UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 2, 2011

Mr. Miles Croom
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701-5505

SUBJECT: REQUEST FOR CONCURRENCE ON LIST OF SPECIES WITH ESSENTIAL FISH HABITAT IN THE VICINITY OF THE ST. LUCIE PLANT, UNITS 1 AND 2 (TAC NOS. ME5091 AND ME5843)

Dear Mr. Croom:

The U.S. Nuclear Regulatory Commission (NRC) staff (the staff) is currently reviewing Florida Power & Light Co. (FPL)'s license amendment request for a power uprate at the St. Lucie Plant, Units 1 and 2 (St. Lucie) in St. Lucie County. As part of this review, the NRC staff will prepare an Essential Fish Habitat (EFH) Assessment in accordance with the Magnuson-Stevens Fishery Conservation and Management Act, as amended through 2007 by the Sustainable Fisheries Act of 1996 (MSA) to assess the potential impacts to EFH that would result from the proposed action. With this letter, the NRC staff requests your concurrence on the attached list of species with EFH in the vicinity of St. Lucie.

Site Description

The St. Lucie site lies on Jensen Beach of Hutchinson Island in St. Lucie County, Florida. The nearest municipalities are: Fort Pierce (4 miles northwest of the plant); Port St. Lucie (2.5 miles west); and Stuart (8 miles south). Figures 1, 2, and 3 (enclosed) show the St. Lucie plant and surrounding 50-mile region, 6-mile region, and site boundary, respectively.

St. Lucie discharges heated water from the plant via a cooling water discharge canal. The canal diverts water to two discharge pipes that run beneath the beach and dunes. The St. Lucie Unit 1 pipe is 12 ft in diameter and extends approximately 1,500 ft offshore. It terminates in a two-port "Y" diffuser. The St. Lucie Unit 2 discharge pipe is 16 ft in diameter, extends 3,400 ft offshore, and has a multiport diffuser.

Summary of Proposed Action

Pursuant to NRC requirements in 10 CFR Part 50.90, FPL submitted their power uprate applications[1] on February 25, 2011, for Unit 2, and April 16, 2010, for Unit 1. In its applications, FPL requested to increase the licensed core power level for each unit from 2700 megawatts-thermal (MWt) to 3020 MWt, which would result in a net increase in licensed

[1] FPL's applications are available through the web-based version of the NRC's Agencywide Documents Access and Management System (ADAMS), which can be found at https://www.nrc.gov/reading-rm/adams.html. To locate a reference in ADAMS, click on the "Simple Search" tab at the top of the web page, and enter the ADAMS accession number in the search box. The accession numbers for FPL's environmental reports associated with the EPU application are ML101160189 and ML110730282 for Units 1 and 2, respectively.

thermal power of 11.85 percent. This increase would be implemented as a 10.0 percent power uprate and a 1.85 percent measurement uncertainty recapture. The NRC considers FPL's proposed power uprate to be an extended power uprate (EPU). The NRC defines an EPU as an increase in thermal power that is greater than 7 percent and requires significant modifications to major balance-of-plant equipment such as the high pressure turbines, condensate pumps and motors, main generators, and/or transformers. If approved, this change in core thermal power level will require the NRC to amend the operating license for St. Lucie.

FPL's proposed modifications to support the proposed EPU would not result in any land disturbance outside of the established facility areas. St. Lucie would continue to use the same volume of cooling water under EPU conditions, and as a result, the entrainment and impingement rates of marine organisms would not change. However, the proposed EPU would increase the amount of heat discharged from the facility. Therefore, the NRC staff will consider the effects of the increased thermal discharge on the EFH in the vicinity of St. Lucie in the staff's EFH Assessment.

Request for Concurrence with List of EFH Species

To support preparation of the staff's EFH Assessment and to ensure compliance with the MSA, the NRC staff requests your office of the National Marine Fisheries Service (NMFS) concur with the enclosed table of EFH species in the vicinity of St. Lucie. The staff developed this list from the following documents:

1. 1998 South Atlantic Fishery Management Council (SAFMC)'s Final Comprehensive Amendment Addressing Essential Fish Habitat in Fishery Management Plans of the South Atlantic Region, and subsequent amendments;
2. 2009 SAFMC Fishery Ecosystem Plan of the South Atlantic Region;
3. 2010 Revision to NMFS Essential Fish Habitat: A Marine Fish Habitat Conservation Mandate for Federal Agencies, South Atlantic Region; and
4. 2009 NMFS Amendment 1 to the Consolidated Highly Migratory Species Fishery Management Plan, Chapter 5: Essential Fish Habitat.

Please identify any errors in this list or additional species that the staff should consider. In addition, please provide any additional information, comments, or concerns you consider appropriate on the scope of the proposed action under the provisions of the MSA.

If you have any questions or require additional information concerning this request, please contact Dr. Dennis Logan, Aquatic Biologist, at 301-415-0490, or via e-mail at Dennis.Logan@nrc.gov.

Sincerely,

/RA/ for

Laurel M. Bauer, Acting Branch Chief
Environmental Review and
Guidance Update Branch
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosures:
1. Figure 1. St. Lucie Plant and Surrounding 50-Mile Region
2. Figure 2. St. Lucie Plant and Surrounding 6-Mile Region
3. Figure 3. St. Lucie Plant Site Boundary
4. Table of EFH species

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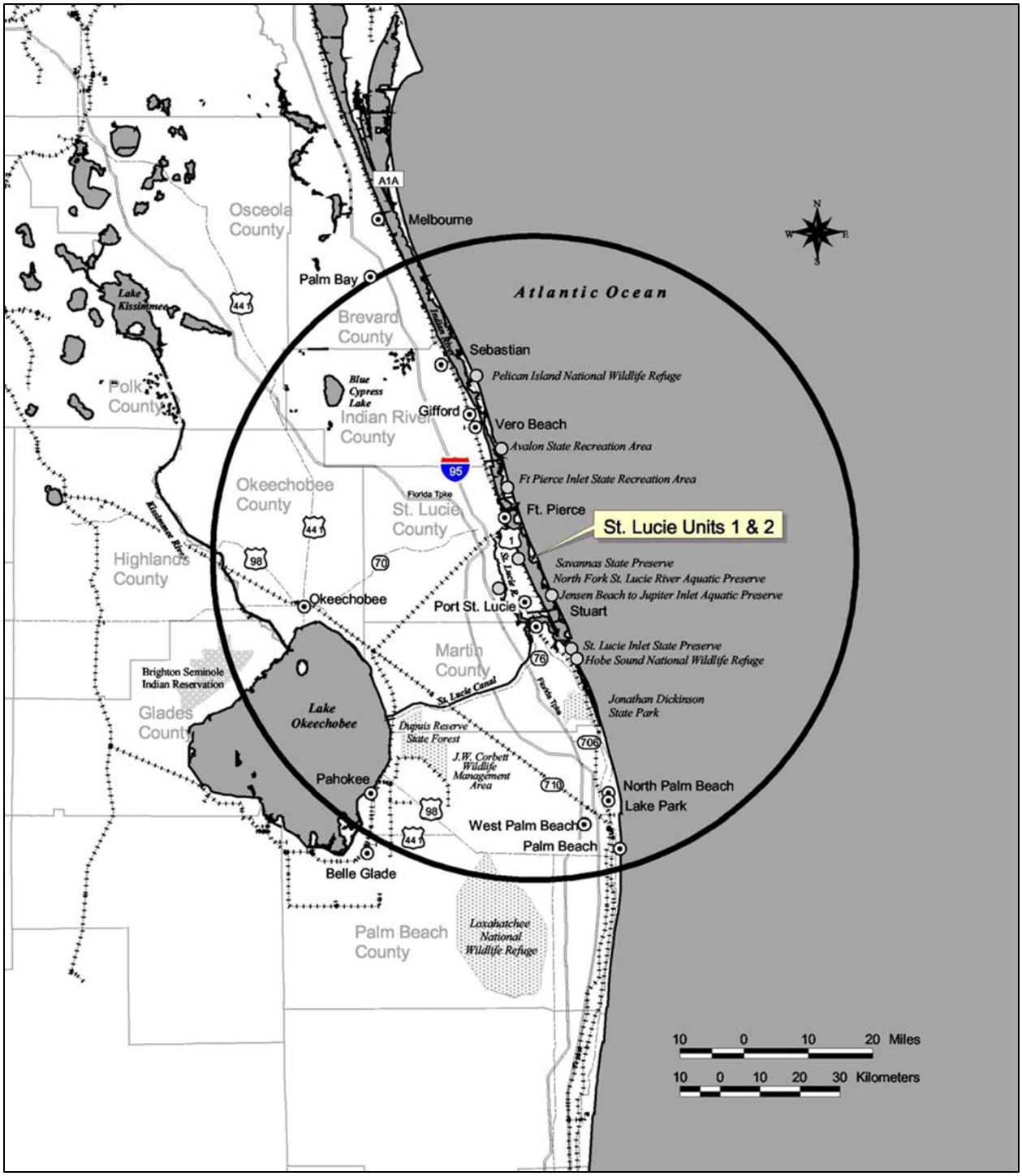
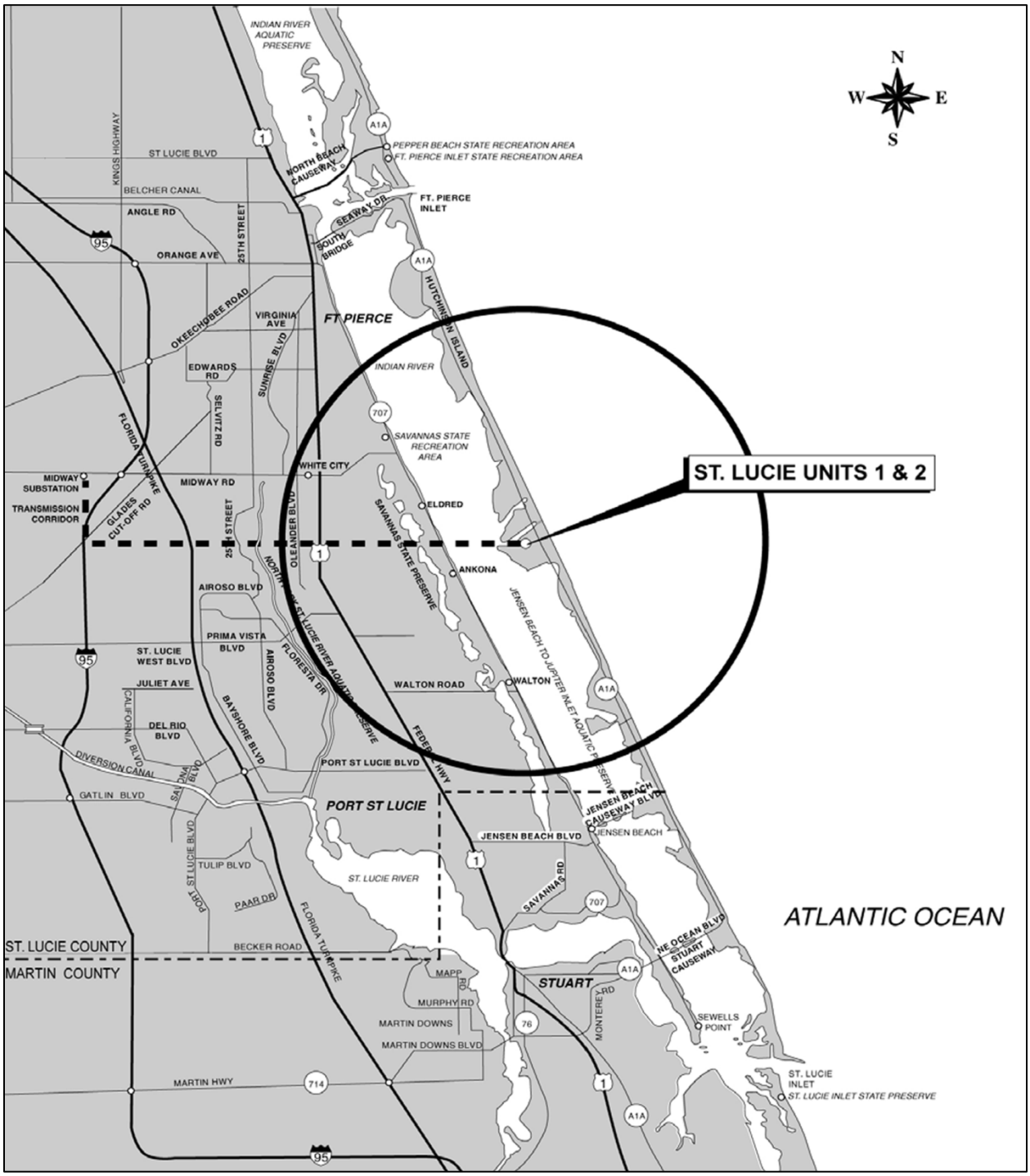
Figure 1. St. Lucie Plant and Surrounding 50-Mile Region



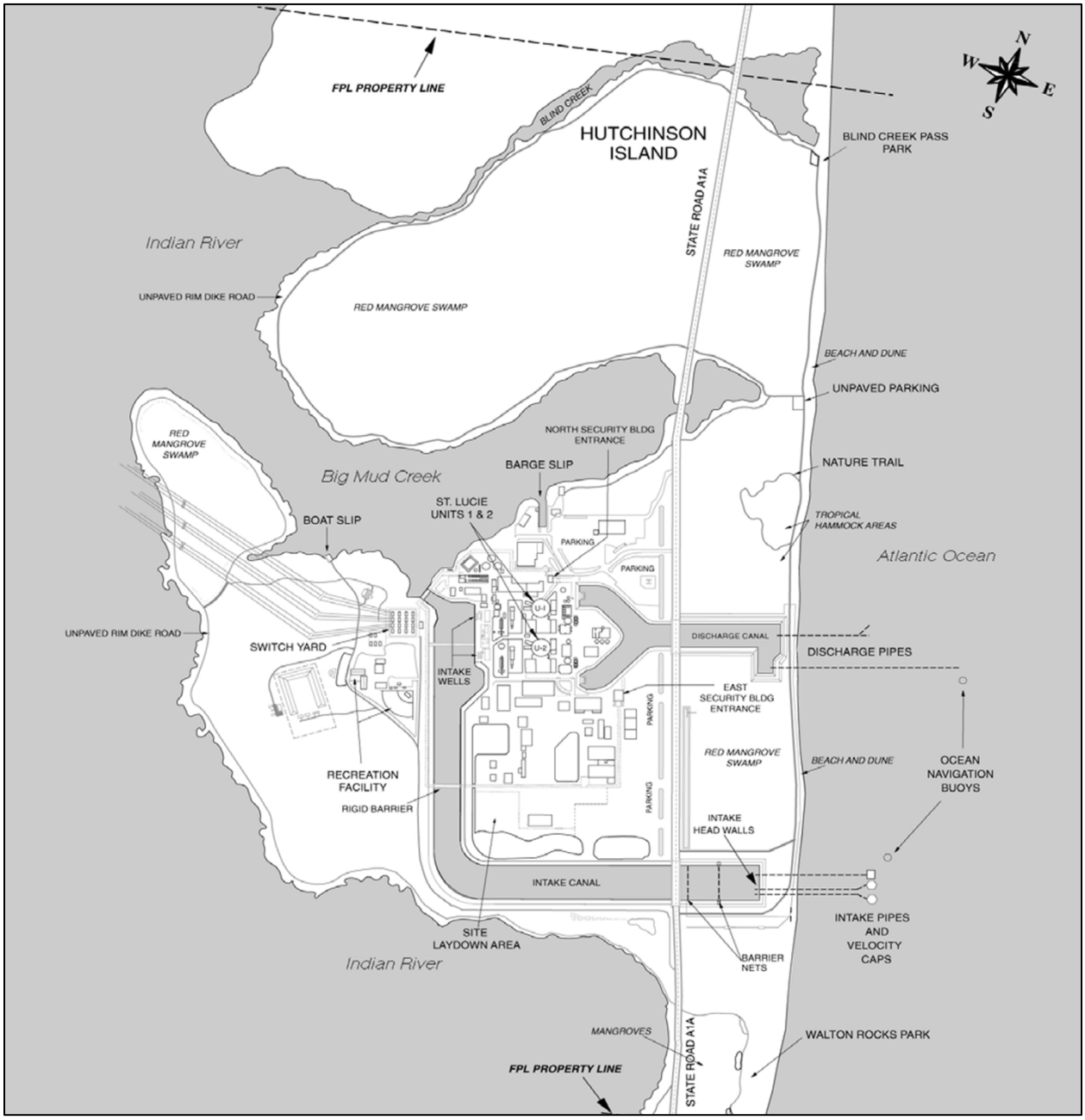
ENCLOSURE 1

Figure 2. St. Lucie Plant and Surrounding 6-Mile Region



ENCLOSURE 2

Figure 3. St. Lucie Plant Site Boundary



ENCLOSURE 3

Table 1. Species with Designated Essential Fish Habitat in the Vicinity of the St. Lucie Plant, Florida

Common Name	Scientific Name
Dolphins and Wahoos	
common dolphin	*Coryphaena hippurus*
pompano dolphin	*Coryphaena equiselis*
wahoo	*Acanthocybium solandri*
Penaeid and Deepwater Shrimp	
brown shrimp	*Farfantepenaeus aztecus*
pink shrimp	*Farfantepenaeus duorarum*
royal red shrimp	*Pleoticus robustus*
rock shrimp	*Sicyonia brevirostris*
white shrimp	*Litopenaeus setiferus*
Red Drum	
red drum	*Sciaenops ocellatus*
Golden Crab	
golden crab	*Chaeceon fenneri*
Lobster	
spiny lobster	*Panulirus argus*
Snapper Grouper Complex	
blackfin snapper	*Lutjanus buccanella*
blueline tilefish	*Caulolatilus microps*
goliath grouper	*Epinephelus itajara*
gray (mangrove) snapper	*Lutjanus griseus*
greater amberjack	*Seriola dumerili*
mutton snapper	*Lutjanus analis*
red porgy	*Pagrus pagrus*
red snapper	*Lutjanus campechanus*
scamp	*Mycteroperca phenax*
silk snapper	*Lutjanus vivanus*
snowy grouper	*Epinephelus niveatus*
speckled hind	*Epinephelus drummondhayi*
vermilion snapper	*Rhomboplites aurorubens*
Warsaw grouper	*Epinephelus nigritus*
white grunt	*Haemulon plumieri*
wreckfish	*Polyprion americanus*
yellowedge grouper	*Epinephelus flavolimbatus*

Common Name	Scientific Name
Coral	
stony coral	Order Scleractinia
black coral	Order Antipatharia
octocorals	All Orders except Pennatulacea
sea pens/sea pansies	Order Pennatulacea
Calico Scallop	
calico scallop	*Agopecten gibbus*
Sargassum Habitat	
sargassum	*Sargassum natans*
sargassum	*Sargassum fluitans*
Coastal Migratory Pelagics	
Cobia	*Rachycentron canadum*
King mackerel	*Scomberomorus cavalla*
Spanish mackerel	*Scomberomorus maculatus*
Highly Migratory Pelagics	
Atlantic albacore tuna	*Thunnus alalunga*
Atlantic bigeye tuna	*Thunnus obesus*
Atlantic bluefin tuna	*Thunnus thynnus*
Atlantic skipjack tuna	*Katsuwonus pelamis*
Atlantic yellowfin tuna	*Thunnus albacares*
Swordfish	*Xiphias gladius*
blue marlin	*Makaira nigricans*
white marlin	*Tetrapturus albidus*
sailfish	*Istiophorus platypterus*
longbill spearfish	*Tetrapturus pfluegeri*
basking shark	*Cetorhinus maximus*
great hammerhead shark	*Sphyrna mokarran*
scalloped hammerhead shark	*Sphyrna lewini*
white shark	*Carcharodon carcharias*
nurse shark	*Ginglymostoma cirratum*
bignose shark	*Carcharhinus altimus*
blacktip shark	*Carcharhinus limbatus*
bull shark	*Carcharhinus leucas*
Caribbean reef shark	*Carcharhinus perezi*
dusky shark	*Carcharhinus obscurus*
lemon shark	*Negaprion brevirostris*
night shark	*Carcharhinus signatus*
sandbar shark	*Carcharhinus plumbeus*
silky shark	*Carcharhinus falciformis*
spinner shark	*Carcharhinus brevipinna*
tiger shark	*Galeocerdo cuvier*

Common Name	Scientific Name
Highly Migratory Pelagics cont.	
sand tiger shark	*Carcharias taurus*
whale shark	*Rhincodon typus*
Atlantic angel shark	*Squatina dumeril*
bonnethead shark	*Sphyrna tiburo*
Atlantic sharpnose shark	*Rhizoprionodon terraenovae*
blacknose shark	*Carcharhinus acronotus*
finetooth shark	*Carcharhinus isodon*
longfin mako shark	*Isurus paucus*
porbeagle shark	*Lamna nasus*
shortfin mako shark	*Isurus oxyrinchus*
blue shark	*Prionace glauca*
oceanic whitetip shark	*Carcharhinus longimanus*
bigeye thresher shark	*Alopias superciliosus*
thresher shark	*Alopias vulpinus*

If you have any questions or require additional information concerning this request, please contact Dr. Dennis Logan, Aquatic Biologist, at 301-415-0490, or via e-mail at Dennis.Logan@nrc.gov.

Sincerely,
/RA/ J. Rikhoff for
Laurel M. Bauer, Acting Branch Chief
Environmental Review and
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