September 13, 2021

L-2021-181
10 CFR 54.17

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
11545 Rockville Pike
One White Flint North
Rockville, MD 20852-2746

St. Lucie Nuclear Plant Units 1 and 2
Dockets 50-335 and 50-389
Facility Operating Licenses DPR-67 and NPF-16

SUBSEQUENT LICENSE RENEWAL APPLICATION - ENVIRONMENTAL REPORT SUPPLEMENT 1

References:

1. Florida Power & Light Company (FPL) Letter L-2021-142 dated August 3, 2021, Application for Subsequent Renewed Facility Operating Licenses (ADAMS Package Accession No. ML21215A315)
2. Subsequent License Renewal Application – Appendix E Applicant's Environmental Report, Subsequent Operating License Renewal Stage, St. Lucie Nuclear Plant Units 1 and 2, August 2021 (ADAMS Accession No. ML21215A319)

FPL, owner and licensee for St. Lucie Nuclear Plant (PSL) Units 1 and 2, has submitted a subsequent license renewal application (SLRA) for the Facility Operating Licenses for PSL Units 1 and 2 (Reference 1). The attachments to this letter provide information supplementing the Federally listed species and essential fish habitat analyses presented in the PSL SLRA Environmental Report (PSL SLRA ER; Reference 2).

For ease of reference, the index of attachment supplemental information is provided on page 3 of this letter. These attachments contain revisions to the PSL SLRA ER, shown with deleted text indicated by ~~strikethroughs~~ and inserted text indicated by **bold red underline**; table revisions are included as excerpts from each affected table.

Should you have any questions regarding this submittal, please contact me at (561) 691-2294 or William.Maher@fpl.com.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 13th day of September 2021.

Sincerely,

William D. Maher
Licensing Director - Nuclear Licensing Projects

Cc: Regional Administrator, USNRC, Region II
Senior Resident Inspector, USNRC, St. Lucie Plant
Chief, USNRC, Division of New and Renewed Licenses
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Chief, Bureau of Radiation Control, Florida Department of Health

Attachments Index	
Attachment No.	PSL SLRA ER Supplemental Information
1	Subsections 3.7.8.1.4/4.6.6 – Analysis of Impacts of the Proposed Action on the West Indian manatee (*Trichechas manatus*)
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Ecology

Affected SLRA Enclosure 3, Attachment 2, Sections: Subsections 3.7.8.1.4/4.6.6

SLRA ER Page Numbers: 3-156; 4-26/27

Description of Change: Analysis of the Impacts of the Proposed Action on the West Indian manatee (*Trichechas manatus*)

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The West Indian manatee is a large marine mammal found in coastal and freshwater systems on both coasts of Florida. West Indian manatees are general herbivores able to feed on a variety of vegetation types. They are tolerant of changes in salinity, but sensitive to temperature variations because they lack a thick insulating layer of blubber common to other marine mammals. Several anthropogenic activities pose threats to West Indian manatees. Deaths are attributable to the management of water-control structures and navigational locks, loss of habitat associated with coastal development, and several other activities. West Indian manatees have been spotted in the Indian River lagoon and on the PSL site. (USFWS 1999)

~~Five occurrences of manatees entering the intake canal have happened since the startup of PSL.~~ Although preferred habitats **for West Indian manatees** are in the Indian River Lagoon, which is designated critical habitat for this species, and other inland waterways where food sources are abundant, they do occasionally travel up and down the coast near the shore (USFWS 1999). West Indian manatees are known to congregate in the warm water effluents of power plants during winter months; however, PSL is not known as a regular congregation site for the West Indian manatee. ~~All five of the manatee captures were coordinated with FWS and FDEP. No manatee deaths have occurred at PSL (NRC 2003). Compliance with all regulatory requirements associated with protected species will be an administrative control practiced by FPL for the licensed life of the PSL facility. Adherence to these controls, as well as compliance with applicable laws and regulations, should prevent potentially adverse impacts to this species~~

There have been six instances of West Indian manatees entering the intake canal since license renewal, occurring in 2003, 2006 (two instances), 2008 (two instances), and 2010. All West Indian manatees entered the intake canal through the intake pipe. Duration within the intake canal has ranged from a maximum of three days during one 2006 instance and one 2008 instance to a minimum 4 hours during the 2010 instance. In four of the six instances, the West Indian manatees in the intake canal were captured within one day. The barrier net installed for sea turtles was beneficial in keeping West Indian manatees in a safer location within

the intake canal facilitating quicker capture. For all instances, FPL coordinated with USFWS and captures and releases were under the direction of FFWCC.

Of the six West Indian manatees removed from the intake canal, five were in good condition and released to the Indian River Lagoon. In 2010 one manatee was transported to a rehabilitation facility when it was observed to be lethargic and injured. The manatee subsequently died, and the FFWCC indicated that the death was likely due to cold temperature stress. To further support this supposition, an unusual manatee mortality instance in Florida was attributed to the cold temperatures during the winter of 2009–10, and is thought to have caused the deaths of 252 West Indian manatees (Hardy et al. 2019). Thus, the 2010 manatee death at PSL was considered a non-causal fatality.

FPL anticipates continued compliance with all regulatory requirements associated with protected species for the SPEO. Adherence to these controls, as well as compliance with applicable laws and regulations, should prevent potentially adverse impacts to this species.

Pages 4-26/27

Since 2017 there have been three **small**~~saw~~tooth sawfish captures in the intake canal. Further, FPL exceeded its take limit for non-lethal captures of Kemp ridleys (2018 and 2019), and green sea turtle~~s~~ causal mortalities (2018) under the latest BO issued by NMFS. Thus, the NRC reinitiated Section 7 consultations with the NMFS. Further, two giant manta rays were captured and released in September 2020 and October 2020, and have become part of the consultation process.

As described above in Section 3.7.8.1.4, six instances of West Indian manatees entering the intake canal have happened since license renewal. The most recent instance was in 2010. Of those, five West Indian manatees were in good condition with minor scrapes that may have resulted from contact with the intake pipe. These were released to the Indian River Lagoon. One West Indian manatee was transported to a rehabilitation facility and subsequently died due to cold temperature stress and was considered a non-causal fatality.

No West Indian manatee fatalities were determined to be causal to PSL operations.

No West Indian manatees have been observed in the intake canal since 2010; however, it is possible that West Indian manatees may enter the intake canal via the intake pipe during the subsequent period of extended operations (SPEO). Based on instances within the PSL site to date, it is expected that entrapment of West Indian manatees in the intake canal would be a rare instance. FPL has installed and maintains three barriers in the intake canal to reduce potential

losses of marine life, particularly sea turtles, and to facilitate the return of turtles to the ocean. These include deployment of a 5-inch mesh barrier net across the intake canal approximately midway between SR A1A and the intake canal headwall, an 8-inch mesh barrier net immediately east of SR A1A, and installation of a rigid barrier across the north-south arm of the intake canal. These barriers have been effective in containing West Indian manatees in a safer area within the intake canal, thereby allowing for quicker capture and removal.

Based on past instances, it is expected that healthy West Indian manatees would not experience more than minor scrapes as a result of transport through the intake pipe. Based on the infrequent instance of West Indian manatees in the intake canal over the operating lifetime of PSL, the absence of historic causal injury requiring transportation to rehabilitation facilities, and the absence of historic causal mortality, it is anticipated that the continued operation of PSL under the SLR would result in no more than minor effects to West Indian manatees.

FPL anticipates continued compliance with all regulatory requirements associated with protected species for the SPEO. Continued coordination with the USFWS and the FFWCC is also anticipated for future removal of any West Indian manatees in the intake canal. Adherence to these controls, as well as compliance with applicable laws and regulations, should prevent potentially adverse impacts to this species. Thus, the SPEO is not likely to adversely affect this species.

With regard to designated critical habitat for the West Indian manatee within the Indian River Lagoon (see ER Figure 3.7.3), PSL operations would not adversely affect the designated critical habitat. Surface water use associated with the operation of PSL consists of saltwater withdrawn from the Atlantic Ocean. As discussed in Section 3.7.1 of the ER, the plant is also equipped to withdraw water from the Indian River Lagoon via Big Mud Creek, but this withdrawal system is for emergency use and this pathway is closed during normal operation.

Discharges to surface water, both cooling water and non-cooling system wastewater such as stormwater, are to the Atlantic Ocean through a NPDES-permitted outfall. There are no NDPES discharges to the Indian River Lagoon. To address the potential for spills to reach surface waters, as discussed in ER Section 9.5.3.6, PSL has a spill prevention, control, and countermeasure (SPCC) plan that addresses storage, secondary containment, and inspections. In addition, all aboveground storage tanks are equipped with secondary containment and, as appropriate, automated spill and overfill detection systems. PSL also has a stormwater pollution prevention plan (SWPPP) to address the potential for containments in stormwater as discussed in ER Section 3.6.1.2.

These programs prevent and mitigate spills that could reach the adjacent surface water, including the Indian River Lagoon.

Also, as discussed in ER Section 3.10.3, PSL monitors radioactivity onsite and in the surrounding approximately 10-mile radius through its Radiological Environmental Monitoring Program (REMP) to identify above-background quantities of radioactivity, radionuclides, and direct radiation attributable to PSL operation in monitored sector locations of the environment. The PSL REMP is designed to provide representative measurements of radiation and of radioactive materials through various media exposure pathways. Samples are collected, and analysis conducted, by the Florida Department of Health, Bureau of Radiation Control. The REMP includes continuous direct radiation gamma exposure using thermoluminescent dosimeters, continuous airborne radioiodine and particulate sampling, monthly sampling and analysis of broad leaf vegetation weekly and monthly sampling and analysis of surface water, and semiannual sampling and analysis of shoreline sediment, fish, and invertebrates.

The 2020 report of the REMP sampling results, the radiological environmental operating report, concluded that the data verify that the levels of radiation and concentrations of radioactive materials in environmental samples, representing the highest potential exposure pathways to members of the public, are not increasing. Measured exposure rates are consistent with exposure rates that were observed during the preoperational surveillance program. (FPL 2021e)

In summary, FPL implements programs, procedures, and practices providing reasonable assurance that compliance with all regulatory requirements related to protected species, water quality, pollution prevention, and radiological hazards is maintained during the SPEO. Thus, with adherence to these controls, as well as compliance with applicable laws and regulations, the continued operation of the PSL during the period of extended operation would not adversely modify the designated critical habitat for the West Indian manatee.

Further, the federally protected Nassau grouper, eastern indigo snake, crested caracara, Everglade snail kite, Florida scrub jay, ivory billed woodpecker, piping plover, red knot, wood stork, Anastasia beach mouse, southeastern beach mouse, cassius blue butterfly, ceraunus blue butterfly, Miami blue butterfly, Johnson's seagrass, Lakela's mint, and tiny polygala have the potential to occur at PSL, but are not currently documented as occurring onsite. Compliance with all regulatory requirements associated with protected species will be an administrative control practiced by FPL for the licensed life of the PSL facility. Adherence to these controls, as well as compliance with applicable laws and regulations, should prevent potentially negative impacts to these species. Thus, continued operation of the PSL under the proposed SLR is~~n~~ not likely to adversely affect these species.

As stated in the 2001 LRA ER, a notable positive impact on protected species would be realized by the continuation of the educational programs and marine environmental protection programs that would be supported by the continued operation of St. Lucie Units 1 & 2 (FPL 2001).

Ecology

Affected SLRA Enclosure 3, Attachment 2, Sections: Subsections 3.7.8.6/4.6.6.4.2, Table 3.7-6

SLRA Page Numbers: 3-178; 3-195; 4-28

Description of Change: Analysis of the Effects of the Proposed Action on Essential Fish Habitat (EFH).

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~~A review of the NOAA nationwide essential fish habitat (EFH) was conducted to determine the location of EFH within 6 miles of PSL. NOAA only provides EFH for federally managed fish and invertebrates. Twenty-two species with EFH were located within the 6-mile radius (Table 3.7-6; Figure 3.7-4). (NOAA 2018)~~

~~In addition, the NOAA Office of Sustainable Fisheries manages highly migratory species (HMS). HMS are those species who travel long distances, often across international boundaries. These pelagic species live in the water of the open ocean, although they may spend part of their life cycle in nearshore waters. Highly migratory species managed by NOAA include tunas, some sharks, swordfish, billfish, and other highly sought-after fish such as Pacific mahi mahi. Domestically, HMS are managed through the Magnuson-Stevens Act. Internationally, HMS are managed through the International Commission for the Conservation of Atlantic Tunas. EFH has been designated and described for over 40 Atlantic HMS. Of these designated species, 16 are denoted as occurring within a 6-mile radius of PSL (NOAA 2018) (Table 3.7-7).~~

Under the provisions of the Magnuson–Stevens Act, the fishery management councils and the NMFS have designated essential fish habitat (EFH) for certain federally managed species. EFH is defined as the waters and substrate necessary for spawning, breeding, feeding, or growth to maturity (16 U.S.C. 1802(10)). For each federally managed species (herein referred to as "EFH species"), the fishery management councils and the NMFS designate and describe EFH by life stage (i.e., eggs, larva, neonate, juvenile, and adult).

The EFH mapper provided by NOAA provides spatial and descriptive representation of EFH (NOAA 2021ax). NOAA notes that the graphic representations are based on text descriptions, which are the most authoritative information available for identification of EFH. Table 3.7-6 presents the results of the EFH mapper. EFH for 22 South Atlantic and/or highly migratory species (HMS) occur within the 6-mile radius of the PSL site, including the Atlantic Ocean and Indian River Lagoon, as well as reaches of the North Fork Saint Lucie River and Long Creek (ER Figure 3.7-4). Highly migratory species are summarized in ER

Table 3.7-7. No EFH areas protected from fishing are located within 6 miles of the PSL site; however, several habitat areas of particular concern (HAPCs) are located within 6 miles of the PSL site. (NOAA 2021a) HAPCs are designated through action by the regional fishery management councils and do not convey additional restrictions or protections on an area—they simply focus increased scrutiny, study, or mitigation planning compared to surrounding areas because they represent high priority areas for conservation, management, or research and are necessary for healthy ecosystems and sustainable fisheries. (NOAA 2020x) Information on species with EFH within 6 miles of the PSL site is provided below.

3.7.8.6.1 Atlantic Sharpnose Shark (Atlantic stock) (Rhizoprionodon terraenovae)

Atlantic sharpnose sharks are commonly found in the western Atlantic from New Brunswick, Canada, through the Gulf of Mexico, and are commonly caught in U.S. waters from Virginia to Texas. In Florida, this species is found in coastal waters near the surf zone and offshore; they are common in bays and estuaries. They are found at depths to 920 feet, but mostly remain in waters less than 32 feet deep. Atlantic sharpnose sharks mate annually between mid-May and mid-July in inshore waters, after mating they migrate offshore to deeper waters. After a gestation period of 10 to 11 months, the females return to nearshore areas to give birth in June. Atlantic sharpnose sharks eat small fish, including menhaden, eels, silversides, wrasses, jacks, toadfish, and filefish. They also eat worms, shrimp, crabs, and mollusks. The Atlantic Ocean and Indian River Lagoon provide EFH during the neonate and adult life stages. EFH for the juvenile life stages of the Atlantic sharpnose shark is provided in the Indian River Lagoon and extends to areas of the Atlantic Ocean adjacent to the PSL site. (FMNH 2021a; NOAA 2021ax; NOAA 2021bx)

3.7.8.6.2 Bigeye Thresher Shark (Alopias superciliosus)

The bigeye thresher is found in warm, temperate and tropical oceanic and coastal waters from the surface to depths of 500 feet. Found nearly worldwide, it has a preference for surface temperatures of 61° to 77°F. Bigeye threshers occasionally enter shallow waters near land, but generally are found in the open sea. The bigeye thresher generally feeds on benthic and pelagic fish such as tuna, lancetfishes, hake, and herring as well as young billfish. They also feed on squid and various crustaceans. There appears to be no defined breeding season since pregnant females have been caught with embryos at various developmental stages year-round. At birth, bigeye threshers measure from 4.27-4.59 feet in total length. EFH for all life stages of the bigeye thresher shark extends to areas of the Atlantic Ocean adjacent to the PSL site, beginning approximately 2.5 miles offshore from the PSL site. (FMNH 2018a; NOAA 2021ax)

3.7.8.6.3 Blacknose Shark (Atlantic stock) (Carcharhinus acronotus)

The blacknose shark is found in coastal tropical and warm temperate waters of the western Atlantic Ocean. As an inshore species, the blacknose shark resides in waters of continental shelves over sandy and coral bottoms. Juvenile blacknose are typically found in shallow water while adults are located at greater depths (over 30 feet). There is segregation by size and sex in this species. The blacknose shark is a quick swimmer, feeding on small fish including pinfish, croakers, porgies, anchovies, spiny boxfishes, and porcupine fish. It is also known to feed on octopus. Blacknose sharks are viviparous, mating in late June and early July with a gestation period of 10–11 months. Female blacknose sharks in the Atlantic appear to reproduce biennially (once every 2 years). EFH for the juvenile and adult blacknose shark extends to areas of the Atlantic Ocean adjacent to the PSL site. (FFWC 2021a; FMNH 2020; NOAA 2021ax)

3.7.8.6.4 Bluefish (Pomatomus saltatrix)

Bluefish are highly migratory along the U.S. Atlantic coast, with a strong migration of northeast Atlantic stock to Florida's east coast in winter. Adults inhabit both inshore and offshore areas of the coast, while juveniles are dependent upon shallower habitats in estuaries and river mouths. Juvenile bluefish, known as snappers, feed on small fish, crustaceans, molluscs and polychaetes. Adults feed opportunistically on fish, squid and eels. They eat squid and fish, particularly menhaden and smaller fish such as silversides. While adult bluefish are largely oceanic, juveniles have been collected in salinities ranging from 9 to 27 parts per thousand (ppt). Spawning occurs over the continental shelf in the mid- and south Atlantic Bight. EFH for egg, larva, juvenile, and adult life stages for the bluefish extends to areas of the Atlantic Ocean adjacent to the PSL site. The Indian River Lagoon provides EFH for the adult life stage. (FFWCC 2021bx; NOAA 2021ax; NOAA 2021cx; USFWS 2001)

3.7.8.6.5 Bonnethead Shark (Atlantic stock) (Sphyrna tiburo)

Bonnetheads reside on continental and insular shelves, over reefs, estuaries, and shallow bays to depths of 39 feet. They feed during daylight hours primarily on crustaceans, particularly blue crabs, mantis shrimp, pink shrimp, mollusks, and small fishes. Occasionally bonnetheads will also feed on seagrasses, especially as pups. This species has been reported burrowing under coral heads in search of small fishes and invertebrates in the waters of southern Florida. Prey items appear to be correlated with seasonality as well as habitat. Although crustaceans are the primary food source throughout the year, diversity of prey items increases during autumn with the inclusion of spider crabs, purse crabs, stone crabs, and various cephalopods including octopus. Bonnetheads residing inside bays feed on a less diverse array of prey items than those caught off beaches in

open waters. Bonnetheads are viviparous, or live-bearing. Females congregate in shallow inshore waters during pupping season, giving birth in late summer and early fall. The pups will live in the seagrass beds for the first years of life. EFH for juvenile and adult bonnethead sharks extends to areas of the Atlantic Ocean adjacent to the PSL site. (FFWCC 2019; NOAA 2021ax)

3.7.8.6.6 Bull Shark (Carcharhinus leucas)

Bull sharks occur in tropical to subtropical coastal waters, worldwide. They also occur in a number of river systems and some freshwater lakes. In the western Atlantic, bull sharks migrate north along the coast of the U.S. during summer, swimming as far north as Massachusetts, and then return to tropical climates when the coastal waters cool. The bull shark prefers to live in shallow coastal waters less than 100 feet deep but ranges from 3–450 feet deep. It commonly enters estuaries, bays, harbors, lagoons, and river mouths. It is one of very few species that readily move into freshwater, and apparently can spend long periods of time in such environments. There is evidence that while they can breed in freshwater; however, they do not do so as regularly as they do in estuarine and marine habitats. Juvenile bull sharks enter low salinity estuaries and lagoons as readily as adults do and use these shallow areas as nursery grounds. Bull sharks can also tolerate hypersaline water as high as 53 ppt. Bony fishes and small sharks make up the vast majority of the bull shark's diet. In the western Atlantic they commonly feed on mullet, tarpon, catfishes, menhaden, gar, snook, jacks, mackerel, snappers, and other schooling fish. They also consume stingrays and juvenile sharks including small individuals of their own species in their inshore nursery habitats. Other food items occasionally reported in bull sharks include sea turtles, dolphins, crabs, shrimp, sea birds, and squid. Mating and birthing occur during the summer month in the Gulf of Mexico and year-round in the warmest parts of the range. Bull sharks bear live young. Coastal lagoons, river mouths, and other low-salinity estuaries are common nursery habitats. EFH for juvenile and adult bull sharks is provided in the Indian River Lagoon and extends to areas of the Atlantic Ocean adjacent to the PSL site. (FMNH 2018b; NOAA 2021ax)

3.7.8.6.7 Caribbean Reef Shark (Carcharhinus perezi)

The Caribbean reef shark is the most common shark on or near coral reefs in the Caribbean. Surveys indicate that the species is rarely found north of the Florida Keys. It is a tropical inshore, bottom-dwelling species of the continental and insular shelves. Although *C. perezi* mainly inhabits shallow waters, it has been recorded to reach depths to at least 98 feet. Caribbean reef sharks are commonly found close to drop-offs on the outer edges of coral reefs and also may lie motionless on the bottom of the ocean floor. Caribbean reef sharks feed mainly on a variety of fishes associated with reef habitat (barracuda, jacks, snapper,

grunts, needlefish, trumpetfishes, and octopus). Relatively little is known about the reproduction of the Caribbean reef shark. This species is viviparous and gestation is believed to take approximately one year. EFH for all life stages of the species is provided in the Indian River Lagoon and extends to areas of the Atlantic Ocean adjacent to the PSL site; however, as stated above, the species is a tropical inshore, bottom-dwelling species of the continental and insular shelves and rarely found north of the Florida Keys. Therefore, it is unlikely to occur near the PSL site. (FFWCC 2021cx; FMNH 2021b; NOAA 2021ax)

3.7.8.6.8 Coastal Migratory Pelagics

The coastal migratory pelagic species include king mackerel (*Scomberomorus cavalla),* Spanish mackerel (*Scomberomorus maculatus*), and cobia (*Rachycentron canadum*) (SAFMC 2021a). Spanish mackerel are epipelagic, residing at depths ranging from 33–115 feet. They are often found in very large schools near the surface of the water. They frequent barrier islands and the passes associated with these islands and are rarely found in low salinity waters. Spanish mackerel larvae occur mostly offshore while juvenile mackerels are found both offshore and in the beach surf. The diet of adult Spanish mackerel consists primarily of smaller fish such as herrings, jacks, and sardines. This mackerel is also known to feed in lesser quantities on shrimp and cephalopods. Spanish mackerel have separate male and female sexes which produce milt and roe (respectively) during reproduction. The gametes are broadcast into the water column and fertilization is external. In the waters off Florida spawning typically occurs from July through September. The eggs are buoyant, round in shape and transparent. Hatching has been documented to occur within 25 hours at 79°F. It has been reported that the larval stage lasts from approximately 0.12-0.51 inches total length. The larvae feed on larval fishes such as carangids, clupeids, and engraulids as well as some crustaceans. Juveniles often utilize estuaries as nursery areas. (FMNH 2017a)

The king mackerel prefers outer reefs and coastal waters. King mackerels occur in depths between 75.5–111.5 feet. Dependent upon warm temperatures, king mackerel can migrate along the east coast of the U.S. They prefer to feed on schooling fish, but also eat crustaceans and occasionally mollusks. Some of the fish they eat include jack mackerels, snappers, grunts, and halfbeaks. They also eat penaeid shrimp and squid. Little is known about the reproduction of king mackerel. Spawning occurs most frequently from May through September. Eggs are believed to be released and fertilized continuously during these months, with a peak between late May and early July and another from late July to early August. Larvae of the king mackerel have been found in waters with temperatures between 79-88°F. This stage of development does not last very long. Larva of the

king mackerel can grow up to 0.02 to 0.05 inches per day. This shortened larval stage decreases the vulnerability of the larva. (FMNH 2021c)

Cobia are pelagic fish found over the continental shelf as well as around offshore reefs. It prefers to reside near any structure that interrupts the open water such as pilings, buoys, platforms, anchored boats, and flotsam. The cobia is also found inshore inhabiting bays, inlets, and mangroves. They are carnivores, feeding on crustaceans, cephalopods, and small fishes such as mullet, eels, jacks, snappers, pinfish, croakers, grunts, and herring. A favorite food is crabs. Cobia often cruise in packs of 3-100 fish, hunting for food during migrations in shallow water along the shoreline. Little is known about the feeding habits of larvae and juvenile cobia. Cobia form large aggregations, spawning during daylight hours. During spawning, cobia undergo changes in body coloration from brown to a light horizontal-striped pattern, releasing eggs and sperm into offshore open water. Cobia have also been observed to spawn in estuaries and shallow bays with the young heading offshore soon after hatching. Cobia eggs are spherical, averaging 1.24mm in diameter. Larvae are released approximately 24-36 hours after fertilization. These larvae are 2.5 mm long and lack pigmentation. Five days after hatching, the mouth and eyes develop, allowing for active feeding. (FMNH 2017b)

Essential fish habitat for all life stages of these species includes the Atlantic Ocean beginning approximately 5.5 miles from the PSL site, as well as some areas of the Indian River Lagoon. None of the EFH is abutting the PSL site, the closest location is approximately 1.7 miles from the PSL site. (NOAA 2021ax)

3.7.8.6.9 Corals

The South Atlantic Fishery Management Council has designated EFH for coral species belonging to the orders Stolonifera, Telestacea, Alcyonacea (soft corals), Gorgonacea (horny corals, sea fans, sea whips), and Pennatulacea (sea pens) in the subclass Octocorallia; orders Scleractinia (stony corals) and Antipatharia (black corals) in the subclass Zoantharia; and the orders Milleporina (fire corals, stinging corals) and Stylasterina in the class Hydrozoa. (SAFMC 1998) As discussed in ER Section 3.7.8.1.8, six federally threatened coral species are documented with the possibility of occurring in areas of the Atlantic Ocean adjacent to the PSL site: boulder star coral (*Orbicella franksi*), lobed star coral (*Orbicella annularis*), mountainous star coral (*Orbicella faveolate*), pillar coral (*Dendrogyra cylindricus*), rough cactus coral (*Mycetophyllia ferox*), and staghorn coral (*Acropora cervicornis*) (FAC 2020; FFWCC 2018). It is unknown whether these species are currently located near PSL. However, FPL sited the PSL intake and discharge structures specifically to avoid local reefs and other hard-bottom habitats.

Many hard corals, and all hermatypic corals, share a symbiotic relationship, a relationship between two dissimilar organisms, with microscopic algae called zooxanthellae. These algae give stony corals their vivid color. Zooxanthellae create nutrients through photosynthesis and provide important resources to the coral polyp in exchange for a home within the polyp's living tissue. (FFWCC 2021dx)

Some octocorals share a symbiotic relationship with zooxanthellae, which is similar to that of hard corals, however, many do not. Octocorals that do not have zooxanthellae get their colors from pigments in the coral polyp or the outer layer of the skeletal structure. Both groups of corals can use their tentacles to capture food (plankton). Although acquiring energy in this manner is more common among octocorals. (FFWCC 2021dx)

Sexual reproduction in corals results in the start of a new coral colony and is accomplished by spawning or brooding. In spawning, gametes (sperm and egg cells) are released into the water column where they meet and form larvae which settle to the bottom and become new coral colonies. In brooding gametes meet and develop into larvae within a coral polyp and are then released into the water column to settle and become new coral colonies. Coral species that spawn do so only once per year. This generally happens in one mass-spawning instance that typically occurs at the end of the summer. (FFWCC 2021dx)

Asexual reproduction in corals is accomplished either by fragmentation or by budding. Because corals are colonial animals, when their skeletons are broken up or fractured the resulting parts can continue to grow as new colonies. This method of reproduction is common among branching corals that can break into pieces from the intense physical stress of storms. These pieces then grow into new colonies. In this way large stands of branching coral can be produced. Budding is the process where one coral polyp splits into two. This is how a coral colony grows from one individual polyp to many. (FFWCC 2021dx)

Essential fish habitat for all life stages of these species has been identified within areas of the Atlantic Ocean within 6 miles of the PSL site. The closest areas are approximately 0.7 and 1.3 miles from the PSL. (NOAA 2021ax)

3.7.8.6.10 Great Hammerhead Shark (Sphyrna mokarran)

The great hammerhead is found in coastal warm temperate and tropical waters. This large coastal/semi-oceanic shark is found far offshore to depths of 984 feet, but are commonly in shallow coastal areas such as over continental shelves and lagoons to depths of 262 feet. The great hammerhead migrates seasonally, with some populations moving poleward to cooler waters during the summer months Great hammerheads are active predators, preying upon a wide variety of marine

organisms, from invertebrates to bony fishes and sharks. They are known to prefer stingrays and other batoids when available. Great hammerheads are thought to be cannibalistic, eating individuals of their own species if food is scarce. This species is viviparous. Following a gestation period of approximately 11 months, birth occurs during the spring or summer in the northern hemisphere. Litters range in number from 6 to 42 pups each measuring between 1.6 and 2.3 feet in total length. EFH for all life stages of the great hammerhead shark extends to areas of the Atlantic Ocean adjacent to the PSL site. (FMNH 2018c; NOAA 2021ax)

3.7.8.6.11 Lemon Shark (Negaprion brevirostris)

The lemon shark is commonly found in subtropical shallow water to depths of 300 feet around coral reefs, mangroves, enclosed bays, sounds and river mouths. However, this species do not venture far into freshwater systems. Lemon sharks can be found in oceanic water when migrating but tend to stay along the continental and insular shelves. The lemon shark is known to form loose aggregations based on size and sex and have been seen congregating near docks and fishing piers during the night, returning to deep water during the day. The lemon shark is commonly found swimming over sandy or muddy bottoms and eats a diet consisting mainly of bony fish and crustaceans. Catfish, mullet, jacks, croakers, porcupine fish, cowfish, guitarfish, stingrays, eagle rays, crabs and crayfish make up the majority of their diet. In addition, this species will eat sea birds and smaller sharks. Lemon shark pups are born alive. Mating occurs in shallow water during the spring and summer months and is followed by a 10-12 month gestation period. Gravid females return to shallow nursery grounds to give birth and the young remain in these nursery grounds for several years. Litters range from 4-17 individuals and from 1.6 to 1.9 feet in length at birth. EFH for the lemon shark juvenile and adult life stages extends to areas of the Atlantic Ocean adjacent to the PSL site. (FNHM 2018d; NOAA 2021ax)

3.7.8.6.12 Nurse Shark (Ginglymostoma cirratum)

The nurse shark is a nocturnal animal that rests on sandy bottoms or in shallow-water caves and rock crevices during the day. They occasionally occur in groups of up to 40 individuals, where they can be seen lying close together, sometimes piled upon one another. Nurse sharks are active during the night, often swimming near the bottom or clambering across the sea floor, using their muscular pectoral fins as limbs. Large juveniles and adults are usually found around deeper reefs and rocky areas at depths 10 to 246 feet during the daytime moving into shallower waters of less than 65feet after dark. Juveniles are generally found around shallow coral reefs, grass flats or mangrove islands in 3 to13 feet of water. Nurse sharks show a strong preference for specific resting sites, repeatedly returning to the same caves and crevices after nocturnal activity.

Nurse sharks feed mainly on fish, stingrays, mollusks (octopi, squids and clams), and crustaceans. Algae and corals are occasionally found in their stomachs, as well. The nurse shark is an ovoviviparous species. After mating, gestation takes five to six months. The young are born in late spring/early summer with litter of 20-30 pups. Each pup measures 10.6 to 11.8 inches total length. EFH for the juvenile and adult life stages of the nurse shark extends to areas of the Atlantic Ocean adjacent to the PSL site. (FMNH 2018e; NOAA 2021ax)

3.7.8.6.13 Sailfish (Istiophorus spp)

The Atlantic sailfish swims in the surface epipelagic and oceanic waters. It generally remains above the thermocline, in water temperatures between 70° and 83°F. There is evidence that it also swims into deeper water. It is less oceanic than other billfishes, making frequent forays into nearshore water. Cephalopods (squid and octopus) and bony fishes are the primary prey items of the sailfish in the Atlantic Ocean. Mackerels, tunas, jacks, halfbeaks, and needlefish are the most commonly taken fishes. These prey items indicate that some feeding occurs at the surface, as well as in midwater, along reef edges, or along the bottom substrate. Spawning has been observed year-round in the Atlantic. A large female may release 4,500,000 eggs while spawning. Atlantic sailfish are approximately 0.125 inches at hatching. During the first year of life, young fish can often be observed off the coast of Florida. EFH for the juvenile and adult life stages of sailfish extends to areas of the Atlantic Ocean adjacent to the PSL site. (FMNH 2017c; NOAA 2021ax)

3.7.8.6.14 Sandbar Shark (Carcharhinus plumbeus)

The sandbar shark is essentially a bottom-dwelling, shallow coastal water species that is seldom seen at the water's surface. It tends to prefer waters on continental shelves, oceanic banks, and island terraces but is also commonly found in harbors, estuaries, at the mouths of bays and rivers, and shallow turbid water. Despite this, *C. plumbeus* is exclusively a marine species and does not venture into freshwater. It is believed that the sandbar shark favors a smooth substrate and will avoid coral reefs and other rough-bottom areas. It spends most of the time in water from 60 to 200 feet deep but undoubtedly moves into deeper water to undergo migration. The sandbar shark is an opportunistic bottom-feeder that preys primarily on relatively small fishes, mollusks and crustaceans. Common food items include various bony fishes, eels, skates, rays, dogfish, octopus, squid, bivalves, shrimp and crabs. In the northern hemisphere, mating occurs in the spring or early summer (May-June). In the western Atlantic, pups are born from June through August. Parturition occurs in shallow water habitats, providing a 'nursery' area for young sharks where they are protected from predation by larger sharks. Juvenile sandbar sharks remain in the shallows until late fall at which time they form schools and move southward and further

offshore only to return for the summer months. This movement between shallow coastal waters and warmer, deeper waters may continue for a period of up to five years but should not be confused with adult migrations that involve much greater distances. EFH for the adult life stage of the sandbar shark extends to areas of the Atlantic Ocean adjacent to the PSL site. (FMNH 2021d; NOAA 2021ax)

3.7.8.6.15 Scalloped Hammerhead Shark (Sphyrna lewini)

The scalloped hammerhead shark is discussed in Section 3.7.8.1.1. This species is a federally listed threatened species and is included in the Section 7 consultation initiated by the NRC in 2019. EFH for the juvenile and adult life stages for this species extends to areas of the Atlantic Ocean adjacent to the PSL site. (NOAA 2021ax)

3.7.8.6.16 Skipjack Tuna (Katsuwonus pelamis)

The skipjack tuna is an epipelagic fish, occurring in waters ranging in temperature from 58-86°F. While skipjacks remain at the surface during the day, they may descend to depths of 850 feet at night. Skipjack feed primarily upon fishes, crustaceans, and mollusks. Fishes that are preyed upon by the skipjack tuna include herrings, anchovies, and sardines. Cannibalism is common with this species as well. Skipjack are oviparous. In warm equatorial waters, skipjack spawn year-round while further away from the equator, spawning season is limited to the warmer months. Larger females produce significantly more eggs than smaller females, with the average adult producing 80,000 to 2 million eggs per year. The eggs are approximately 0.94 mm in diameter, with a clear shell. The larvae hatch at a size of 3.0 mm. T EFH for the adult life phase of the skipjack tuna is provided in the Indian River Lagoon and extends to areas of the Atlantic Ocean adjacent to the PSL site. (FMNH 2017d; NOAA 2021ax)

3.7.8.6.17 Snapper Grouper (Multiple Species)

Of the 98 species managed by the South Atlantic Fisheries Management Council, 73 are included in the snapper grouper complex. The latter includes the families Serranidae (sea basses and groupers), Polyprionidae (wreckfish), Lutjanidae (snappers), Sparidae (porgies), Haemulidae (grunts), Carangidae (jacks), Malacanthidae (tilefishes), Balistidae (triggerfishes), Labridae (wrasses), and Ephippidae (spadefishes). Several of the species in this complex inhabit deepwater habitats or depend on them for a portion of their life cycle (i.e., spawning). There is considerable variation in specific life history patterns and habitat use among the snapper grouper species complex. EFH for all life stages of fish included in snapper grouper complex is provided in the Indian River Lagoon and extends to areas of the Atlantic Ocean adjacent to the PSL site. (NOAA 2021ax; SAFMC 1998; SAFMC 2021b)

3.7.8.6.18 Spinner Shark (Carcharhinus brevipinna)

The spinner shark lives in subtropical, tropical, and temperate regions, ranging from inshore to offshore waters over continental and insular shelves. Depth of habitat ranges from 0 to 328 feet. The spinner shark forms schools and is considered a highly migratory species, moving inshore during spring and summer months to reproduce and feed. Although juvenile spinner sharks move into lower portions of bays with the tides, they avoid areas of low salinity. The spinner shark feeds primarily on small pelagic teleosts including ten-pounders, sardines, herrings, anchovies, sea catfish, lizardfish, mullet, bluefish, tunas, bonito, croakers, jacks, mojarras, grunts, tongue-soles, stingrays, cuttlefish, squid, and octopi. Spinner sharks are viviparous. Birth occurs at inshore locations during the summer months for stocks located off North America. Litter size is from 3 to 20 pups. The pups immediately move into shallow estuarine waters to seek protection from predators and find available food. EFH for the juvenile and adult life stages of the spinner shark extends to areas of the Atlantic Ocean adjacent to the PSL site. (FMNH 2018f; NOAA 2021ax)

3.7.8.6.19 Spiny Lobster

The spiny lobster inhabits tropical and subtropical waters of the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico. Adult spiny lobsters make their homes in the protected crevices and caverns of coral reefs, sponge flats, and other hard-bottomed areas. The lobsters spawn from March through August and female lobsters carry the bright orange eggs on their undersides until they turn brown and hatch. Larvae can be carried for thousands of miles by currents until they settle in shallow nearshore areas among seagrass and algae beds. They feed on small snails and crabs. The lobsters are solitary until they reach the juvenile stage, when they begin to congregate around protective habitat in nearshore areas. As they begin to mature, spiny lobsters migrate from the nursery areas to offshore reefs. EFH for all life stages of the spiny lobster extends to areas of the Atlantic Ocean adjacent to the PSL site. (FFWCC 2021ex; NOAA 2021ax)

3.7.8.6.20 Summer Flounder (Paralichthys dentatus)

Summer flounder are found in inshore and offshore waters. Adults spend most of their life on or near the sea bottom burrowing in the sandy substrate. Flounder lie in ambush and wait for their prey. They are quick and efficient predators with well-developed teeth allowing them to capture small fish, squid, sea worms, shrimp, and other crustaceans. Summer flounder usually begin to spawn at age two or three, at lengths of about 10 inches. Spawning occurs in the fall while the fish are moving offshore. Spawning migration is linked to sexual maturity, with the oldest and largest fish migrating first. As in their seasonal migrations, spawning summer flounder in the northern portion of the geographic range

spawn and move offshore (depths of 120 to 600 feet) earlier than those in the southern part of the range. Larvae migrate to inshore coastal and estuarine areas from October to May. The larvae, or fry, move to bottom waters upon reaching the coast and spend their first year in bays and other inshore areas. At the end of their first year, some juveniles join the adult offshore migration. EFH for larva, juvenile, and adult life phases of the summer flounder is provided in the Indian River Lagoon and extends to areas of the Atlantic Ocean adjacent to the PSL site. (ASMFC 2021; NOAA 2021ax)

3.7.8.6.21 Tiger Shark (Galeocerdo cuvier)

The tiger shark has a notable tolerance for many different kinds of marine habitats but generally prefers murky waters in coastal areas. It is commonly found in river estuaries, harbors, and other inlets where runoff from the land provides suitable habitat for a variety of prey items. It is often seen at the surface but has been reported at depths of 1,085 feet. Tiger sharks move into temperate waters from the tropics in warmer months and return to the tropics during the winter. Preferred prey varies depending upon geographical region, but commonly includes sea turtles, rays, other sharks, bony fishes, sea birds, dolphins, squid, various crustaceans, and carrion. Tiger sharks reproduce by ovoviviparity. The gestation period ranges from 13 to 16 months, at which time a female can give birth to anywhere from 10 to 82 pups. EFH for neonate, juvenile, and adult life stages of tiger sharks is provided in the Indian River Lagoon and extends to areas of the Atlantic Ocean adjacent to the PSL site. (FMNH 2018g; NOAA 2021ax)

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~~As discussed in Section 3.7.8.6, EFH exists near the PSL site. Twenty-one species with EFH were located within the 6-mile radius (NOAA 2018). EFH for the Atlantic sharpnose shark (Atlantic stock), bigeye thresher shark, blacknose shark (Atlantic stock), blacktip shark (Atlantic stock), bluefish, bonnethead shark (Atlantic stock), bull shark, Caribbean reef shark, coastal migratory pelagics, corals, great hammerhead shark, lemon shark, nurse shark, sailfish, sandbar shark, scalloped hammerhead shark, skipjack tuna, snapper grouper, spinner shark, spiny lobster, summer flounder, and tiger shark occur within a 6-mile radius of PSL. As discussed in Sections 3.7.3 and 3.7.7, studies have been conducted to evaluate the effects of the operation of PSL on aquatic habitat. Furthermore, PSL maintains an environmental control program to ensure that all site activities comply with applicable environmental regulations (i.e., water withdrawal increase, NPDES discharge point, thermal effluents, wastewater discharge increase, air emissions increase). Thus, the operation of PSL under the proposed SLR is expected to have minimal impact on EFH.~~**EFH for 22 species exists within the 6-mile radius, including 16 HMS (NOAA 2021ax). The species and their associated EFHs are described above in Section 3.7.8.6.**

With regard to salinity, temperature, and substrate composition, the SPEO is not expected to affect the EFH. As discussed in Section 3.7.7.2, following the request to modify the NPDES permit, a biological plan of study was conducted to determine the impacts of the EPU on the aquatic environment. Baseline monitoring commenced in August 2011 and continued through October 2012. The EPU was completed in December 2012 and the first post-EPU sampling was conducted in January 2013. Post-EPU monitoring continued through February 2015. Data collected during the various stages of the plan of study indicate that a diverse assemblage of fish and shellfish exist in the nearshore waters of the Atlantic Ocean offshore from PSL and provide no evidence that the EPU has affected the abundance or composition of faunal communities in the vicinity of the plant. Additionally, previous benthic studies demonstrated only minimal impacts to the benthic environment near PSL, both in scope and severity, indicating that there have been no adverse effects to the substrate composition. Furthermore, maintenance dredging to remove sediment build-up in the vicinity of the intake and discharge has not been conducted for approximately 17 years. There is no evidence of adverse effects associated with changes in salinity, temperature, and substrate composition.

With regard to sedimentation, chemical pollutants, and radiological effluents, the continued operation of PSL under the proposed SLR is not expected to affect the EFH. FPL has programs and permits (e.g., NDPES Permit No. FL0002208) in place to address these water quality factors. FPL maintains and implements a SWPPP. FPL also operates in accordance with the requirements contained in its spill prevention, control, and countermeasure (SPCC) plan to prevent and mitigate spills. FPL complies with radiological environmental standards, and annual sampling of environmental media indicates operation of FPL has created no adverse environmental effects or health hazards.

With regard to reduction in the prey base of habitat and removal of species with EFH during any of their life stages, the continued operation of PSL under the SLR is not expected to affect EFH. PSL operates under its current NPDES permit, which considers the cooling water intake system as interim best technology available for reducing impingement and entrainment. As described in ER Section 3.7.7.1.1, impingement studies were conducted from 1976–1978 at the request of the NRC for PSL Unit 1's OL. The dominant taxa impinged included anchovy (Anchoa spp.), grunt (Haemulidae), jack (Carangidae), croaker (Micropogonias spp.), mojarra (Gerreidae), shrimp (Panaeidae), and blue crab (*Callinectes sapidus*). Of these impinged taxa, only the Jack taxa family, which is part of the snapper grouper complex (see Table 3.7-6), has an EFH within 6 miles of the PSL site.

As described in Section 4.6.1, entrainment studies were conducted between 2006-2007 and 2017-2018.[1] The top three dominant fish types identified were those in the herring family, the combtooth blenny family, and the drum family. Brachyuran crabs were the most commonly entrained invertebrates in both years, with 70.4 percent in Year 1 and 62.0 percent in Year 2. Brachyuran crabs were followed in dominance in the two years by Anomuran crab (non-Thalassinidea) and the infraorder of ghost and mud shrimp. None of the identified dominant fish were species with EFH; however, the identified dominant species could be prey species within EFH. The unidentified egg and larval could include HMS or EFH species with oviparous reproductive strategies (bluefish, coastal migratory pelagic species, corals, sailfish, skipjack tuna, snapper-grouper species, spiny lobster, and summer flounder); however, these unidentified eggs and larva are most likely representative of the dominant identified taxa collected, which do not included HMS or EFH species.

Based on the 316(b) studies, FPL concluded that the data and analysis do not support additional means to further reduce impingement or entrainment. (FPL 2021b) Furthermore, as previously stated, biological characterization studies completed following the EPU uprate indicate that a diverse assemblage of fish and shellfish exist in the nearshore waters of the Atlantic Ocean offshore from PSL and provide no evidence that the EPU has affected the abundance or composition of faunal communities in the vicinity of the plant. Thus, entrainment and impingement are unlikely to have any adverse impacts on the prey species in EFH.

In summary, as discussed in Sections 3.7.3 and 3.7.7, impingement, entrainment, and thermal studies have been conducted to evaluate the effects of the operation of PSL on aquatic habitat. These studies concluded that operation of PSL did not have significant effects on local fish or the affected waterbodies. Furthermore, PSL maintains an environmental control program to ensure that all site activities comply with applicable environmental regulations (i.e., water withdrawal increase, NPDES discharge point, thermal effluents, wastewater discharge increase, air emissions increase). Thus, with the exception of the Caribbean reef shark, the continued operation of PSL during the period of extended operation is anticipated to have minimal adverse impact on EFH or HMS, for all life stages. Because the Caribbean reef shark is unlikely to occur in the vicinity of PSL, the continued operation of PSL during the period of extended operation is anticipated to have no adverse impact on EFH for the Caribbean reef shark for any of its life stages.

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[1] In accordance with 10 CFR 51.53(c)(3)(ii)(B) and Section 511(c) of the Clean Water Act, no evaluation of impingement, entrainment or thermal impacts is required in addition to that provided by the Clean Water Act permit and 316(a) and 316(b) determinations.

~~In addition, HMS managed by NOAA fisheries include tunas, some sharks, swordfish, billfish, and other highly sought-after fish such as Pacific mahi mahi. EFH has been designated and described for over forty Atlantic HMS. Of these designated HMS, 16 are denoted as occurring within a 6-mile radius of PSL. The Atlantic sharpnose shark (Atlantic stock), bigeye thresher shark, blacknose shark (Atlantic stock), blacktip shark (Atlantic stock), bonnethead shark (Atlantic stock), bull shark, Caribbean reef shark, great hammerhead shark, lemon shark, nurse shark, sailfish, sandbar shark, scalloped hammerhead shark, skipjack tuna, spinner shark, and tiger shark are all considered HMS within a 6-mile radius of PSL.~~

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Table 3.7-6 Species with Designated Essential Fish Habitat within 6 Miles of the PSL Site

Common Name	Scientific Name	Life Stages EFH Mapper[a]
Atlantic sharpnose shark (Atlantic stock)	*Rhizoprionodon terraenovae*	N, J, A
Bigeye thresher shark	*Alopias superciliosus*	All
Blacknose shark (Atlantic stock)	*Carcharhinus acronotus*	J, A
Blacktip shark (Atlantic stock)	*Carcharhinus limbatus*	J, A
Bluefish	*Pomatomus saltatrix*	All
Bonnethead shark (Atlantic stock)	*Sphyrna tiburo*	J, A
Bull shark	*Carcharhinus leucas*	J, A
Caribbean reef shark	*Carcharhinus perezi*	All
Coastal migratory pelagics	Multiple species: *Rachycentron canadum; Scomberomorus maculatus; Scomberomorus cavalla*	All
Corals	Multiple spp.	All
Great hammerhead shark	*Sphyrna mokarran*	All
Lemon shark	*Negaprion brevirostris*	J, A
Nurse shark	*Ginglymostoma cirratum*	J, A
Sailfish	*Istiophorus spp.*	J, A
Sandbar shark	*Carcharhinus plumbeus*	A
Scalloped hammerhead shark	*Sphyrna lewini*	J, A
Skipjack tuna	*Katsuwonus pelamis*	A
Snapper grouper	Multiple spp.	All
Spinner shark	*Carcharhinus brevipinna*	J, A
Spiny lobster	*Palinuridae spp.*	All
Summer flounder	*Paralichthys dentatus*	L, J, A
Tiger shark	*Galeocerdo cuvier*	N, J, A

~~(NOAA 2018)~~ **(NOAA 2021ax)**

a. L = larva; N = neonate; J = juvenile; A = adult; All = all life stages

New References—Ecology

Affected SLRA Enclosure 3, Attachment 2, Sections: Chapter 10

SLRA Page Numbers: 10-1; 10-6; 10-6/7; 10-7/8/9; 10-10; 10-12; 10-12/13; 10-16; 10-20/21

Description of Change: Reference citations added to Chapter 10

References pertain to: Sections 3.7.8.6 and 4.6.6

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