If a Federal agency determines, based on its BA 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 and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in

the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

For more information:

U.S. Fish and Wildlife Service

Caribbean Ecological Services Field Office

Road 301, Km. 5.1 / Bo. Corozo

Boquerón, PR 00622

Telephone: (787) 851-7297

Fax: (787) 851-7440

Email: caribbean_es@fws.gov

http://www.fws.gov/caribbean/es

Send all documents to:

U.S. Fish and Wildlife Service

P.O. Box 491

Boquerón, Puerto Rico 00622

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- 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".

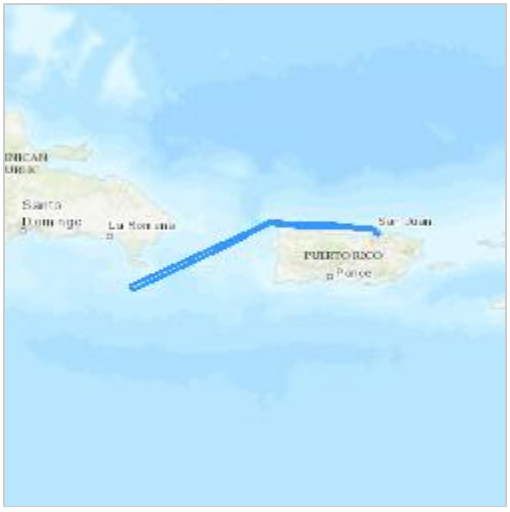
This species list is provided by:

Caribbean Ecological Services Field Office
Post Office Box 491
Boqueron, PR 00622-0491
(787) 851-7297

Project Summary

Consultation Code: 04EC1000-2021-SLI-0980
Event Code: 04EC1000-2021-E-01598
Project Name: NFEnergia
Project Type: OIL OR GAS
Project Description: Operation of the NFEnergia LNG import facility in the Port of San Juan.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@18.22861795,-67.98869439266036,14z



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 Fisheries[1], 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 *Trichechus manatus*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.
Species profile: https://ecos.fws.gov/ecp/species/4469

Reptiles

NAME	STATUS
Hawksbill Sea Turtle *Eretmochelys imbricata*	Endangered

There is **final** critical habitat for this species. Your location overlaps the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/3656
General project design guidelines:
https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc4769.pdf

Leatherback Sea Turtle *Dermochelys coriacea*	Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/1493
General project design guidelines:
https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc4769.pdf

Puerto Rican Boa *Epicrates inornatus*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/6628
General project design guidelines:
https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6757.pdf

Flowering Plants

NAME	STATUS
Palo De Rosa *Ottoschulzia rhodoxylon*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/5741

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Hawksbill Sea Turtle *Eretmochelys imbricata*	Final

https://ecos.fws.gov/ecp/species/3656#crithab

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 Act[1] and the Bald and Golden Eagle Protection Act[2].

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

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
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 migratory birds potentially occurring 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 AKN Phenology 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 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, migrating or present year-round in my project 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 refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. 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.

Marine Mammals

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

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

The Marine Mammal Protection Act prohibits the take 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.

ESTUARINE AND MARINE WETLAND

- E2EM1N
- E2FO3P
- E2RS1P
- E2SS3P
- E2US2P
- M2RS1P

ESTUARINE AND MARINE DEEPWATER

- M1UBL
- E1UBL

FRESHWATER EMERGENT WETLAND

- PEM1C

RIVERINE

- R5UBH

On Fri, Jul 2, 2021 at 9:52 AM Kara Hempy-Mayer <kara.hempymayer@erm.com> wrote:

> Hi Ms. Schull,
>
> I'm working on an essential fish habitat assessment in San Juan, Puerto Rico. I just wanted to confirm that you're the primary contact for consultation for this, and if there's anyone else we should include in any correspondence.
>
> Thank you,
> Kara
>
> Kara Hempy-Mayer
>
> Senior Consultant
>
> *Prounouns: she/her/hers*
>
> **ERM**

From: Jennifer Schull - NOAA Federal <jennifer.schull@noaa.gov>
Sent: Friday, July 2, 2021 9:18 AM
To: Kara Hempy-Mayer <kara.hempymayer@erm.com>
Cc: Pace Wilber - NOAA Federal <pace.wilber@noaa.gov>
Subject: Re: EFH Assessment - contact

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kara,

Thank you for reaching out. I would be your primary contact for ESA Section 7 consultations in Puerto Rico. For Essential Fish Habitat, please contact Pace Wilber, head of the Habitat Conservation Division Atlantic Branch. He is copied above.

Cheers,

Jennifer Schull

On Fri, Jul 2, 2021 at 11:17 AM Kara Hempy-Mayer <kara.hempymayer@erm.com> wrote:

> Thank you Jennifer. We'd actually already reached out to Kay Davy as we understand she'd been involved in a previous review for the facility: this is in regard to the operation of the NFEnergía LLC San Juan Micro-Fuel Handling Facility in San Juan. Let us know if we should include you in future correspondence.
>
> Thank you for Pace's information; we should be in touch about EFH soon!
>
> Best regards,
>
> Kara
>
> Kara Hempy-Mayer, ERM
>
> **T** +1 612 347 7137 | **M** 612 219 9523
>
> kara.hempymayer@erm.com

On Fri, Jul 2, 2021 at 11:26 AM Kay Davy - NOAA Federal <kay.davy@noaa.gov> wrote:

> Hi Kara,
>
> Jennifer Schull is my supervisor. We will be discussing this project (in terms of the ESA consultation) next week and will get back to you and Julia about setting up a time to meet with you.
>
> Thanks,
>
> Kay

From: Pace Wilber - NOAA Federal <pace.wilber@noaa.gov>
Sent: Friday, July 2, 2021 12:54 PM
To: Kara Hempy-Mayer <kara.hempymayer@erm.com>
Cc: Jennifer Schull - NOAA Federal <jennifer.schull@noaa.gov>; Julia Joy <Julia.Joy@erm.com>; Kay Davy - NOAA Federal <kay.davy@noaa.gov>
Subject: Re: EFH Assessment - contact

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kara. I'm confirming I will be the POC for the EFH Assessment, and I will work with staff from Puerto Rico to complete reviews. We have some familiarity with the project and have reviewed the FERC Docket. As a heads up . . . EFH consultations are between federal agencies, so we will need correspondence from FERC indicating it has delegated another entity, under 50 CFR 600.920(c), to serve as the non-federal representative for the EFH consultation. Such delegations are fairly routine, so an email to us or an email FERC has sent you that you forward to us will be sufficient. Please let me know if you have questions. Pace

On Fri, Jul 2, 2021 at 3:02 PM Kara Hempy-Mayer <kara.hempymayer@erm.com> wrote:

> Hi Pace – thank you for your response and heads up about needing FERC communication regarding EFH consultation. We'll coordinate with FERC to get that and be sure to pass it along. to working with you!
>
> Thank you,
>
> Kara
>
> Kara Hempy-Mayer, ERM
>
> **T** +1 612 347 7137 | **M** 612 219 9523

From: Kay Davy - NOAA Federal <kay.davy@noaa.gov>
Sent: Tuesday, July 13, 2021 9:46 AM
To: Kara Hempy-Mayer <kara.hempymayer@erm.com>
Cc: Pace Wilber - NOAA Federal <pace.wilber@noaa.gov>; Jennifer Schull - NOAA Federal <jennifer.schull@noaa.gov>; Julia Joy <Julia.Joy@erm.com>
Subject: Re: EFH Assessment - contact

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kara,

Please copy me on your response concerning FERC coordination and delegation of non-federal representation. We will need that for conducting ESA Section 7 consultation as well.

Thanks,
Kay

Fri 7/16/2021 4:31 PM
Kara Hempy-Mayer
RE: EFH Assessment - contact
To Kay Davy - NOAA Federal
Cc Pace Wilber - NOAA Federal; Jennifer Schull - NOAA Federal; Julia Joy
Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Hi Kay – We'll have a response soon on this. Thanks -Kara

Kara Hempy-Mayer, ERM
T +1 612 347 7137 | **M** 612 219 9523
kara.hempymayer@erm.com

Fri 7/16/2021 3:01 PM

Kimberly Poli <Kimberly.Poli@ferc.gov>

Federal Energy Regulatory Commission: Non-Federal Designee - New Fortress Project NOAA EFH

To pace.wilber@noaa.gov

Cc Brannen McElmurray; Maggie Suter

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Wilber,

This is written confirmation per 50 CFR 600.920 (c) – Federal agency consultation with the Secretary (Legal Information Institute (cornell.edu)), that for the proposed New Fortress Project, the Federal Energy Regulatory Commission designates the applicant NFEnergía LLC, as our non-federal designee to start Essential Fisheries Habitat consultation with the National Oceanic and Atmospheric Administration - NMFS. Please let us know if you have any further questions.

Best Regards,
Kim

Kimberly Poli
Environmental Biologist | Environmental Project Manager
Office of Energy Projects | Division of Gas-Environment and Engineering
Federal Energy Regulatory Commission
888 First Street, N.E., RM 62-34
Washington, DC. 20426
Ph: (202) 502-8406

From: Kara Hempy-Mayer
Sent: Wednesday, September 1, 2021 11:46 AM
To: Pace Wilber - NOAA Federal
Cc: bmcelmurray@newfortressenergy.com; Maggie Suter
Subject: NFEnergía LLC San Juan Micro-Fuel Handling Facility Operations - Draft EFHA
Attachments: NFE_Draft EFHA_08-30-2021.pdf

Hi Pace,

On behalf of Brannen McElmurray and NFEnergía LLC, we'd like to submit the draft essential fish habitat assessment (EFHA) for operation of the San Juan Micro-Fuel Handling Facility (MFH Facility) in the Port of San Juan, Puerto Rico (attached). NFEnergía LLC is submitting an application to the Federal Energy Regulatory Commission (FERC) for authorization to operate the MFH Facility under Section 3 of the Natural Gas Act. In an email to NOAA Fisheries dated July 16, 2021, FERC designated NFEnergía LLC as its non-federal designee to begin EFH consultation with NOAA Fisheries in fulfilling FERC's consultation requirements under the Magnuson-Stevens Fishery Conservation and Management Act. We ask that you review and concur or comment otherwise on the draft EFHA so we can provide FERC with the information necessary for an accurate and thorough assessment of the MFH Facility in regard to EFH.

Please let us know if you have any questions or need additional information. We're happy to set up a meeting in the next couple of weeks to discuss the EFHA and review any comments you may have if needed. We look forward to hearing from you.

Thank you,
Kara

Kara Hempy-Mayer
Senior Consultant
Prounouns: she/her/hers

ERM
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T +1 612 347 7137 | **M** 612 219 9523
E kara.hempymayer@erm.com | **W** www.erm.com

August 30, 2021

Mr. Pace Wilber
Branch Chief
NOAA Fisheries, Southeast Regional Office
Habitat Conservation Division
Atlantic & Caribbean Branch
263 13th Avenue South
St. Petersburg, Florida 33701

Re: NFEnergía LLC San Juan Micro-Fuel Handling Facility Operations – Draft Essential Fish Habitat Assessment

Dear Mr. Wilber,

NFEnergía LLC ("NFEnergía") owns and operates a liquefied natural gas ("LNG") import and regasification facility (the San Juan Micro-Fuel Handling Facility or "MFH Facility") at Wharves A and B of the Puerto de San Juan ("Port of San Juan"), Puerto Rico. The MFH Facility imports and distributes LNG to providers in Puerto Rico. The LNG is imported via "pocket-sized" LNG carriers ("shuttle vessels") traveling through the Atlantic Ocean and San Juan Bay. At the Port of San Juan, the LNG is transferred to a non-jurisdictional floating storage unit ("FSU") vessel. The shuttle vessels connect to the FSU, which is semi-permanently moored alongside the MFH Facility; there is no anchoring at the MFH Facility. The FSU transfers LNG onshore where certain quantities remain liquefied and are transloaded onto trucks for over-the-road delivery to end users, while certain quantities are regasified and made available to Units 5 and 6 of the adjacent San Juan Power Plant via a short, 10-inch-diameter segment of power plant piping. The MFH Facility has a regasification capacity of 130 million standard cubic feet per day ("MMscfd") and a truck loading capacity of 87.52 MMscfd. The FSU and MFH Facility locations, along with the shuttle vessel routes, are shown on the attached figures.

The MFH Facility sits on 6.1 paved and fenced acres of an industrial area at the far southern end of San Juan Harbor. Prior to the installation of the MFH Facility, the property was used for the delivery of food products to a business located at the site and the receipt of diesel oil for the adjacent power plant. The structures and equipment installed by NFEnergía to receive and transfer LNG include an operations building, a cryogenic LNG transfer header, LNG transfer equipment, a truck loading facility, vaporization equipment, and two 463-horsepower emergency diesel generators. The in-water activities during MFH Facility operation are limited to vessel traffic in San Juan Bay and the Atlantic Ocean, as well as the loading and transfer of LNG at the MFH Facility in San Juan Bay.

NFEnergía currently uses the INEOS Independence as the FSU, which has a cargo capacity of 27,500 cubic meters. The shuttle vessels currently consist of the Coral Encanto, which serves as the main vessel and has a cargo capacity of 30,000 cubic meters, and the Coral

Anthelia, which has a cargo capacity of 6,500 cubic meters. These vessels are examples of those that may serve as the FSU and shuttle vessels over time. The character and amount of vessel traffic associated with the MFH Facility is not markedly different than the vessel activity previously accessing the dock and wharves in connection with the prior operations.

NFEnergía completed construction of the MFH Facility in May 2020 and has been operating continuously since then. On March 19, 2021, the Federal Energy Regulatory Commission ("FERC" or "Commission") issued an Order determining that operation of the MFH Facility is subject to the Commission's jurisdiction under Section 3 of the Natural Gas Act, and directed NFEnergía to submit an application for authorization to operate the MFH Facility.[1]

In accordance with FERC guidelines for environmental reports for Natural Gas Act applications (18 Code of Federal Regulations ["CFR"] § 380.12(e)(6)), applicants are required to identify all federal Essential Fish Habitat ("EFH") that potentially occurs in the vicinity of the proposed activity and to provide the results of consultations with the National Oceanic and Atmospheric Administration Fisheries ("NOAA Fisheries") to contribute to the development of an EFH Assessment ("EFHA"). This assists in planning and ultimately helps facilitate compliance with the consultation requirements set forth in 16 United States Code ["U.S.C."] § 1855 of the Magnuson-Stevens Fishery Conservation and Management Act ("Magnuson-Stevens Act") (16 U.S.C. § 1801 et seq.). In an email to NOAA Fisheries dated July 16, 2021, FERC designated NFEnergía as its non-federal designee to begin EFH consultation with NOAA Fisheries. Environmental Resources Management ("ERM") is assisting NFEnergía with various environmental aspects of the MFH Facility, including agency consultations and preparation of the FERC application.

NFEnergía has developed a draft EFHA, which is provided below and will be included in the environmental report to be submitted with the NFEnergía's FERC application. The purpose of this letter is to request that NOAA Fisheries review and concur with or comment on the draft EFHA. The draft EFHA is based on multiple online resources available through the NOAA Fisheries website, including the NOAA Fisheries EFH Mapper,[2] which depicts EFH located within the action area.

Draft Essential Fish Habitat Assessment

The Magnuson-Stevens Act established a management system for marine fisheries resources in the United States under the jurisdiction of NOAA Fisheries. The stated purposes of the Magnuson-Stevens Act include conserving and managing fishery resources; providing for the preparation and implementation of fishery management plans ("FMPs"); establishing Regional Fishery Management Councils to prepare, monitor, and revise those plans; and promoting the protection of EFH in the review of activities conducted under Federal permits, licenses, or other authorities with the potential to affect EFH within the U.S Exclusive Economic Zone ("EEZ").

Eight regional fishery management councils are tasked with developing FMPs, which identify managed fisheries, the fish species included in each fishery, and the EFH for each species. The MFH Facility in San Juan and the shuttle vessel route are located within the jurisdiction of the Caribbean Fishery Management Council ("CFM Council") in the NOAA Fisheries Southeast Region. The CFM Council created four FMPs, which are organized by species or

[1] See FERC Docket No. CP20-466-000.

[2] NOAA Fisheries. n.d. Essential Fish Habitat Mapper. Available online at: https://www.habitat.noaa.gov/apps/efhmapper/. Accessed June 2021.

species groups (i.e., fishery): the spiny lobster; reef fish; queen conch; and corals and reef associated plants and invertebrates ("corals") fisheries. In addition, the Atlantic highly migratory species ("HMS") fishery, which is managed under the Consolidated Atlantic HMS FMP by NOAA Fisheries, extends into the waters of Puerto Rico. The purpose of the FMPs is to protect fisheries resources, while allowing for optimum yield.[3]

Essential Fish Habitat

EFH is defined as those habitats essential to managed marine, estuarine, and anadromous finfish, mollusks, and crustaceans, and includes "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S.C. § 1802). Per the NOAA Fisheries EFH Mapper accessed in June 2021, EFH for numerous species within the five fisheries listed above occurs throughout the action area in San Juan Bay and the Atlantic Ocean (see Table 1). Mapped EFH that could be affected by MFH Facility operation are described below. According to the NOAA Fisheries EFH Mapper, there are no Habitat Areas of Particular Concern in the action area.

TABLE 1

San Juan Micro-Fuel Handling Facility
EFH Mapped in the Action Area

Mapped EFH by Fishery	San Juan Harbor	San Juan Bay	Atlantic Ocean
San Juan			
Atlantic HMS			
Blue Marlin (*Makaira nigricans*)	X (adult)	X (adult)	X (juvenile, adult)
White Marlin (*Kajikia albida*)	X (juvenile, adult)	X (juvenile, adult)	X (juvenile, adult)
Sailfish *(Istiophorus albicans)*	X (juvenile, adult)	X (juvenile, adult)	X (juvenile, adult)
Longbill Spearfish (*Tetrapturus pfluegeri*)	–	–	X (all)
Caribbean Reef Shark (*Carcharhinus perezi*)	X (all)	X (all)	X (all)
Oceanic Whitetip Shark (*Carcharhinus longimanus*)	X (all)	X (all)	X (all)
Yellowfin Tuna (*Thunnus albacares*)	–	–	X (eggs, larval, spawning)
Corals and Reef Associated Plants and Invertebrates	–	X (post-egg, larval)	X (larval)
Queen Conch (*Lobatus gigas*)	–	X (post-egg, larval)	X (larval)
Spiny Lobster (2 species)	–	X (post-egg, larval)	X (larval)
Reef fish (43 Species)	–	X (post-egg, larval)	X (larval)

Source: NOAA Fisheries EFH Mapper (accessed June 2021)
"X (all)' indicates all life stages are present in the species or management units listed.

[3] NOAA Fisheries. 2021. Caribbean Reef Fish Fishery Management Plan. Available online at: https://www.fisheries.noaa.gov/management-plan/caribbean-reef-fish-fishery-management-plan. Accessed June 2021.

San Juan Bay

Two areas of San Juan Bay were analyzed for EFH: what is referred to here as the San Juan Harbor at the FSU and MFH Facility, and the greater San Juan Bay crossed by the shuttle vessel routes.

San Juan Harbor contains habitat designated by NOAA Fisheries as EFH for species in the Atlantic HMS fishery, including the blue marlin, white marlin, sailfish, Caribbean reef shark, and oceanic whitetip shark (see Table 1). Categories of mapped EFH in this area include benthic substrates (e.g., soft bottom habitats and submerged aquatic vegetation) and water column (pelagic) habitats immediately surrounding the FSU. Benthic substrates provide EFH for all life stages of Caribbean reef shark. No corals or seagrasses were observed within the project footprint at the MFH Facility.[4] Pelagic habitat provides EFH for adult blue marlin; juvenile and adult white marlin; juvenile and adult sailfish; and all life stages of Caribbean reef shark and oceanic whitetip shark.[5]

The portion of San Juan Bay crossed by the shuttle vessel routes is designated as EFH for the same species in the Atlantic HMS fishery that are listed above for San Juan Harbor, as well as for the corals fishery, the queen conch fishery, and the spiny lobster fishery (see Table 1). The categories of EFH in this area include benthic substrates and pelagic habitats in marine open water in San Juan Bay. In addition to the life stages supported by benthic and pelagic habitat described above for the Atlantic HMS fishery, benthic substrates in this area also provide habitat for the post-egg and larval stages of corals,[6] queen conch,[7] spiny lobster,[8] and reef fish.[9] Suitable hardbottom habitat for corals and reef fish is likely limited to the approach and entrance to San Juan Bay.

Atlantic Ocean

The Atlantic Ocean north and west of Puerto Rico surrounding the shuttle vessel routes is designated as EFH for all the species listed above for San Juan Bay, along with additional species in the Atlantic HMS fishery, including the longbill spearfish and yellowfin tuna (see Table 1).

Categories of mapped EFH in the Atlantic Ocean include benthic and pelagic habitat in marine open water. In addition to the life stages of HMS fishery species supported by benthic and pelagic habitat described above for San Juan Bay, pelagic habitat in the Atlantic Ocean also supports both juvenile and adult blue marlin, all life stages of longbill spearfish; and egg, larval, and spawning life stages of yellowfin tuna. Benthic habitat supports the larval stages of corals, queen conch, spiny lobster, and reef fish.

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4 USCG. 2018. San Juan Micro Fuel Handling Facility – Follow-on Waterway Suitability Assessment. USCG Sector San Juan: San Juan, Puerto Rico. 686 pp.

5 CFM Council. n.d. Atlantic Highly Migratory Species Fishery Management Plan. Available online at: https://media.fisheries.noaa.gov/dam-migration/atlantic-hms-consolidated-fmp.pdf Accessed June 2021.

6 CFM Council. n.d. Fishery Management Plan for Corals and Reef Associated Plants and Invertebrates of Puerto Rico and the United States Virgin Islands. Available online at: https://repository.library.noaa.gov/view/noaa/19792 Accessed June 2021.

7 CFM Council. n.d. Fishery Management Plan for the Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands. Available online at: https://repository.library.noaa.gov/view/noaa/18391 Accessed June 2021.

8 CFM Council. n.d. Fishery Management Plan for the Spiny Lobster Fishery of Puerto Rico and the U.S. virgin Islands. Available online at: https://repository.library.noaa.gov/view/noaa/18383 Accessed June 2021.

9 CFM Council. 2021. Caribbean Reef Fish Fishery Management Plan. Available online at: https://www.caribbeanfmc.com/fishery-management. Accessed June 2021.

Impacts

No anchoring or dredging will be associated with the operation of the MFH Facility. Past construction at the MFH Facility included the replacement of existing piles in the water to support the overwater portion of the dock, which will continue to be used. Impacts on EFH from operation of the MFH Facility would primarily occur due to shuttle vessel traffic to the MFH Facility through the Atlantic Ocean and San Juan Bay. The shuttle vessel routes cross approximately 4.0 miles of EFH in San Juan Bay in established shipping lanes between 36 and 40 feet deep, and about 160 miles in the Atlantic Ocean in the shipping route extending from the EEZ to San Juan Bay at depths generally between about 3,000 and 10,000 feet. Shuttle vessels transporting LNG to the FSU make approximately 10 round trips per month, or 120 trips per year, although the actual increase in ship traffic is likely to be partially offset by the decrease in ship traffic transporting other fuels that are being displaced by the LNG and natural gas made available at the MFH Facility.[4]

Shuttle vessel traffic would primarily reduce habitat quality by generating noise; creating a hazard to aquatic organisms through the risk of physical collisions; and creating turbulence that can increase turbidity. The affected waterways constitute a highly-trafficked area, and shuttle vessels will use well-established shipping lanes. Therefore, impacts would be permanent but intermittent and minor.

While there may be a small risk of a shuttle vessel grounding and disturbing benthic habitat, this is not anticipated based on the vessels using only established shipping lanes, as well as the implementation of established U.S. Coast Guard ("USCG") and San Juan Port Control safety protocols for commercial vessels traveling in San Juan Bay.[4] Groundings in San Juan Bay are fairly uncommon; the USCG Sector San Juan reported two groundings in the Port of San Juan between 2008 and 2018.[4]

In general, marine vessels can also affect EFH through the release of ship ballast water. Ballast water can have different temperature, oxygen, and salinity levels than receiving waters, or may contain exotic invasive aquatic species ("invasive species"), particularly ballast water from vessels of foreign origination. The release of ballast water with different temperature, oxygen, and salinity levels can alter aquatic habitat conditions within the immediate vicinity of the discharge point, although the effects would generally be temporary as the water is mixed, particularly in large bodies of water. The introduction of invasive species can have longer term effects on aquatic habitat by permanently altering species composition, increasing competition for resources, or changing predator–prey relationships.[10,11]

Under normal operating conditions, ballast water will be taken into the shuttle vessels during LNG off-loading at the MFH Facility rather than discharged. To the extent there is potential for the shuttle vessels to discharge ballast water, they would exchange ballast water sourced from distant ports and waters at least 200 nautical miles from the nearest land in water at least 656 feet (200 meters) in depth where possible. If this is not possible, they would do the exchange as far from the nearest land feasible and in all cases, at least 50 nautical miles from the nearest land or in areas designated by the Port state. The stationary FSU will typically use water from San Juan Harbor for ballast water exchange and, in the event it has ballast water sourced from distant ports or waters, would implement measures similar to those discussed above with respect to the shuttle

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[10] Tennessen, T. 2011. 5 Invasive Species You Should Know. Available online at: https://ocean.si.edu/ocean-life/5-invasive-species-you-should-know. Accessed July 2021.

[11] CAB International. 2021. *Caulerpa taxifolia* (Killer Algae). Datasheet. Available online at: https://www.cabi.org/isc/datasheet/29292#tosummaryOfInvasiveness. Accessed July 2021.

vessels. Therefore, no ballast water likely to contain invasive species will be discharged within the waters of San Juan Bay or near coastal areas. In addition, the tidal flow of the harbor and ships moving into and out of the FSU berthing area will displace any ballast water released into San Juan Harbor and circulate it around and out of the berthing area, diluting any effects from altered oxygen, temperature, or salinity levels. Furthermore, any temperature difference between ballast water and the receiving water would likely be small because the ballast water is stored in the ship's hull below the waterline. The small volume of discharged ballast water from the vessels (about 0.74 million gallons) relative to the volume of the bay will also reduce any potential effects to habitat.

The potential for spreading invasive species elsewhere will be minimized because ballast water discharges from transiting vessels will be managed under ballast water management plans that comply with ballast water regulations and guidelines from the International Maritime Organization ("IMO") International Convention for the Prevention of Pollution from Ships ("MARPOL") (i.e., Regulation B-1 of the *2004 International Convention for the Control and Management of Ships' Ballast Water and Sediments* and *Marine Environment Protection Committee Resolutions* 124[53], 126[53], and 127[53]; the 2018 federal Vessel Incidental Discharge Act ["VIDA"] [part of Public Law 115-282] along with the Environmental Protection Agency's 2013 Vessel General Permit under the National Pollutant Discharge Elimination System and USCG regulations for vessels in commerce [per 33 CFR § 151.2030 and 151.2050]). The FSU and shuttle vessels will also be equipped with a Marine Growth Prevention System ("MGPS") for control of macrofouling organisms, which will use a zinc-aluminum anode array to prevent fouling of the seawater intake and ballast water systems. Therefore, impacts on EFH in San Juan Bay from ballast water exchange would be infrequent and negligible.

There would still be some risk of invasive species being transported on the hull of the shuttle vessels. Shuttle vessels will operate in compliance with 33 CFR § 151.2050, which would reduce this risk by requiring the removal of fouling organisms from a vessel's hull, piping, and tanks on a regular basis and disposal of any removed substances in accordance with local, state, and federal regulations.

Along with ballast water, the FSU and shuttle vessels draw in seawater through sea chests for distribution and treatment for use in the various onboard operating systems. Seawater withdrawal for ballast water and other uses could result in entrainment or impingement of aquatic organisms such as fish eggs, plankton, and juvenile fish. Given the current level of ship traffic and related activities in San Juan Bay, the intermittent incidental entrainment or impingement of aquatic organisms resulting from vessel operation is expected to have a minimal impact on EFH.

The FSU and shuttle vessels will also adhere to a Garbage Management Plan. The revised IMO MARPOL Annex V with an entry into force date of 1 January 2013 limits the discharge of waste into the sea unless explicitly permitted under the Annex, which generally includes items such as food wastes, identified cleaning agents and additives, and cargo residues entrained in wash water which are not harmful to the marine environment. Waste from the FSU will be pumped or disposed of onshore at appropriate facilities as much as possible. Further, grey water from the FSU will be pumped to shore for disposal and not discharged to the bay. Based on adherence to the MARPOL standards and the above measures, a reduction in EFH water quality from any release of permitted waste into San Juan Bay and the Atlantic Ocean would be intermittent and minor.

Spills of hazardous substances could occur during operations. The release of LNG, in the unlikely event that any were to come into contact with the water, would have a negligible impact

on EFH because LNG would immediately vaporize out of the water. In addition, the shuttle vessels are fitted with an array of LNG cargo monitoring and control systems in compliance with IMO conventions and industry standards that automatically monitor for leaks of LNG.[9] Potential surface water quality impacts associated with accidental spills or leaks of other hazardous liquids (e.g., fuel or antifreeze) from LNG vessels will be avoided or minimized by adherence to conditions of MARPOL and USCG standards for vessels in commerce, restricting the location or method of refueling and storage facilities, and requiring cleanup in the event of a spill or leak. Hazardous materials such as fuel and antifreeze from trucks operating at the MFH Facility could also be inadvertently released into adjacent marine habitat. A spill containment system is installed and operating at the MFH Facility that routes spills away from process equipment and other exit points and gathers spilled material into an impoundment sump. To reduce the risk and severity of impacts should a spill occur, the MFH Facility will adhere to its Emergency Response Plan ("ERP"). The ERP establishes the procedures for responding to emergencies (e.g., spills) that may occur at the MFH Facility. The implementation of the ERP should result in the minimization of damage to the environment, as well as personnel, equipment, and structures. As such, impacts on EFH from spills of hazardous substances would be minor.

Summary

Based on the information provided above, operation of the MFH Facility would have intermittent and negligible to minor adverse effects on EFH. There would be no permanent loss or conversion of EFH. Intermittent impacts would include disturbance to pelagic habitat from shuttle vessel traffic and the FSU in the Atlantic Ocean and San Juan Bay, and infrequent ballast water discharges and withdrawals in accordance with applicable regulations. These activities are consistent with existing activities in San Juan Bay and the Atlantic Ocean and would not measurably alter baseline conditions in these waterbodies. Therefore, adverse impacts on EFH in San Juan Bay and the Atlantic Ocean would not be substantial.

As noted above, NFEnergía is requesting that NOAA Fisheries reviews and concurs with or comments on the effects determination for EFH discussed in this letter. This will ensure that NFEnergía can provide FERC with the information necessary for an accurate and thorough assessment of the MFH Facility.

We would appreciate your comments and look forward to working with you on the review of the MFH Facility operations. If you have any questions, please contact me at 516-268-7413 or bcmelmurray@newfortressenergy.com, or contact Kara Hempy-Mayer, of Environmental Resources Management, at 612-219-9523 or kara.hempymayer@erm.com.

Sincerely,

Brannen McElmurray
Chief Development Officer
New Fortress Energy

cc: Kara Hempy-Mayer, ERM
Maggie Suter, ERM

Enclosures: Attachment A: Overview Maps

Attachment A
Overview Maps

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 | Project_Overview_Small_Scale
Map Author: CAL.WILSON
Revised: 06/22/2021 | Scale: 1:1,267,200 when printed at 8.5"x11"
COORDINATE SYSTEM: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 Feet

MFH Facility

Shuttle Vessel Route

Exclusive Economic Zone Boundary

Data Sources
Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 1-A
Overview Map
San Juan Micro-Fuel Handling Facility
NFEnergía, LLC San Juan, Puerto Rico

NFEnergía puerto rico
ERM

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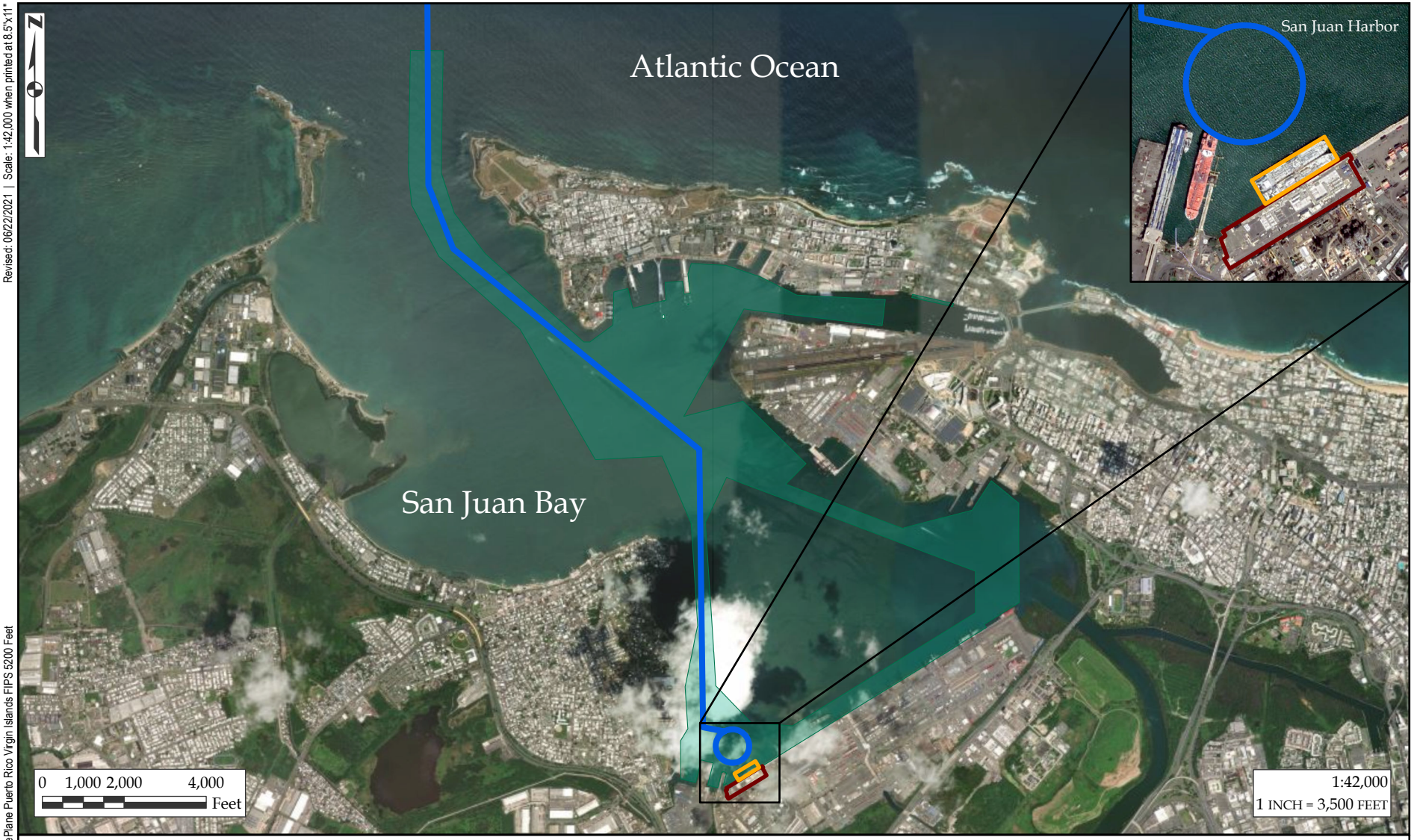
APRX Path | Layout Name: \\usbdcfs02\data\Boston\Team\DMMV\Clients_L_P\New_Fortress_Energy\Puerto_Rico_FERC\APRX\2021\2021_06_New_Fortress_FERC_Analysis\2021_06_New_Fortress_FERC_Analysis.aprx | Project_Overview_Large_Scale

Map Author: CAL.WILSON

Revised: 06/22/2021 | Scale: 1:42,000 when printed at 8.5"x11"

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



MFH Facility

Storage Unit Shuttle

Vessel Route

Army COE Maintained Coastal Channels & Waterways

Data Sources

Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 1-B
Overview Map

San Juan Micro-Fuel Handling Facility
NFEnergía, LLCSan Juan, Puerto Rico

NFEnergía puerto rico

ERM

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From: Pace Wilber - NOAA Federal <pace.wilber@noaa.gov>
Sent: Wednesday, September 1, 2021 7:07 PM
To: Kara Hempy-Mayer
Cc: bmcelmurray@newfortressenergy.com; Maggie Suter
Subject: Re: NFEnergía LLC San Juan Micro-Fuel Handling Facility Operations - Draft EFHA

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Thanks Kara. We will let you know if we have any questions about the assessment.

On Fri, Jun 11, 2021 at 1:53 PM Julia Joy <Julia.Joy@erm.com> wrote:

> Good afternoon, Ms. Davy,
>
> New Fortress Energy, LLC (NFE) constructed, owns, and operates an LNG import facility (the MFH Facility or Project) in the Port of San Juan. As part of its permitting process under the ESA, the U.S. Army Corps of Engineers (USACE) completed consultation with your office on December 13, 2018 for the reconstruction of Wharf B as part of the development of the MFH Facility (SER-2018-19584; consultation letter attached).
>
> The MFH Facility is now constructed and in operation. On March 19, 2021, the Federal Energy Regulatory Commission (FERC) issued an Order on Show Cause determining that operation of the Project is subject to the Commission's jurisdiction under Section 3 of the Natural Gas Act, and directing NFE to submit an application for authorization to operate the MFH Facility. In accordance with FERC application requirements (18 C.F.R. § 380.13(b)) and Section 7 of the Endangered Species Act (ESA), NFE is required to notify FERC if any federally listed species or designated critical habitat may be affected by the Project. ERM is assisting NFE in the consultation process and species assessments. Accordingly, we are reaching out to NOAA Fisheries to request information on species under the agency's jurisdiction that could be affected by Project operation.
>
> I understand that you were the main contact for the USACE Nationwide Permit 3 consultation for the Project, and would appreciate your assistance on this new aspect of the Project. I have obtained a list of federally threatened or endangered species under NOAA Fisheries jurisdiction in Puerto Rico (please see attached). I would like to set up a Microsoft Teams call with you to discuss this list, and determine which species should be included in the consultation for the Project.
>
> Are you available for a call on Monday or Tuesday next week? I am also available today, should that work for you.
>
> Thank you in advance for your time.
>
> Best Regards,
>
> Julia

Fri 6/11/2021 6:06 PM
Kay Davy - NOAA Federal <kay.davy@noaa.gov>
Re: New Fortress Energy LLC San Juan LNG Import Facility
To Julia Joy
Cc Kara Hempy-Mayer; Jennifer Schull - NOAA Federal
You replied to this message on 6/14/2021 9:13 AM.
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Hi Julia,

Thank you for reaching out to me about the project that I reviewed in 2018. I will be glad to go over the species/habitat list with you next week in regards to potential impacts from the operation of the LNG import facility. Tuesday afternoon would be a better day and time for me.

Thanks,
Kay

> On Mon, Jun 14, 2021 at 10:21 AM Julia Joy <Julia.Joy@erm.com> wrote:
>
> > Thanks, Kay. I will send an invite out shortly for Tuesday afternoon.
> >
> > Julia Joy
> >
> > Senior Consultant
> >
> > *Pronouns: she/her/hers*

From: Kay Davy - NOAA Federal <kay.davy@noaa.gov>
Sent: Monday, June 14, 2021 10:06 AM
To: Julia Joy <Julia.Joy@erm.com>
Subject: Re: New Fortress Energy LLC San Juan LNG Import Facility

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In order to prepare for tomorrow's meeting, can you give me more information on the project operation details in regards to what I previously reviewed? This wouldn't be considered an after-the-fact situation would it?

I am not familiar with an "Order on Show cause". Basically, I need more details on why FERC is reaching out to us now. If there has been a significant change in the project (design), ESA consultation with NMFS may need to be re-initiated.

On Tue, Jun 15, 2021 at 10:10 AM Julia Joy <Julia.Joy@erm.com> wrote:

Good morning, Kay,

Attached is the FERC Show Cause document, which provides a detailed explanation of the order.

The Project has not changed, but not all aspects of the Project were included in the previous consultation. The previous consultation included the reconstruction of Wharf B for the MFH Facility (the LNG import facility now located at Wharf B). The operation of the Project (e.g., the import/transfer of LNG) was not included in the consultation.

Operation of the Project will include the distribution of LNG via ship-to-truck trans-loading operations and through a direct natural gas vapor connection to the adjacent Puerto Rico Electric Power Authority's (PREPA) San Juan Power Plant. The LNG is imported from Jamaica via LNG carriers (shuttle vessels) traveling through the Atlantic Ocean and San Juan Bay. At the Port of San Juan, the LNG is transferred to the floating storage unit [FSU], an LNG storage vessel semi-permanently moored alongside the MFH Facility.

The MFH Facility is paved and includes a control building, a cryogenic LNG transfer header, LNG transfer equipment, a truck loadout facility, and a 75-kilowatt emergency diesel generator. The site is enclosed by a fence. NFE will utilize one of two LNG carriers to serve as the FSU. The Coral Athelia is 115 meters long with a cargo capacity of 6,367 cubic meters. The Coral Energy is 155 meters long with a cargo capacity of 15,288 cubic meters. The shuttle vessels have a cargo capacity of 30,000 cubic meters, which is analogous with the FSU.

Please let me know if you'd like any additional information before our meeting this afternoon.

Cheers,

Julia

From: Kay Davy - NOAA Federal <kay.davy@noaa.gov>
Sent: Tuesday, June 15, 2021 12:21 PM
To: Julia Joy <Julia.Joy@erm.com>
Cc: Kara Hempy-Mayer <kara.hempymayer@erm.com>
Subject: Re: New Fortress Energy LLC San Juan LNG Import Facility

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Hi Julia,

Thank you for sending the additional information. I'm going to need to get some guidance from my supervisor on how to handle this. I've sent a request and I'm waiting to hear back. That being said, I will not be ready to discuss this project this afternoon. Can we please reschedule?

As a preliminary review based on the information provided, I believe we would need to consult on all of the species on your list and also *Acropora* critical habitat.

Thanks,

Kay

On Tue, Jun 15, 2021 at 1:51 PM Julia Joy <Julia.Joy@erm.com> wrote:

> HI Kay,
>
> You're welcome. I am available all week except Wednesday afternoon. We can reschedule at your convenience.
>
> Thank you!
>
> Julia

From: Kay Davy - NOAA Federal <kay.davy@noaa.gov>
Sent: Tuesday, June 15, 2021 2:12 PM
To: Julia Joy <Julia.Joy@erm.com>
Cc: Kara Hempy-Mayer <kara.hempymayer@erm.com>
Subject: Re: New Fortress Energy LLC San Juan LNG Import Facility

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For clarification, has there been any ESA consultation conducted on the operation of this facility or its ships (not the wharf) under its current name or any other name?

On Tue, Jun 15, 2021 at 3:06 PM Kay Davy - NOAA Federal <kay.davy@noaa.gov> wrote:

> I spoke with my supervisor and she needs to see additional information. Can you provide the vessel routes for the ships associated with the NFE? Do you know if there is a timeline associated with FERC's review of NFE?

Thu 6/17/2021 2:30 PM

Julia Joy

FW: New Fortress Energy LLC San Juan LNG Import Facility

To Kay Davy - NOAA Federal

Cc Kara Hempy-Mayer

You replied to this message on 6/29/2021 9:09 AM.

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Jamaica vessel routes-EEZ_20210616T214637.545585.png
.png File

Hi Kay,

In answer to your questions:

- No, there has not been any ESA consultation conducted on operation of the facility or shuttle vessels under the current or any other name. We are initiating this consultation now.
- The vessel route is attached.
- The application is due to the FERC on September 19, 2021.

Please let me know if you have further questions.

Thanks!

Julia

From: Kay Davy - NOAA Federal <kay.davy@noaa.gov>
Sent: Friday, July 9, 2021 10:41 AM
To: Julia Joy <Julia.Joy@erm.com>
Cc: Kara Hempy-Mayer <kara.hempymayer@erm.com>
Subject: Re: FW: New Fortress Energy LLC San Juan LNG Import Facility

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HI Julia,

Who is your contact person with FERC? We have a few questions for them.

Thanks,

Kay

On Wed, Jul 14, 2021 at 4:41 PM Julia Joy <Julia.Joy@erm.com> wrote:

> Hi Kay,
>
> We have not submitted the project to FERC yet, so we do not have a contact to pass along to you. We are currently the non-federal representative, and can coordinate with you to provide whatever information you need until the application is filed with FERC. As requested, Kara will copy you on the response concerning FERC coordination and delegation of non-federal representation (once obtained). Is there anything specific you need, or do you have questions that we might be able to answer for you at this time?
>
> Warm Regards,
>
> Julia
>
> Julia Joy
>
> Senior Consultant

Wed 7/14/2021 4:04 PM

Kay Davy - NOAA Federal <kay.davy@noaa.gov>

Re: FW: New Fortress Energy LLC San Juan LNG Import Facility

To Julia Joy

Cc Kara Hempy-Mayer; Maggie Suter

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I think once we have confirmation from FERC of the non-federal delegation that should be all that we need from them. My supervisors are needing this confirmation in order for us to continue coordinating with you concerning the information (i.e., affected species/habitats) that you have requested from us. I apologize for it taking so long to coordinate with you on this, it's just that we have to ensure that we are following proper protocol.

Thanks,
Kay

On Fri, Jul 16, 2021 at 4:00 PM Kimberly Poli <Kimberly.Poli@ferc.gov> wrote:

> Dear Kay Davy and Jennifer Schull,
>
> This is written confirmation that per the Federal Energy Regulatory Commission regulations, 18 CFR section 380.13 (https://www.law.cornell.edu/cfr/text/18/380.13), there are procedures for compliance with the Endangered Species Act. For informal consultation, section 380.13(b), *Procedures for informal consultation*, states:
>
> (1) *Designation of non-Federal representative. The project sponsor is designated as the Commission's non-Federal representative for purposes of informal consultations with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) under the Endangered Species Act of 1973, as amended (ESA).*
>
> For the proposed New Fortress Project, the applicant NFEnergía LLC, is designated as the Federal Energy Regulatory Commission's non-federal designee to start the ESA informal consultation process with the National Oceanic and Atmospheric Administration – NMFS. Please let us know if you have any further questions.
>
> Best Regards,
>
> Kim
>
> Kimberly Poli
>
> Environmental Biologist | Environmental Project Manager

From: Kay Davy - NOAA Federal <kay.davy@noaa.gov>
Sent: Friday, July 16, 2021 6:03 PM
To: Kimberly Poli <Kimberly.Poli@ferc.gov>
Cc: jennifer.schull@noaa.gov; Brannen McElmurray <bmcelmurray@newfortressenergy.com>; Maggie Suter <Maggie.Suter@erm.com>
Subject: Re: Federal Energy Regulatory Commission: Non-Federal Designee - New Fortress Project NOAA Section 7

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Hi Kim,

Thank you for confirming that the applicant NFEnergía LLC is designated as the Federal Energy Regulatory Commission's non-federal designee. A separate email specifically requesting to initiate ESA Consultation (along with supporting documents) should be sent to the following address:

nmfs.ser.esa.consultations@noaa.gov

Thanks,

Mon 8/2/2021 9:14 AM

Julia Joy

NFEnergía LLC San Juan Micro-Fuel Handling Facility - request for consultation

To nmfs.ser.esa.consultations@noaa.gov; Kay Davy - NOAA Federal

Cc Kara Hempy-Mayer; Maggie Suter

FERC Show Cause Order 03-19-21 CP20-466-000.pdf .pdf File

SER-2018-19584_NMFS.pdf .pdf File

MFH Facility Overview Maps.pdf .pdf File

Dear Ms. Davy,

NFEnergía LLC ("NFE") owns and operates a liquefied natural gas ("LNG") import and regasification facility ("Micro-Fuel Handling Facility" or "MFH Facility") in the Port of San Juan, Puerto Rico (see attached overview maps). As part of its permitting process under the Endangered Species Act ("ESA"), the U.S. Army Corps of Engineers completed consultation with your office on December 13, 2018 for the reconstruction of Wharf B as part of the development of the MFH Facility (SER-2018-19584; consultation letter attached). The MFH Facility is now constructed and in operation. On March 19, 2021, the Federal Energy Regulatory Commission ("FERC" or "Commission") issued an Order on Show Cause (attached) determining that operation of the Project is subject to the Commission's jurisdiction under Section 3 of the Natural Gas Act, and directing NFE to submit an application for authorization to operate the MFH Facility. As part of the application process, NFE is acting as FERC's designated non-federal representative for purposes of informal consultation under Section 7 of the ESA in accordance with FERC application requirements (18 Code of Federal Regulations § 380.13(b)), as verified by FERC in an email to NOAA Fisheries dated July 16, 2021. Environmental Resources Management ("ERM") is assisting NFE in the consultation process and species assessments.

On behalf of NFE, ERM is requesting the initiation of informal consultation with NOAA Fisheries under Section 7 of the ESA for federally listed species under NOAA Fisheries jurisdiction with the potential to be affected by operation of the MFH Facility.

As part of this consultation, ERM requests a meeting with NOAA Fisheries to discuss the list of species that should be considered for consultation. We look forward to hearing from you.

Best Regards,
Julia Joy

Julia Joy
Senior Consultant
Pronouns: she/her/hers

Tue 8/3/2021 10:07 PM

Kay Davy - NOAA Federal <kay.davy@noaa.gov>

Potential impacts associated with NFE San Juan

To Julia Joy

You forwarded this message on 8/4/2021 8:28 AM.
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Hi Julia,

I spoke with my supervisors and with co-workers who have experience with LNG type facilities/transport concerning potential impacts associated with this project. Below is a list of potential impacts that should be addressed by your environmental assessment as a part of the ESA consultation. The list is not all-inclusive and only meant to point out key items that we will need to see.

1. Impacts to the surrounding coral reefs from potential ship groundings (provide analyses of all ESA-listed coral species and *Acropora* critical habitat found in Puerto Rico)
2. Potential whale encounters during vessel transit (provide analyses of all ESA-listed whale species found near Puerto Rico and in the transit area between San Juan and Jamaica)
3. Potential impacts to sea turtles, giant manta ray, and listed sharks from vessel transit encounter and loss of foraging habitat (provide analyses of all ESA-listed fish and turtles found in Puerto Rico)
4. Impacts associated with ballast water release (effects to water quality, introduction of diseases like stony coral tissue loss disease, introduction of invasive species)
5. Impacts from vessel cooling water intake/discharge (effects to water quality, etc)
6. Impacts from accidental vessel fuel or LNG spills (effects to endangered species and habitats)

I hope this helps. If you have any questions, please feel free to reach out.

Thanks,
Kay

Julia Joy

From: Julia Joy
Sent: Thursday, September 9, 2021 3:41 PM
To: Kay Davy - NOAA Federal
Cc: Kara Hempy-Mayer; Maggie Suter
Subject: NFEnergía LLC San Juan Micro-Fuel Handling Facility Operations - Impact Assessment for Federally Listed Species
Attachments: NFE_NOAA Section 7 Consult Letter_09-09-2021.pdf

Hi Kay,

On behalf of Brannen McElmurray and NFEnergía LLC, we'd like to submit the impact assessment for operation of the San Juan Micro-Fuel Handling Facility (MFH Facility) in the Port of San Juan, Puerto Rico (attached). NFEnergía LLC is submitting an application to the Federal Energy Regulatory Commission (FERC) for authorization to operate the MFH Facility under Section 3 of the Natural Gas Act. In an email to NOAA Fisheries dated July 16, 2021, FERC designated NFEnergía LLC as its non-federal designee to begin consultation with NOAA Fisheries in fulfilling FERC's consultation requirements under the Endangered Species Act. We ask that you review and concur or comment otherwise on the effects determinations for federally listed species so we can provide FERC with the information necessary for an accurate and thorough assessment of the MFH Facility.

Please let us know if you have any questions or need additional information. We're happy to set up a meeting in the next couple of weeks to discuss the assessment and review any comments you may have if needed. We look forward to hearing from you.

Cheers,
JJ

Julia Joy
Senior Consultant
Pronouns: she/her/hers

ERM
222 South 9th Street | Suite 2900 | Minneapolis, MN | 55402
T +1 612.347.7106 | **M** +1 612.655.3434
E Julia.Joy@erm.com | **W** www.erm.com

September 9, 2021

Kay Davy
NOAA Fisheries
Protected Resources Division
Caribbean Ecological Services Field Office
P.O. Box 491
Boquerón, Puerto Rico 00622

Re: NFEnergía LLC San Juan Micro-Fuel Handling Facility, San Juan, Puerto Rico

Dear Ms. Davy:

NFEnergía LLC ("NFEnergía") owns and operates a liquefied natural gas ("LNG") import and regasification facility ("Micro-Fuel Handling Facility" or "MFH Facility") at Wharves A and B of the Puerto de San Juan ("Port of San Juan"), Puerto Rico. The MFH Facility imports and distributes LNG to providers in Puerto Rico. The LNG is imported via "pocket-sized" LNG carriers ("shuttle vessels") traveling through the Atlantic Ocean and San Juan Bay. At the Port of San Juan, the LNG is transferred to a non-jurisdictional floating storage unit ("FSU") vessel. The shuttle vessels moor directly to the FSU, which is semi-permanently moored alongside the MFH Facility; there is no anchoring at the MFH Facility. The FSU transfers LNG onshore where certain quantities remain liquefied and are transloaded onto trucks for over-the-road delivery to end users, while certain quantities are regasified and made available to Units 5 and 6 of the adjacent San Juan Power Plant via a short, 10-inch-diameter segment of power plant piping. The MFH Facility has a regasification capacity of 130 million standard cubic feet per day ("MMscfd") and a truck loading capacity of 87.52 MMscfd. The action area for purposes of consultation under Section 7 of the Endangered Species Act includes the FSU and MFH Facility locations along with the shuttle vessel routes, as shown on the attached figures (see Attachment A). The shuttle vessel routes travel through established shipping lanes between 36 and 40 feet deep in San Juan Bay, and about 3,000 to 10,000 feet deep through the Atlantic Ocean out to the Exclusive Economic Zone ("EEZ").

The MFH Facility sits on 6.1 paved and fenced acres of an industrial area at the far southern end of San Juan Harbor. It includes an operations building, a cryogenic LNG transfer header, LNG transfer equipment, a truck loading facility, vaporization equipment, and two 463-horsepower emergency diesel generators. NFEnergía proposes to continue year-round operations of the MFH Facility. The in-water activities during operations are limited to vessel traffic in San Juan Bay and the Atlantic Ocean, as well as the loading and transfer of LNG at the FSU and MFH Facility in San Juan Bay.

NFEnergía uses the INEOS Independence as the current FSU, which has a cargo capacity of 27,500 cubic meters. Two LNG carriers currently serve as the shuttle vessels to the FSU. The Coral Encanto serves as the main vessel, and has a cargo capacity of 30,000 cubic meters. The Coral Anthelia may also be used as a shuttle vessel, and has a cargo capacity of 6,500 cubic meters. These vessels are examples of those that may serve as the FSU and shuttle vessels

over time. The character and amount of vessel traffic associated with Wharves A and B where the MFH Facility is located is not markedly different than the vessel activity previously accessing the dock and wharves in connection with the operation of facilities that previously existed at that location.

The U.S. Army Corps of Engineers ("USACE") completed consultation with your office on September 25, 2018 for the reconstruction of Wharf B as part of the development of the MFH Facility. NFEnergía began constructing the MFH Facility in 2018 and commenced commercial operations in 2020. On March 19, 2021, the Federal Energy Regulatory Commission ("FERC" or "Commission") issued an Order on Show Cause determining that operation of the MFH Facility is subject to the Commission's jurisdiction under Section 3 of the Natural Gas Act, and directed NFEnergía to submit an application for authorization to operate the MFH Facility.[1]

As part of the FERC application process, NFEnergía is acting as FERC's designated non-federal representative for purposes of informal consultation under Section 7 of the Endangered Species Act in accordance with FERC application requirements (18 Code of Federal Regulations § 380.13(b)), as verified by FERC in an email to National Oceanic and Atmospheric Administration ("NOAA") Fisheries dated July 16, 2021. Environmental Resources Management ("ERM") is assisting NFEnergía with various environmental aspects of this effort, including agency consultations and preparation of the FERC application. On August 2, 2021, ERM requested the initiation of informal consultation with NOAA Fisheries Protected Resources Division Caribbean Ecological Services Field Office under Section 7 of the Endangered Species Act for federally listed species under NOAA Fisheries jurisdiction. NOAA Fisheries provided a list of potential impacts by species group on August 3, 2021.

Based on the information provided by NOAA Fisheries and additional resources, NFEnergía has analyzed the potential impacts and proposed mitigation measures for the federally listed species that could occur in the action area. NFEnergía requests that NOAA Fisheries concur with or comment otherwise on the resulting effects determinations for federally listed species discussed in this letter. This will ensure that NFEnergía can provide FERC with the information necessary for an accurate and thorough assessment of the effects of the proposed Project on federally listed species under NOAA Fisheries jurisdiction. NFEnergía is also consulting with the U.S. Fish and Wildlife Service ("USFWS") for species under that agency's jurisdiction.

Federally Listed Species

ERM reviewed the NOAA Fisheries Southeast Region Protected Resources Division website to identify federally listed species and designated critical habitat ("DCH") under NOAA Fisheries jurisdiction with the potential to occur in the action area (NOAA Fisheries, 2021b,c). Seven corals, four mammals, four fish, and four reptiles are included on the NOAA Fisheries list for Puerto Rico, along with DCH for two corals and the four sea turtles (see Table 1). In addition, there are two candidate species that could occur in the action area (see Table 1) (NOAA Fisheries, 2021a). A desktop assessment for these species is provided in the following text. The assessment is based on information provided by NOAA Fisheries and other resources as cited. Species-specific surveys were not conducted.

[1] See FERC Docket No. CP20-466-000.

Table 1

Federally Listed, Proposed, or Candidate Species and Federally Designated or Proposed Critical Habitat Under NOAA Fisheries Jurisdiction Potentially Occurring in the Action Area

Species/Common Name ***Scientific Name***	**Federal Status**	**Relevant Operational Component**	**DCH Occurrence and Proximity to Project Area?**
Corals			
Boulder star coral *Orbicella franksi*	Threatened	Shuttle vessels	None designated
Elkhorn coral *Acropora palmata*	Threatened	Shuttle vessels	Occurs in coastal waters of Puerto Rico in the action area [a]
Lobed star coral *Orbicella annularis*	Threatened	Shuttle vessels	None designated
Mountainous star coral *Orbicella faveolata*	Threatened	Shuttle vessels	None designated
Pillar coral *Dendrogyra cylindrus*	Threatened	Shuttle vessels	None designated
Rough cactus coral *Mycetophyllia ferox*	Threatened	Shuttle vessels	None designated
Staghorn coral *Acropora cervicornis*	Threatened	Shuttle vessels	Occurs in coastal waters of Puerto Rico in the action area [a]
Mammals			
Fin whale (*Balaenoptera physalus)*	Endangered	Shuttle vessels	None designated
Sei whale (*Balaenoptera borealis*)	Endangered	Shuttle vessels	None designated
Sperm whale (*Physeter microcephalus*)	Endangered	Shuttle vessels	None designated
Blue whale (*Balaenoptera musculus*)	Endangered	Shuttle vessels	None designated
Invertebrates			
Queen conch (*Strombus gigas*)	Candidate [b]	Shuttle vessels	None designated
Fish			
Giant manta ray (*Manta birostris*)	Threatened	Shuttle vessels and FSU	None designated
Shortfin mako shark (*Isurus oxyrinchus*)	Candidate [b]	Shuttle vessels	None designated
Nassau grouper *(Epinephelus striatus)*	Threatened	Shuttle vessels	None designated
Oceanic whitetip shark (*Carcharhinus longimanus*)	Threatened	Shuttle vessels	None designated
Scalloped hammerhead shark *(Sphyrna lewini)*	Threatened	Shuttle vessels	None designated
Sea Turtles			
Green sea turtle (*Chelonia mydas*)	Threatened	Shuttle vessels and FSU	Nearest DCH about 45 miles southeast in coastal waters off Culebra Island [c]

Table 1

Federally Listed, Proposed, or Candidate Species and Federally Designated or Proposed Critical Habitat Under NOAA Fisheries Jurisdiction Potentially Occurring in the Action Area

Species/Common Name ***Scientific Name***	**Federal Status**	**Relevant Operational Component**	**DCH Occurrence and Proximity to Project Area?**
Hawksbill sea turtle (*Eretmochelys imbricate*)	Endangered	Shuttle vessels and FSU	Nearest DCH about 4 and 7 miles southeast in coastal waters off Monito and Mona Islands, respectively [c]
Leatherback sea turtle (*Dermochelys coriacea*)	Endangered	Shuttle vessels and FSU	Nearest DCH about 100 miles southeast in waters adjacent to Sandy Point Beach, St. Croix, U.S. Virgin Islands
Loggerhead sea turtle (*Caretta caretta*)	Threatened	Shuttle vessels and FSU	DCH is designated for the Northwest Atlantic Ocean Distinct Population Segment in the Atlantic Ocean and Gulf of Mexico at least 800 miles northwest

Sources: NOAA Fisheries, 2021b,c

[a] Coastal waters for coral DCH in the action area includes the area within about 1 nautical mile off the northern coast of Puerto Rico; DCH does not include San Juan Bay (NOAA Fisheries, 2021b).

[b] Candidate species are those undergoing a status review by NOAA Fisheries to determine whether they warrant listing as endangered or threatened under the ESA (NOAA Fisheries, 2020). While candidate species do not require Section 7 consultation, consideration of the species helps with future consultation should the species be proposed or listed during the life of the proposed action.

[c] Coastal waters for sea turtle DCH is defined as the area within 3 nautical miles of the designated islands (NOAA Fisheries, 2021b).

Corals

Elkhorn coral forms dense thickets in high-energy zones (e.g., water with a lot of wave action). This species is typically found in clear, shallow water with depths from 1 to 15 feet (NOAA Fisheries, 2021e). DCH for the species is located in the waters around Puerto Rico, including the area within about 1 mile off the north coast of Puerto Rico in the action area, but does not include San Juan Harbor (NOAA Fisheries, 2021b). The species was once one of the most abundant corals in the Caribbean, but has declined by about 97 percent since the 1980s due to disease (NOAA Fisheries, 2021e).

Staghorn coral is typically found in clear, shallow water (e.g., depths of 15 to 60 feet) and can be found in a variety of coral reef habitats (NOAA Fisheries, 2021e). Like elkhorn coral, staghorn coral was once one of the most abundant corals in the Caribbean, but has declined by about 97 percent since the 1980s due to disease (NOAA Fisheries, 2021e). DCH for the species is located in the waters around Puerto Rico, including the area within about 1 mile off the north coast of Puerto Rico in the action area, but does not include San Juan Harbor (NOAA Fisheries, 2021b).

Boulder star coral builds large, encrusting plate colonies, which are commonly found in shaded overhangs (USACE, 2018). The species is not commonly found in shallow water (USACE, 2018). There is no DCH for this species (NOAA Fisheries, 2021b).

Mountainous star coral is native to the Caribbean Sea and the Gulf of Mexico (NOAA Fisheries, 2021e). This reef-building coral is typically found in water depths from 3 to 100 feet (USACE, 2018). There is no DCH for this species (NOAA Fisheries, 2021b).

Lobed star coral is found in the western Atlantic Ocean and is the most abundant species of reef-building coral in the Caribbean (NOAA Fisheries, 2021e). Lobed star coral can be found in most reef environments at depths as low as 165 feet; however, it is most common between 22 to 82 feet (USACE, 2018). There is no DCH for this species (NOAA Fisheries, 2021b).

Rough cactus coral is typically found in fore reef environments at depths between 16 to 100 feet, but is most abundantly found at depths of 32 to 65 feet (USACE, 2018). There is no DCH for this species (NOAA Fisheries, 2021b).

Pillar coral is found in the western Atlantic Ocean and the Caribbean Sea (NOAA Fisheries, 2021e) and resembles fingers or clusters of cigars that can reach heights of up to 10 feet (USACE, 2018). This species is typically found on back and fore reef environments at depths of 3 to 82 feet (USACE, 2018). There is no DCH for this species (NOAA Fisheries, 2021b).

Reef-building hard corals, like those listed above, provide habitat for a multitude of marine flora and fauna. Corals get food from photosynthetic algae (i.e., zooxanthellae) that live inside the coral's cells as well as by catching zooplankton via long, stinging tentacles (NOAA National Marine Sanctuaries, 2021). One of the greatest threats to corals is the warming of the oceans from climate change. When the water is too warm, corals will expel the zooxanthellae, which causes coral bleaching. While this does not kill the coral, it does stress the species and can increase the chances of mortality (NOAA National Ocean Service, 2021). In addition to coral bleaching, increased absorption of carbon dioxide from the atmosphere into the ocean is reducing the pH of seawater in a process known as ocean acidification, which reduces calcification rates in reef-building and reef-associated organisms (NOAA National Ocean Service, 2021).

Suitable habitat for the corals listed above, along with the DCH, could occur adjacent to the action area in the Atlantic Ocean near the entrance to San Juan Bay. The National Coast Condition Report IV (Virginia et al., 2012) lists the benthic index derived from sampling stations within San Juan Bay as having a consistently low score. The benthic species community is comprised of a combination of sea grasses, macro-algae, invertebrates, sponges, and corals. The hardbottom habitat essential for coral is primarily restricted to the entrance channel of San Juan Bay (USACE, 2018). Within the bay, surrogate substrates can be found in the form of rocks, pilings, docks, and bulkheads. These can host a variety of encrusting species, including corals in the genera *Leptogorgia* and *Briareum* (USACE, 2018). The seven listed species of scleractinian corals occur along the northern coastline of Puerto Rico, none of which occur near the MFH Facility. No corals were observed within the project footprint at the MFH Facility (USACE, 2018).

The shuttle vessels would cross DCH for elkhorn and staghorn corals within 1 mile of the north coast of Puerto Rico in the approach to San Juan Bay; the rest of the shuttle vessel route in the Atlantic Ocean would occur greater than 1 mile from shore, outside of DCH (see Attachment A). The shuttle vessel routes would occur within established, well-traveled shipping lanes. As such, suitable habitat within the DCH area is not likely to occur within the shuttle vessel route, which is maintained by the U.S. Coast Guard ("USCG") and Port Authority at a 40-foot depth, but could occur in the adjacent area along with suitable habitat for other federally listed corals based on depths in the area, which increase to 100 feet about 0.5 mile from shore (NOAA, n.d.). The depths along the rest of the vessel route in the Atlantic Ocean out to the EEZ generally range between about 3,000 and 10,000 feet (NOAA, n.d.; Office of Coast Survey, 2021).

Approximately 120 shuttle vessels will visit the FSU annually, averaging about 10 round trips per month. This represents about a 4.5-percent increase in vessel traffic coming into San Juan Bay. This increase is anticipated to be partially offset or minimized by a decrease in ship traffic transporting other fuels (USCG, 2018). A direct impact on corals could include an accidental grounding of a shuttle vessel at the approach and entrance to San Juan Bay, which could have long-term impacts due to coral damage or from the release of fuel or other hazardous substances (also see the discussion of incidental spills below). Groundings in San Juan Bay are fairly uncommon; the USCG Sector San Juan reported two groundings in the Port of San Juan between 2008 and 2018 (USCG, 2018). Impacts from shuttle vessel groundings are unlikely based on the vessels using only established shipping lanes, as well as the implementation of established USCG and San Juan Port Control safety protocols for commercial vessels traveling in San Juan Bay (USCG, 2018). Therefore, impacts from a shuttle vessel grounding are considered discountable.

In general, marine vessels can affect aquatic habitat through the release of ship ballast water. Ballast water can have different temperature, oxygen, and salinity levels than receiving waters, or may contain exotic invasive aquatic species and diseases ("invasive species"), particularly ballast water from vessels of foreign origination. The release of ballast water with different temperature, oxygen, and salinity levels can alter aquatic habitat conditions within the immediate vicinity of the discharge point, although the effects would generally be temporary as the water is mixed, particularly in large bodies of water. The introduction of invasive species can have longer term effects on coral habitat such as by permanently altering the food chain or infecting coral with diseases such as stony coral tissue loss disease. The latter is affecting over 20 species of hard corals in the Caribbean, including regions where the shuttle vessels may travel for LNG (The Nature Conservancy, 2021; Atlantic and Gulf Rapid Reef Assessment, 2021). It is not yet reported as occurring in Puerto Rico (Atlantic and Gulf Rapid Reef Assessment, 2021).

No ballast water exchanges will take place where federally listed coral species and coral DCH are likely to occur at the approach and entrance to San Juan Bay. Ballast water intake and withdrawal at the MFH Facility would take place about 4 miles from suitable habitat near the entrance to the bay. In addition, under normal operating conditions, ballast water will be taken into the shuttle vessels during LNG off-loading at the MFH Facility rather than discharged. To the extent there is potential for the shuttle vessels to discharge ballast water, they would exchange ballast water sourced from distant ports and waters at least 200 nautical miles from the nearest land in water at least 656 feet (200 meters) in depth where possible. If this is not possible, they would do the exchange as far from the nearest land as feasible and in all cases, at least 50 nautical miles from the nearest land or in areas designated by the Port state. The stationary FSU will typically use water from San Juan Bay for ballast water exchange and, in the event it has ballast water sourced from distant ports or waters, would implement measures similar to those discussed above with respect to the shuttle vessels. Therefore, no ballast water likely to contain invasive species will be discharged within the waters of San Juan Bay or near coastal areas.

In addition, the tidal flow of the harbor and ships moving into and out of the FSU berthing area will displace any FSU ballast water released into San Juan Bay and circulate it around and out of the berthing area, diluting any effects from altered oxygen, temperature, or salinity levels. Furthermore, any temperature difference between ballast water and the receiving water would likely be small because the ballast water is stored in the ship's hull below the waterline. The small volume of discharged ballast water from the FSU (about 0.74 million gallons) relative to the volume and size of the bay make impacts to habitat of the federally listed species 4 miles away unlikely.

The potential for spreading invasive species elsewhere will be minimized because ballast water discharges from vessels in transit will be managed under ballast water management plans that comply with ballast water regulations and guidelines from the International Maritime Organization ("IMO") International Convention for the Prevention of Pollution from Ships ("MARPOL") (i.e., Regulation B-1 of the 2004 "International Convention for the Control and Management of Ships' Ballast Water and Sediments" and Marine Environment Protection Committee Resolutions 124[53], 126[53], and 127[53]; the 2018 federal Vessel Incidental Discharge Act ["VIDA"] [part of Public Law 115-282] along with the Environmental Protection Agency's 2013 Vessel General Permit under the National Pollutant Discharge Elimination System, and USCG regulations for vessels in commerce [per 33 CFR § 151.2030 and 151.2050]). The FSU and shuttle vessels will also be equipped with a Marine Growth Prevention System for control of macrofouling organisms, which will use a zinc-aluminum anode array to prevent fouling of the seawater intake and ballast water systems.

There would still be some risk of invasive species being transported on the hull of the shuttle vessels. Shuttle vessels will operate in compliance with 33 CFR § 151.2050, which would reduce this risk by requiring the removal of fouling organisms from a vessel's hull, piping, and tanks on a regular basis and disposal of any removed substances in accordance with local, state, and federal regulations. Therefore, impacts from ballast water and vessel transport of invasive species on federally listed coral species are unlikely to occur and are discountable.

Incidental spills of hazardous materials such as fuel from shuttle vessels could occur in suitable coral habitat at the approach and entrance to San Juan Bay, which would cause a localized, temporary reduction in water quality and potentially harm coral in shallow water. However, the risk of an incidental spill will be avoided or minimized by adherence to conditions of MARPOL and USCG standards for vessels in commerce, restricting the location or method of refueling and storage facilities, and requiring cleanup in the event of a spill or leak. In addition, the shuttle vessels are fitted with an array of LNG cargo monitoring and control systems in compliance with IMO conventions and industry standards that automatically monitor for leaks of LNG (USCG, 2018). Any release of LNG, in the unlikely event that any were to come into contact with the water, would have a negligible impact on coral habitat because LNG would immediately vaporize out of the water. Therefore, intermittent and minor impacts from an incidental spill of a hazardous substance would be insignificant.

The FSU and shuttle vessels will also adhere to a Garbage Management Plan. The revised IMO MARPOL Annex V with an entry into force date of January 1, 2013 limits the discharge of waste into the sea unless explicitly permitted under the Annex, which generally includes items such as food wastes, identified cleaning agents and additives, and cargo residues entrained in wash water that are not harmful to the marine environment. Based on adherence to the MARPOL standards, intermittent and minor impacts on corals from any release of permitted waste into San Juan Bay and the Atlantic Ocean would be insignificant.

Based on the analysis above, the operation of the MFH Facility *may affect, but is not likely to adversely affect* federally listed coral species and elkhorn and staghorn coral DCH.

Whales

The fin whale is the second largest whale species on earth and is found throughout the world's oceans. The species is typically found in deep, offshore waters in temperate to polar latitudes. Fin whales are less common in warm, tropical waters; however, they are known to

migrate to warmer waters for the breeding season. This baleen whale feeds on krill, small schooling fish, and squid (NOAA Fisheries, 2021e). There is no DCH for this species (NOAA Fisheries, 2021b).

The sperm whale is the largest of the toothed whales and is found in all deep oceans throughout the world. The distribution of the species is dependent on their food source and suitable conditions for breeding; however, females and young whales are thought to stay in tropical waters year-round. The sperm whale diet includes deepwater squid, sharks, skates, and fish (NOAA Fisheries, 2021e). There is no DCH for this species (NOAA Fisheries, 2021b).

The sei whale occurs in subtropical, temperate, and subpolar waters of the Atlantic, Indian, and Pacific Oceans. Movement patters of the species is not well known, but the whale is typically observed in deep waters far from the coastline. This baleen whale feeds on copepods and krill (NOAA Fisheries, 2021e). There is no DCH for this species (NOAA Fisheries, 2021b).

The blue whale is the largest animal on Earth. The species can be found in all oceans except the Arctic. Blue whales typically migrate seasonally between summer feeding grounds and winter breeding grounds; however, not all individuals will migrate. This baleen whale feeds almost exclusively on krill (NOAA Fisheries, 2021e). There is no DCH for this species (NOAA Fisheries, 2021b).

Whales could collide with or be hit by shuttle vessels in the Atlantic Ocean, resulting in injury or mortality. The risk of collision with shuttle vessels is reduced because the shuttle vessels will use established, well-traveled shipping lanes. To further minimize potential collisions between vessel traffic and protected marine species, the Southeast Region of NOAA Fisheries has developed *Vessel Strike Avoidance Measures* (NOAA Fisheries, 2021f) (see Attachment B). These are standard measures to be implemented to reduce the risk associated with vessel strikes or disturbance of marine species. Measures include, but are not limited to, informing personnel of the protected species that could be present, maintaining a watch for protected species, maintaining a buffer zone, and reducing vessel speeds if species are sighted. NFEnergía will provide the *Vessel Strike Avoidance Measures* to shuttle vessel captains, who will implement the measures identified in the document. With implementation of these measures and the use of established shipping lanes, potential collisions between shuttle vessels and whales will be unlikely to occur and are therefore discountable.

As discussed above for corals, ballast water exchanges can introduce invasive species or cause changes to ambient water temperature and salinity. Infrequent ballast water exchanges by the shuttle vessels could take place in whale habitat in the Atlantic Ocean, which would cause a temporary, localized effect on whale habitat. Adherence to ballast water management plans in compliance with applicable international and national regulations and standards, as described above for corals, would reduce potential impacts on whale habitat. Based on the small area affected relative to the surrounding habitat and adherence to regulations and standards, impacts on whales from ballast water exchange would be insignificant.

Incidental spills of hazardous substances such as fuel or ship waste from shuttle vessels in the Atlantic Ocean would cause a localized, temporary reduction in water quality and could harm whales. However, whales are highly mobile and could be expected to move away from affected water. The release of LNG, in the unlikely event that any were to come into contact with the water due to the use of LNG cargo monitoring and control systems, as described above for corals, would have a negligible impact on whales because LNG would immediately vaporize out

of the water. In addition, adherence to MARPOL and USCG standards for vessels in commerce, including a Garbage Management Plan, will reduce the risk presented by a potential release of hazardous substances and waste from shuttle vessels, as discussed for corals. Consequently, impacts on whales from an incidental spill of a hazardous substance or release of waste would be insignificant.

Other impacts on whales could include vessel noise and wave disturbance consistent with disturbance from existing ship traffic in established shipping lanes. Given existing levels of disturbance, these impacts would be insignificant.

Based on the analysis above, operation of the MFH Facility *may affect, but is not likely to adversely* affect the fin, sperm, sei, and blue whales.

Fish

The threatened Nassau grouper is a reef fish associated with hardbottom habitat such as reefs, rocks, and ledges, which could occur in the action area in the Atlantic Ocean near the approach and entrance to San Juan Bay, as noted above for corals. The Nassau grouper is a pelagic species that does not typically spend time at the surface of the water; rather, the larger fish tend to occupy high-relief coral reefs or rocks in clear water (NOAA Fisheries, 2021e). The species is found throughout the tropical and subtropical waters of the western North Atlantic Ocean. Adult fish feed on smaller fish and juveniles eat a variety of fish and invertebrates such as shrimp and crabs (NOAA Fisheries, 2021e). Threats to the species include overfishing.

The threatened giant manta ray is commonly found offshore; however, it is also found in coastal areas, bays, and intercoastal waterways, as well as estuarine waters near oceanic inlets, with the use of these waters as potential nursery grounds (NOAA Fisheries, 2021e). Giant manta ray are noted to have been observed infrequently in the action area near the entrance to San Juan Bay near channel marker buoys (USACE, 2020). The manta ray is a filter feeder and its diet consists mainly of zooplankton. Threats to the giant manta ray include over fishing, accidental bycatch, and harvest for international trade.

The threatened oceanic whitetip shark is found offshore in the open ocean in tropical and subtropical waters, generally in water depths greater than about 500 to 600 feet (USACE, 2020; NOAA Fisheries, 2021e). Suitable habitat could therefore occur in the offshore portion of the shuttle vessel routes in the Atlantic Ocean. The primary threat to the whitetip shark is incidental bycatch in commercial fisheries.

Scalloped hammerhead shark is a globally occurring species found in the waters surrounding Puerto Rico (NOAA Fisheries, 2021e). The species may occur in the action area up to at least 9 nautical miles from the Puerto Rico shore based on recreational fishery data (USACE, 2020). The species can be found in both intertidal and pelagic waters. Threats to the species include commercial fishing for the shark fin trade.

The shortfin mako shark is a candidate species under review by NOAA Fisheries to determine its status under the ESA (NOAA Fisheries, 2021a). The species is highly migratory and is found in all temperate and tropical ocean waters, including the Caribbean Sea (NOAA Fisheries, 2021c). The shark spends the majority of its time in the upper portion of the water column (NOAA Fisheries, 2021c). The species may occur in the action area within the shuttle

vessel transit routes in the Atlantic Ocean. The greatest threat to the shortfin mako shark is overharvesting.

Shuttle vessels carrying LNG will travel through the Atlantic Ocean and San Juan Bay to the FSU, raising the potential for collisions between shuttle vessels and sharks and rays, primarily in the Atlantic Ocean. The potential for collisions is low because the shuttle vessels will use established, well-traveled shipping lanes, and because the species are highly mobile and would likely avoid the noise and turbulence associated with the vessels. In addition, the oceanic whitetip shark and Nassau grouper would generally occur at depths that would not be disturbed by the shuttle vessels. Further, suitable habitat for Nassau grouper would primarily occur at the entrance to San Juan Bay where vessels would be slowing down to enter the harbor. From the Atlantic Ocean to the pilot station, shuttle vessels will slow to about 7 to 8 knots (8 to 9 miles per hour [mph]), travel at about the same speed across the breakwater, and then travel at "dead slow ahead" (6.5 knots or 7.5 mph) through San Juan Bay. Collisions with species that could occur in this area would also be less likely given the reduced vessel speeds. To further minimize the risk of potential collisions between vessel traffic and federally listed fish species, NFEnergía will provide the *Vessel Strike Avoidance Measures* (NOAA Fisheries, 2021f) (see Attachment B) document to LNG carrier captains, as discussed for whales above. With implementation of the *Vessel Strike Avoidance Measures* and based on the information above, potential collisions between marine vessels and federally listed fish would be unlikely to occur and are therefore discountable.

As discussed above for corals, ballast water exchanges can introduce invasive species or cause changes to ambient water temperature and salinity. Ballast water exchanges by the shuttle vessels could take place in shark and ray habitat in the Atlantic Ocean and by the FSU in San Juan Bay. Adherence to ballast water management plans in compliance with applicable international and national regulations and standards, as described above for corals, would reduce potential impacts on fish. Ballast water discharges by the FSU would not be expected to have a measurable effect on federally listed fish species in San Juan Bay because the FSU would use bay water or implement measures similar to those for shuttle vessels in exchanging ballast water offshore in the event the FSU has ballast water sourced from distant ports or waters, as discussed above for corals.

Ballast water intakes by the shuttle vessels and FSU could result in entrainment or impingement against the intake screens of small aquatic organisms such as fish eggs, plankton, and juvenile fish, potentially affecting prey species of listed species. Given the abundant adjacent habitat in San Juan Harbor and the Atlantic Ocean, the intermittent entrainment or impingement of prey species during MFH Facility operation would have an insignificant impact on food sources for federally listed species. In conclusion, impacts on federally listed fish species from ballast water exchange would be insignificant.

Incidental spills of hazardous substances such as fuel or ship waste from shuttle vessels into the Atlantic Ocean or San Juan Bay, or from the FSU and MFH Facility into San Juan Bay, would cause a localized, temporary reduction in water quality and could harm fish. However, fish are highly mobile and could be expected to move away from affected water. The release of LNG, in the unlikely event that any were to come into contact with the water due to the use of LNG cargo monitoring and control systems, as described above for corals, would have a negligible impact on fish because LNG would immediately vaporize out of the water. In addition, adherence to MARPOL and USCG standards for vessels in commerce, including a Garbage Management Plan, will reduce the risk presented by a potential release of hazardous substances and waste on

fish. Waste from the FSU will be pumped or disposed of onshore at appropriate facilities as much as possible. Grey water from the FSU will be pumped to shore for disposal and not discharged to the bay. At the MFH Facility, a spill containment system is installed and operating that routes spills away from process equipment and other exit points and gathers spilled material into an impoundment sump. To reduce the risk and severity of impacts should a spill occur and reach the waters of San Juan Bay, the MFH Facility will adhere to its Emergency Response Plan ("ERP"). The ERP establishes the procedures for responding to emergencies (e.g., spills) that may occur at the MFH Facility. Based on the above measures, impacts on fish from an incidental spill of a hazardous substance or release of waste would be insignificant.

Other impacts on fish could include vessel noise and wave disturbance consistent with disturbance from existing ship traffic in established shipping lanes. Given existing levels of disturbance, these impacts would be insignificant.

MFH Facility operations would not result in any reduction in federally listed fish species foraging habitat because there would be no direct disturbance to habitat through anchoring or other activity in marine habitat. The FSU is semi-permanently moored to the MFH Facility dock, and the shuttle vessels temporarily moor to the FSU during LNG offloading. Past construction at the site included the replacement of existing piles in the water to support the overwater portion of the dock, which will continue to be used. In past consultation between the USACE and NOAA Fisheries, NOAA Fisheries determined that pile installation and other past construction activities for the wharf improvements at the MFH Facility were *not likely to adversely affect* federally listed fish species (NOAA Fisheries, 2018).

Based on the analysis above, operation of the MFH Facility *may affect, but is not likely to adversely affect* the oceanic whitetip shark, giant manta ray, Nassau grouper, and scalloped hammerhead shark. In addition, should the shortfin mako shark become proposed for listing under the ESA, operations are not likely to jeopardize the continued existence of the species. If listed, operations *may affect, but are not likely to adversely affect* the shortfin mako shark.

Invertebrates

Queen conch live in sand flats, seagrass beds, and are associated with coral reefs (NOAA Fisheries, 2021d). They occur in about 7 to 13 feet (2 to 4 meters) of water (NOAA Fisheries, 2021d). The species is herbivorous and eats plant and surface algal material. The queen conch is under review by NOAA Fisheries to determine its status under the ESA (NOAA Fisheries, 2021a). The conch is often found in sandy spurs that cut into offshore reefs, and share habitat with reef fish and coral reef resources (CFM Council, n.d.c). Suitable habitat for the queen conch could occur adjacent to the action area in the Atlantic Ocean near the entrance to San Juan Bay. No seagrasses or corals were observed within the project footprint at the MFH Facility (USACE, 2018).

One of the greatest threats to the queen conch is overharvesting; the species is highly sought after for its meat (NOAA Fisheries, 2021d). The conch's biological characteristics (e.g., slow growth, late maturation, limited mobility, occurrence in shallow waters, and tendency to aggregate) make the species particularly vulnerable to overharvest.

Potential impacts on the queen conch as a result of operation of the MFH Facility are similar to those described for coral and fish species above due to shuttle vessel transit through the San Juan Bay and Atlantic Ocean. Potential impacts include disturbance from vessel

groundings, invasive species, ballast water exchange, and incidental releases of hazardous materials and vessel waste. These impacts are considered minor or unlikely to occur, and therefore insignificant or discountable, as described above for coral and fish species. In addition, MFH Facility operations would not result in any reduction in queen conch habitat because there would be no direct disturbance through anchoring or other activity in marine habitat.

Based on the analysis listed above, should the queen conch become proposed for listing under the ESA, operation of the MFH Facility is not likely to jeopardize the continued existence of the species. If listed, operations *may affect, but are not likely to adversely affect* the queen conch.

Sea Turtles

Hawksbill sea turtles are widely distributed throughout the Caribbean Sea and western Atlantic Ocean and could occur in the shuttle vessel routes in the Atlantic Ocean and San Juan Bay. They occur in shallow coastal areas, oceanic islands, rocky areas, and coral reefs (USFWS, 2018a). Critical habitat under NOAA Fisheries jurisdiction has been designated for the hawksbill sea turtle in the coastal waters around Monito and Mona Islands, which are about 44 miles southwest of the Puerto Rican coast. The DCH for the two species extends out to 3 nautical miles from Monito and Mona Islands and occurs 4 and 7 miles southeast of the shuttle vessel route in the Atlantic Ocean, respectively (NOAA Fisheries, 2021b) (see Attachment A).

Leatherback sea turtles are commonly regarded as pelagic (open ocean) animals, but they also forage in coastal waters during breeding and could occur in the shuttle vessel routes in the Atlantic Ocean and San Juan Bay. The leatherback is the most migratory and wide ranging of sea turtle species. It prefers open ocean habitat outside of breeding season (USFWS, 2018b). Critical habitat under NOAA Fisheries jurisdiction has been designated for the leatherback sea turtle around the southwestern end of the island of St. Croix, which is about 65 miles southeast of the coast of Puerto Rico and 100 miles southeast of the action area in the Atlantic Ocean (NOAA Fisheries, 2021b).

Green sea turtles usually frequent shallow water areas where marine grasses and algae are present (NOAA Fisheries, 2021e). Paddle grass, turtle grass, and macro-algae are known to grow at depths of less than 15 feet in San Juan Bay (USACE, 2018), which would provide green sea turtle habitat, and green sea turtles have been reported in the action area based on information from the Puerto Rico Department of Natural and Environmental Resources, Endangered Species Program (2021). Therefore, green sea turtles may be present in the action area in the shuttle vessel routes and near the FSU in San Juan Bay, although no seagrasses were observed within the project footprint at the MFH Facility (USACE, 2018). Critical habitat under NOAA Fisheries jurisdiction has been designated for the green sea turtle around Culebra Island, which is about 18 miles east of the Puerto Rican coast and 45 miles southeast of the action area in the Atlantic Ocean (NOAA Fisheries, 2021b).

Loggerhead sea turtles can be found in the open sea as well as in bays, lagoons, canals, coral reefs, and rocky areas (NOAA Fisheries, 2021e). The species is noted to be extremely rare around Puerto Rico (USACE, 2020). Critical habitat under NOAA Fisheries jurisdiction has been designated for the loggerhead sea turtle Northwest Atlantic Ocean Distinct Population Segment in the Atlantic Ocean off the southeast coast of the United States and in the northern Gulf of Mexico about 800 miles northwest of the action area (NOAA Fisheries, 2021b).

Sea turtles could be encountered by shuttle vessels traveling through the Atlantic Ocean and San Juan Bay, resulting in sea turtle injury or mortality. The risk of collision with shuttle vessels is reduced because the shuttle vessels will use established, well-traveled shipping lanes, and because the bow wave of large vessels pushes water and small objects (such as sea turtles) away from the front of the vessel. Furthermore, shuttle vessels will move relatively slowly while approaching and moving through San Juan Bay, reducing the risk of collisions in this area; from the Atlantic Ocean to the pilot station, shuttle vessels will slow to about 7 to 8 knots (8 to 9 miles per hour [mph]) and will then travel at 6.5 knots or 7.5 mph through San Juan Bay. To further minimize potential collisions between marine vessels and sea turtles, the *Vessel Strike Avoidance Measures* will be given to shuttle vessel captains to be implemented for sea turtles as well as marine mammals (NOAA Fisheries, 2021f) (see Attachment B). With implementation of these measures, potential collisions between marine vessels and sea turtles will be extremely unlikely to occur and are therefore discountable.

As discussed above for corals, ballast water exchanges can introduce invasive species or cause changes to ambient water temperature and salinity. Ballast water exchanges by the shuttle vessels could take place in sea turtle habitat in the Atlantic Ocean and by the FSU in San Juan Bay. Adherence to ballast water management plans in compliance with applicable international and national regulations and standards, as described above for corals, would reduce potential impacts on sea turtles. Ballast water exchanges by the FSU would not be expected to have a measurable effect on sea turtles in San Juan Bay because the FSU would use bay water or implement measures similar to those for shuttle vessels in exchanging ballast water offshore in the event the FSU has ballast water sourced from distant ports or waters, as discussed above for corals. While ballast water intakes by the shuttle vessels and FSU could potentially result in impingement of small organisms against intake screens, such as sea turtle hatchlings, there is no nesting habitat adjacent to San Juan Bay; the closest known sea turtle nesting beach is in Dorado County, about 10 miles west of the MFH Facility. Therefore, sea turtle hatchlings are not expected to occur in San Juan Bay and would not be affected. In conclusion, impacts on sea turtles from ballast water exchange would be insignificant.

Incidental spills of hazardous substances such as fuel or ship waste from shuttle vessels into the Atlantic Ocean or San Juan Bay, or from the FSU and MFH Facility into San Juan Bay, would cause a localized, temporary reduction in water quality and could harm sea turtles. However, sea turtles are highly mobile and could be expected to move away from affected water. The release of LNG, in the unlikely event that any were to come into contact with the water due to the use of LNG cargo monitoring and control systems, as described above for corals, would have a negligible impact on sea turtles because LNG would immediately vaporize out of the water. In addition, adherence to MARPOL and USCG standards for vessels in commerce, including a Garbage Management Plan, will reduce the risk presented by a potential release of hazardous substances and waste on sea turtles. As described above for fish, various measures and plans at the MFH Facility and FSU, including the use of a spill containment system, adherence to an ERP, and FSU waste management practices, would reduce the risk and severity of an incidental spill into San Juan Bay. Based on the above measures, impacts on sea turtles from an incidental spill of a hazardous substance or release of waste would be insignificant.

Other impacts on sea turtles could include vessel noise and wave disturbance consistent with disturbance from existing ship traffic in established shipping lanes. Given existing levels of disturbance, these impacts would be insignificant.

MFH Facility operations would not result in any reduction in sea turtle foraging habitat because there would be no direct disturbance to habitat through anchoring or other activity. The FSU is semi-permanently moored to the MFH Facility dock, and the shuttle vessels temporarily moor to the FSU during LNG offloading. Past construction at the site included the replacement of existing piles in the water to support an overwater portion of the dock, which will continue to be used. In past consultation between the USACE and NOAA Fisheries, NOAA Fisheries determined that pile installation and other past construction activities for the wharf improvements at the MFH Facility were *not likely to adversely affect* federally listed sea turtles (NOAA Fisheries, 2018).

Based on the analysis above, operation of the MFH Facility *may affect, but is not likely to adversely affect* hawksbill, leatherback, green, and loggerhead sea turtles.

Request for Review and Comment

As noted above, NFEnergía is requesting that NOAA Fisheries concurs with or comments otherwise on the effects determinations for federally listed species discussed in this letter. This will ensure that NFEnergía can provide FERC with the information necessary for an accurate and thorough assessment of the proposed activities.

NFEnergía appreciates your comments and looks forward to working with you on the review of the MFH Facility operations. If you have any questions, please contact me at 516-268-7413 or bcmelmurray@newfortressenergy.com, or contact Kara Hempy-Mayer, of ERM, at 612-219-9523 or kara.hempymayer@erm.com.

Sincerely,

Brannen McElmurray
Chief Development Officer
New Fortress Energy

cc: Kara Hempy-Mayer, ERM
Maggie Suter, ERM

Enclosure: Attachment A – Overview Maps
Attachment B – NOAA Fisheries *Vessel Strike Avoidance Measures*

References Cited

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Attachment A

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Map Author: CAL.WILSON
Revised: 08/12/2021 | Scale: 1:1,320,000 when printed at 8.5"x11"
COORDINATE SYSTEM: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 Feet

MFH Facility

Shuttle Vessel Route

Exclusive Economic Zone Boundary

Data Sources

Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 1A

Shuttle Vessel Route Map

San Juan Micro-Fuel Handling Facility

NFEnergía, LLC - San Juan, Puerto Rico

NFEnergia puerto rico

ERM

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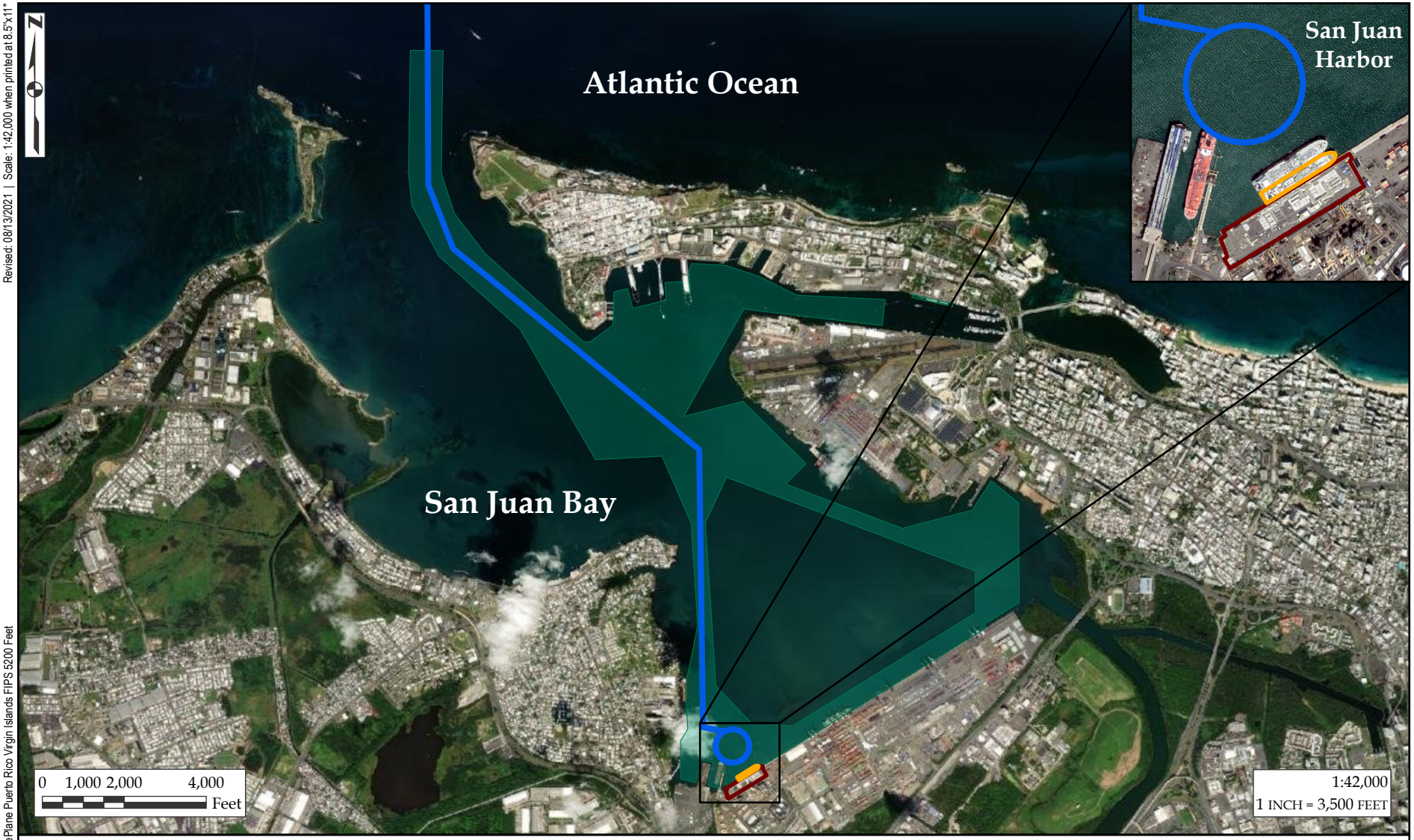
Map Author: CAL.WILSON
Revised: 08/13/2021 | Scale: 1:42,000 when printed at 8.5"x11"
COORDINATE SYSTEM: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 Feet



MFH Facility

Non-Jurisdictional Floating Storage Unit

Vessel Route

Army COE Maintained Coastal Channels & Waterways

Data Sources
Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 1B
Shuttle Vessel Route Map
San Juan Micro-Fuel Handling Facility
NFEnergía, LLC - San Juan, Puerto Rico

NFEnergía puerto rico
ERM

Earthstar Geographics, © 2021 Microsoft Corporation © 2021 Maxar ©CNES (2021) Distribution Airbus DS, Maxar along with The ERM Group
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Attachment B

VESSEL STRIKE AVOIDANCE MEASURES, NOAA FISHERIES SOUTHEAST REGIONAL OFFICE

Background

Vessel strikes can injure or kill species protected under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). NOAA Fisheries Southeast Regional Office (SERO) Protected Resources Division (PRD) recommends implementing the following identification and avoidance measures to reduce the risk of vessel strikes and disturbance from vessels to protected species under our jurisdiction.[1]

Protected Species Sightings

All vessel operators and crews should be informed about the potential presence of species protected under the ESA and the MMPA and any critical habitat in a vessel transit area. All vessels should have personnel onboard responsible for observing for the presence of protected species. All personnel should be advised that there are civil and criminal penalties for harming, harassing, or killing listed species and all marine mammals. To determine which protected species and critical habitat may be found in the transit area, please review the relevant marine mammal and ESA-listed species at Find A Species (https://www.fisheries.noaa.gov/find-species) and any ESA Section 7 consultation documents if applicable.

Vessel Strike Avoidance

The following measures should be taken when they are consistent with safe navigation to avoid causing injury or death of a protected species:

1. Operate at the minimum safe speed when transiting and maintain a vigilant watch for protected species to avoid striking them. Even with a vigilant watch, most marine protected species are extremely difficult to see from a boat or ship, and you cannot rely on detecting them visually and then taking evasive action. The most effective way to avoid vessel strikes is to travel at a slow, safe speed. Whenever possible, assign a designated individual to observe for protected species and limit vessel operation to only daylight hours.

2. Follow deep-water routes (e.g., marked channels) whenever possible.

3. Operate at "Idle/No Wake" speeds in the following circumstances:
    a. while in any project construction areas
    b. while in water depths where the draft of the vessel provides less than four feet of clearance from the bottom, or
    c. in all depths after a protected species has been observed in and has recently departed the area.

[1] Manatees are managed under the jurisdiction of the U.S. Fish and Wildlife Service.

4. When a protected species is sighted, attempt to maintain a distance of 150 feet or greater between the animal and the vessel. Reduce speed and avoid abrupt changes in direction until the animal(s) has left the area.

5. When dolphins are bow- or wake-riding, maintain course and speed as long as it is safe to do so or until the animal(s) leave the vicinity of the vessel.

6. If a whale is sighted in the vessel's path or within 300 feet from the vessel, reduce speed and shift the engine to neutral. Do not engage the engines until the animals are clear of the area. *Please see below for additional requirements for North Atlantic right whales.*

7. If a whale is sighted farther than 300 feet from the vessel, maintain a distance of 300 feet or greater between the whale and the vessel and reduce speed to 10 knots or less. *Please see below for additional requirements for North Atlantic right whales.*

Injured or Dead Protected Species Reporting
Vessel crews should report sightings of any injured or dead protected species immediately regardless of whether the injury or death is caused by your vessel. Please see How to Report a Stranded or Injured Marine Animal (https://www.fisheries.noaa.gov/report) for the most up to date information for reporting injured or dead protected species.

If the injury or death is caused by your vessel, also report the interaction to NOAA Fisheries SERO PRD at takereport.nmfsser@noaa.gov. Please include the species involved, the circumstances of the interaction, the fate and disposition of the animal involved, photos (if available), and contact information for the person who can provide additional details if requested. Please include the project's Environmental Consultation Organizer (ECO) number and project title in the subject line of email reports if a consultation has been completed.

Reporting Violations
To report any suspected ESA or MMPA violation, call the NOAA Fisheries Enforcement Hotline. This hotline is available 24 hours a day, 7 days week for anyone in the United States.

NOAA Fisheries Enforcement Hotline: (800) 853-1964

Additional Transit and Reporting Requirements for North Atlantic Right Whales

1. Federal regulation prohibits approaching or remaining within 500 yards of a North Atlantic right whale (50 CFR 224.103 (c)). All whales sighted within North Atlantic right whale critical habitat should be assumed to be right whales. Please be aware and follow restrictions for all Seasonal Management Areas along the U.S. east coast. These areas have vessel speed restrictions to reduce vessel strikes risks to migrating or feeding whales. More information can be found at Reducing Vessel Strikes to North Atlantic Right Whales (https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales).

2. Ships greater than 300 gross tons entering the WHALESOUTH reporting area are required to report to a shore-based station. For more information on reporting procedures consult 33 CFR Part 169, the Coast Pilot, or at Reducing Vessel Strikes to North Atlantic

Right Whales (https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales).

3. From November through April, vessels approaching/departing Florida ports of Jacksonville and Fernandina Beach as well as Brunswick Harbor, Georgia are STRONGLY RECOMMENDED to use Two-Way Routes displayed on nautical charts. More information on Compliance with the Right Whale Ship Strike Reduction Rule can be found at (https://media.fisheries.noaa.gov/2021-06/compliance_guide_for_right_whale_ship_strike_reduction.pdf)

4. Mariners shall check with various communication media for general information regarding avoiding vessel strikes and specific information regarding North Atlantic right whale sighting locations. These include NOAA weather radio, U.S. Coast Guard Broadcast to Mariners, Local Notice to Mariners, and NAVTEX. Commercial mariners calling on United States ports should view the most recent version of the NOAA/USCG produced training CD entitled "A Prudent Mariner's Guide to Right Whale Protection" (contact the NOAA Fisheries SERO, Protected Resources Division for more information regarding the CD).

5. Injured, dead, or entangled right whales should be immediately reported to the U.S. Coast Guard via VHF Channel 16 and the NOAA Fisheries Southeast Marine Mammal Stranding Hotline at (877) WHALE HELP (877-942-5343).

For additional information, please contact NOAA Fisheries SERO PRD at:
NOAA Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701
Visit us on the web at Protected Marine Life in the Southeast
(https://www.fisheries.noaa.gov/region/southeast#protected-marine-life)

Revised: May 2021

Julia Joy

From: Kay Davy - NOAA Federal <kay.davy@noaa.gov>
Sent: Friday, September 10, 2021 10:16 AM
To: Julia Joy
Cc: Kara Hempy-Mayer; Maggie Suter
Subject: Re: NFEnergía LLC San Juan Micro-Fuel Handling Facility Operations - Impact Assessment for Federally Listed Species

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Julia,

Thank you for the information. I will review it and get back to you if I have any questions.

Please note that I am 100% teleworking during COVID, but permanently affiliated with our regional office in St. Petersburg (and not located in Puerto Rico).
That address is:

NOAA Fisheries
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Thanks,
Kay

From: Kara Hempy-Mayer [mailto:kara.hempymayer@erm.com]
Sent: Friday, June 11, 2021 5:33 PM
To: Hiram Cruz Santiago <hcruz@drna.pr.gov>
Cc: Julia Joy <Julia.Joy@erm.com>
Subject: Puerto Rico Natural Heritage Program data

Greetings Mr. Cruz,

I'm working on the environmental review for the operation of an LNG import facility (the MFH Facility or Project) in the Port of San Juan. We'd like to request any information you have on known locations of state and federally listed or proposed species in the Project area, either through the Natural Heritage Database or other resources. This information will assist us in our assessment of potential Project impacts to protected species in compliance with the Puerto Rico Regulation to Govern the Threatened and Endangered Species (Regulation No. 6766) and regulation for the protection of corals under Law 147.

Please let me know what the process is for requesting data from the Natural Heritage Database or other resources, whether there are any fees, and what details are needed.

Feel free to email or call me at 612-219-9523.

Thank you,
Kara

Tue 6/15/2021 6:59 AM
Hiram Cruz Santiago <hcruz@drna.pr.gov>
RE: Puerto Rico Natural Heritage Program data
To Kara Hempy-Mayer
You replied to this message on 6/15/2021 10:30 AM.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kara Hempy-Mayer,

Good morning! You must send a document that serves as a reference that indicates the location and type of activity proposed. This will allow us to be able to indicate to them which species or possible situations we suggest they include in their evaluation. Please send information to Dr. Nilda Jiménez.

Nilda M. Jiménez Marrero, PhD
Coordinator
Endangered Species Program
njimenez@drna.pr.gov

Any questions please communicate.

Sincerely,

Hiram Cruz Santiago
Educación y Relaciones con la Comunidad
DRNA
Tel: 787 999 2200 ext.5416

Fri 6/11/2021 4:33 PM

Kara Hempy-Mayer

Puerto Rico Natural Heritage Program data

To hcruz@drna.pr.gov

Cc Julia Joy

Greetings Mr. Cruz,

I'm working on the environmental review for the operation of an LNG import facility (the MFH Facility or Project) in the Port of San Juan. We'd like to request any information you have on known locations of state and federally listed or proposed species in the Project area, either through the Natural Heritage Database or other resources. This information will assist us in our assessment of potential Project impacts to protected species in compliance with the Puerto Rico Regulation to Govern the Threatened and Endangered Species (Regulation No. 6766) and regulation for the protection of corals under Law 147.

Please let me know what the process is for requesting data from the Natural Heritage Database or other resources, whether there are any fees, and what details are needed.

Feel free to email or call me at 612-219-9523.

Thank you,
Kara

Tue 6/15/2021 6:59 AM

Hiram Cruz Santiago <hcruz@drna.pr.gov>

RE: Puerto Rico Natural Heritage Program data

To Kara Hempy-Mayer

You replied to this message on 6/15/2021 10:30 AM.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kara Hempy-Mayer,

Good morning! You must send a document that serves as a reference that indicates the location and type of activity proposed. This will allow us to be able to indicate to them which species or possible situations we suggest they include in their evaluation. Please send information to Dr. Nilda Jiménez.

Nilda M. Jiménez Marrero, PhD
Coordinator
Endangered Species Program
njimenez@drna.pr.gov

Any questions please communicate.

Sincerely,

Hiram Cruz Santiago
Educación y Relaciones con la Comunidad
DRNA
Tel: 787 999 2200 ext.5416

NFEnergía
puerto rico

June 30, 2021

Nilda M. Jiménez Marrero, PhD
Endangered Species Program Coordinator
Department of Natural and Environmental Resources
San José Industrial Park
1375 Ave Ponce de León
San Juan, PR 00926

Re: NFEnergía LLC San Juan Micro-Fuel Handling Facility

Dear Dr. Jiménez:

NFEnergía LLC ("NFE") owns and operates a liquefied natural gas ("LNG") import and regasification facility ("Micro-Fuel Handling Facility" or "MFH Facility") in the Port of San Juan, Puerto Rico. The MFH Facility imports and distributes natural gas to providers in Puerto Rico. A portion of the LNG is distributed via ship-to-truck trans-loading operations, while the remaining LNG is regasified and provided to the adjacent Puerto Rico Electric Power Authority's ("PREPA") San Juan Power Plant through a direct natural gas vapor connection. The LNG will be imported via LNG carriers ("shuttle vessels") traveling through the Atlantic Ocean and San Juan Bay. At the Port of San Juan, the LNG is transferred to a floating storage unit ("FSU"), an LNG storage vessel semi-permanently moored alongside the MFH Facility. The FSU and MFH Facility locations, along with the shuttle vessel routes, are shown on the attached figures.

The MFH Facility is paved and includes a control building, a cryogenic LNG transfer header, LNG transfer equipment, a truck loading facility, vaporization equipment, and two 463-horsepower emergency diesel generators. The site is enclosed by a fence. NFE proposes to continue year-round operations of the MFH Facility. The in-water activities during operation are vessel traffic in San Juan Harbor and the Atlantic Ocean, as well as the loading and transfer of LNG at the FSU and MFH Facility. Shuttle vessels moor directly to the FSU, which is moored to Wharf B; there is no anchoring at the MFH Facility.

NFE uses the INEOS Independence as the FSU. The INEOS Independence has a cargo capacity of 27,500 cubic meters. Two LNG carriers serve as the shuttle vessels to the FSU. The Coral Encanto serves as the main vessel, and has a cargo capacity of 30,000 cubic meters. The Coral Anthelia may also be used as a shuttle vessel, and has a cargo capacity of 6,500 cubic meters.

NFE began constructing the MFH Facility in 2018 and commenced commercial operations in 2020. On March 19, 2021, the Federal Energy Regulatory Commission ("FERC" or "Commission") issued an Order on Show Cause determining that operation of the MFH Facility is subject to the Commission's jurisdiction under Section 3 of the Natural Gas Act, and directed NFE to submit an application for authorization to operate the MFH Facility.

As part of the FERC application process, NFE would like to request technical assistance from your office in identifying any state-listed species that may be affected by the MFH Facility.

Specifically, the purpose of this letter is to request a list of species designated by Puerto Rico as endangered or vulnerable under Regulation No. 6766, along with any associated critical habitat, that may be affected by continued MFH Facility operations. We also request any information you have on the locations of documented occurrences of those species and associated critical habitat in the identified area (see the attached figures), as well as locations of documented occurrences of federally listed species. NFE is also consulting with the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries for federally listed species. Environmental Resources Management (ERM) is assisting NFE with various environmental aspects of this effort, including agency consultations and preparation of the FERC application.

We look forward to your response and working with you on the review of the MFH Facility operations. If you have any questions, please contact me at 516-268-7413 or bcmel murray@newfortressenergy.com, or Kara Hempy-Mayer, of ERM, at 612-219-9523 or kara.hempymayer@erm.com.

Sincerely,

Brannen McElmurray
Chief Development Officer
New Fortress Energy

cc: Kara Hempy-Mayer, ERM
Maggie Suter, ERM

Enclosures: Attachment A: Overview Maps

Attachment A
Overview Maps

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 | Project_Overview_Small_Scale
Map Author: CAL.WILSON
Revised: 06/22/2021 | Scale: 1:1,267,200 when printed at 8.5"x11"
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MFH Facility

Shuttle Vessel Route

Exclusive Economic Zone Boundary

Data Sources
Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 1-A
Overview Map
San Juan Micro-Fuel Handling Facility
NFEnergía, LLC San Juan, Puerto Rico

NFEnergía puerto rico
ERM

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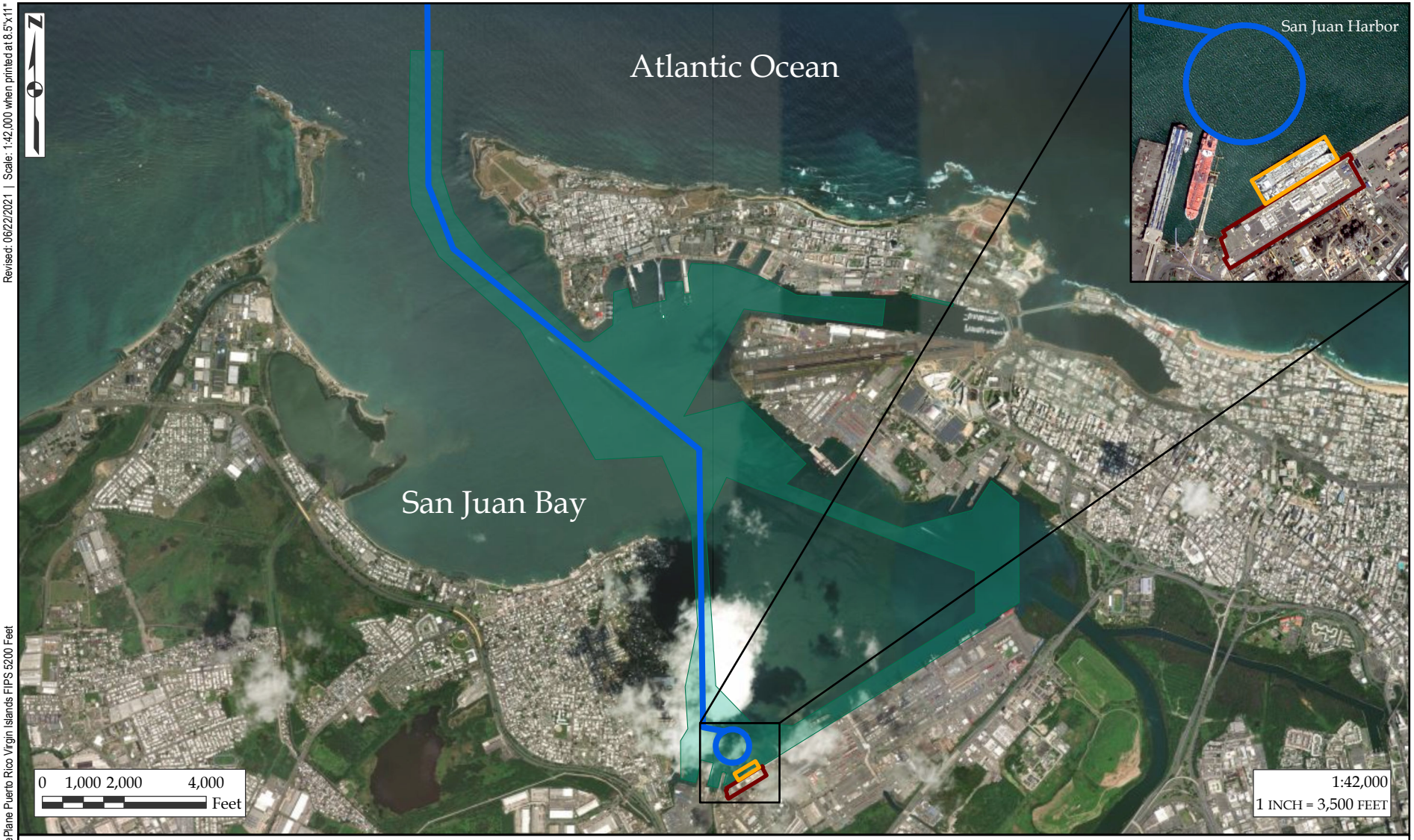
Map Author: CAL.WILSON

Revised: 06/22/2021 | Scale: 1:42,000 when printed at 8.5"x11"

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



MFH Facility

Storage Unit Shuttle

Vessel Route

Army COE Maintained Coastal Channels & Waterways

Data Sources

Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 1-B
Overview Map

San Juan Micro-Fuel Handling Facility
NFEnergía, LLCSan Juan, Puerto Rico

NFEnergía puerto rico

ERM

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Thu 7/1/2021 3:27 PM

Kara Hempy-Mayer

NFEnergía LLC San Juan Micro-Fuel Handling Facility - Species Information Request

To njimenez@drna.pr.gov

Cc hcruz@drna.pr.gov; bcmelmurray@newfortressenergy.com; Maggie Suter; Julia Joy

DRNA_NFE Information Request_30Jun2021.pdf
.pdf File

Dear Dr. Jiménez,

I'm writing to you on behalf of Brannen McElmurray and NFEnergía LLC (NFE) to request information on endangered or vulnerable species (state-listed species), as designated by Puerto Rico under Regulation No. 6766. NFE owns and operates a liquefied natural gas (LNG) import and regasification facility (Micro-Fuel Handling Facility or MFH Facility) in the Port of San Juan, Puerto Rico, and is preparing an application to the Federal Energy Regulatory Commission for operation of the facility under Section 3 of the Natural Gas Act. As part of the application process, NFE is looking at potential effects to state-listed species, and would appreciate your assistance in identifying a list of state-listed species that could be in the affected area, along with location information.

The attached document provides additional details on the MFH Facility, including overview maps showing the area of operation. Please let us know if you need any additional details. We're also happy to set up a call as needed.

Thank you,
Kara

Kara Hempy-Mayer
Senior Consultant
Prounouns: she/her/hers

Fri 7/23/2021 2:32 PM

Nilda M. Jimenez Marrero <njimenez@drna.pr.gov>

RE: NFEnergía LLC San Juan Micro-Fuel Handling Facility - Species Information Request

To Kara Hempy-Mayer

Cc Hiram Cruz Santiago; bcmelmurray@newfortressenergy.com; Maggie Suter; Julia Joy

You replied to this message on 7/26/2021 11:13 AM.

DRNA_NFE liquid gas facility Information Request_30Jun2021.pdf
.pdf File

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Hello Kara,

My apologies for the late response due to current work load. Some of the species you should considered for the indicated area are the Brown pelican (*Pelecanus occidentalis*), the West Indian manatee (*Trichechus manatus manatus*), the green turtle (*Chelonia mydas*) and the Peregrine Falcon (*Falco peregrinus*). These are protected species that have been reported for the area.

Best regards,

Nilda M. Jiménez Marrero, PhD
Coordinator
Endangered Species Program
Department of Natural and Environmental Resources
787-230-5555 (work)
787-772-2128 (work)
787-645-5593 (cel)
njimenez@drna.pr.gov

APPENDIX 3B 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 | Shuttle_Vessel_Route
Map Author: CAL.WILSON
Revised: 08/12/2021 | Scale: 1:1,320,000 when printed at 8.5"x11"
COORDINATE SYSTEM: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 Feet

MFH Facility

Shuttle Vessel Route

Exclusive Economic Zone Boundary

Data Sources

Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

Figure 3-1A

Shuttle Vessel Route Map

San Juan Micro-Fuel Handling Facility

NFEnergía, LLC - San Juan, Puerto Rico

NFEnergía puerto rico

ERM

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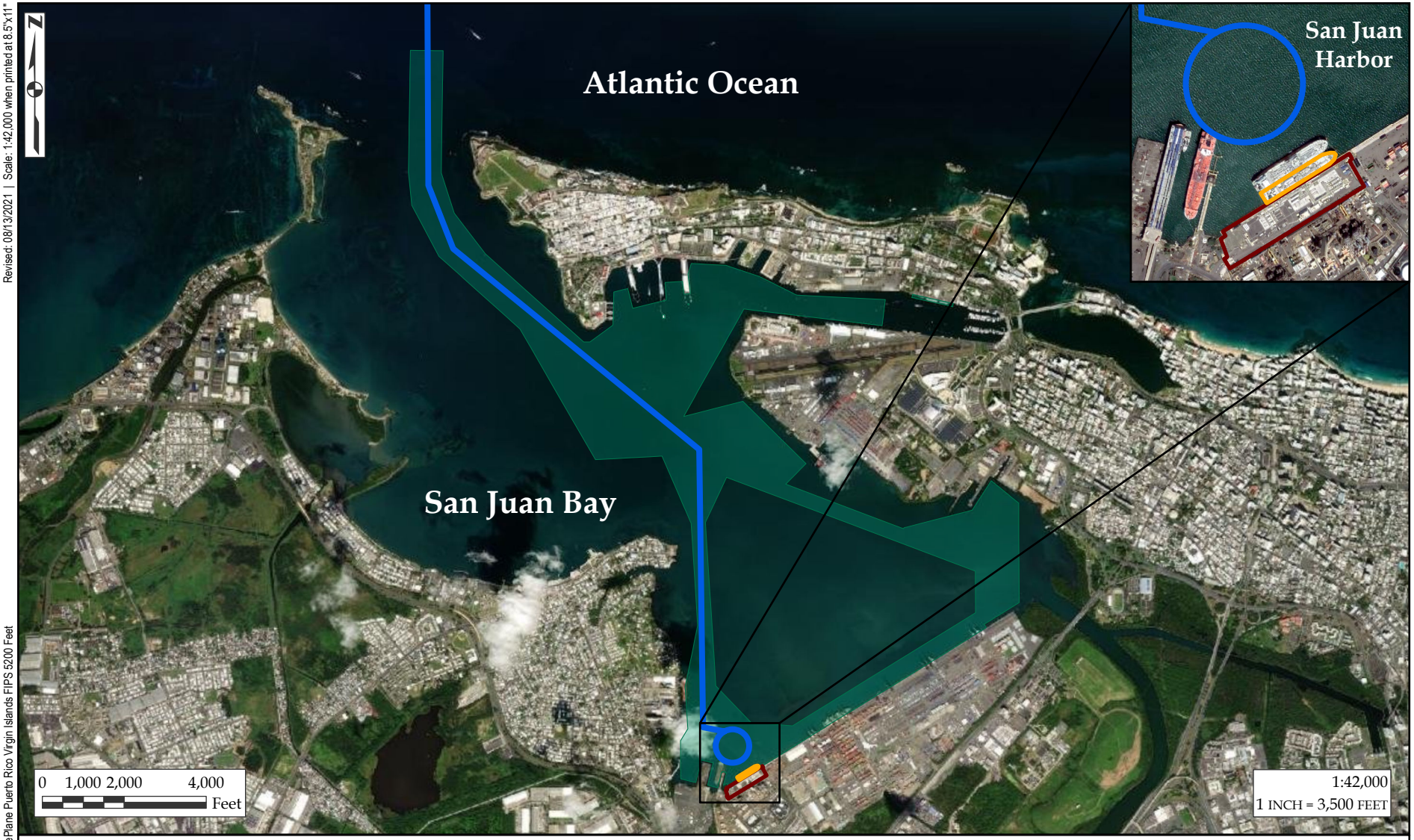
APRX Path | Layout Name: \\usbdcfs02\data\Boston\Team\DMMV\Clients_L_P\New_Fortress_Energy\Puerto_Rico_FERC\APRX\2021\2021_06_New_Fortress_FERC_Analysis\2021_06_New_Fortress_FERC_Analysis.aprx | Shuttle_Vessel_Route_Large_Scale
Map Author: CAL.WILSON
Revised: 08/13/2021 | Scale: 1:42,000 when printed at 8.5"x11"
COORDINATE SYSTEM: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 Feet



MFH Facility

Non-Jurisdictional Floating Storage Unit

Vessel Route

USACE Maintained Coastal Channels & Waterways

Figure 3-1B

Shuttle Vessel Route Map

San Juan Micro-Fuel Handling Facility
NFEnergía, LLC - San Juan, Puerto Rico

Data Sources
Flanders Marine Institute, National Oceanic and Atmospheric Administration, National Ocean Service, NFEnergía, LLC, Office Coast Survey, Puerto Rico Centro de Recaudación de Ingresos Municipales, U.S. Department of Commerce

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