



# **Navigating the Endangered Species Act Section 7 Process – The Mt. Pleasant Case Study**

**Ramon Martin and Scott Meister**

**U.S. Fish and Wildlife Service**

**Unified Regions 2, 4, and 6**

**Wildlife and Sport Fish Restoration Program**

Photo Credit: SC DNR



# Case Study

## Mount Pleasant Memorial Waterfront Park



- 24-acre waterfront parcel including:
  - Mt. Pleasant Pier (1,250-foot-long)
  - Sweetgrass Cultural Arts Pavilion
  - Mount Pleasant Visitors Center
  - War Memorial
  - Café and Gift Shop
  - Nautical-themed Playground
  - Events Green



# Case Study



## Mount Pleasant Memorial Waterfront Park

- Owned by the Town of Mt. Pleasant, SC.
- Operated by Charleston County Park and Recreation Commission (CCPRC).
- Opened in 2009 and has become an extremely popular recreational attraction but lacks access from the water.





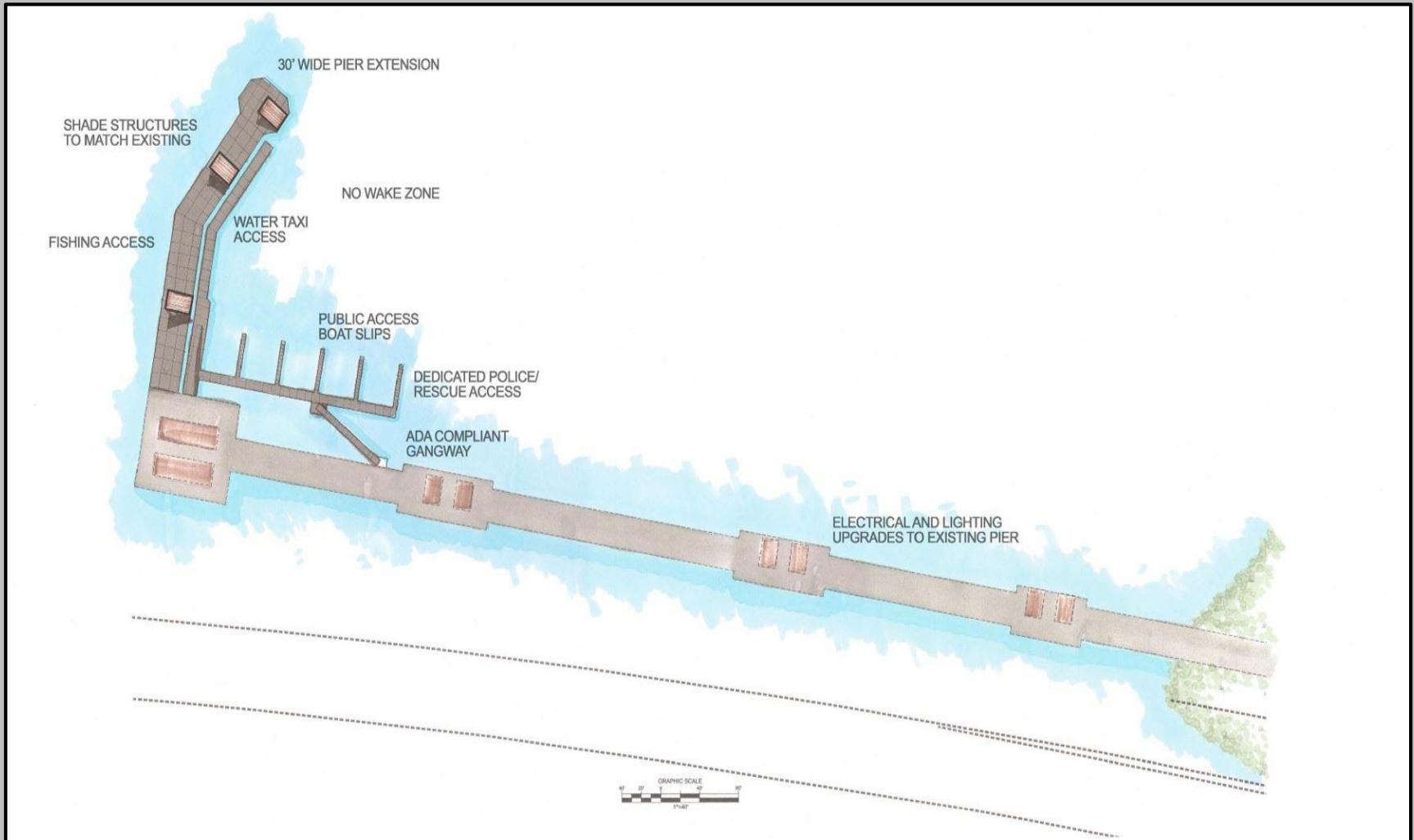
# Case Study

## Transient Boater Infrastructure Development Project

- *Purpose is to provide transient day dockage at Memorial Waterfront Park so that visiting boaters may access the park from the water.*
- *\$1,215,076 Federal (49%), \$1,264,671 State (51%)*
- Objectives:
  - Create eight (8) 40-foot-long transient day dockage slips
  - Create 136 linear feet of side-tie day dockage
  - Addition of two (2) ADA-compliant 6-foot by 80-foot aluminum gangways
  - Addition of integrated fixed pier/wave fence
  - Addition of marker buoys (debris)



# Case Study





The logo is circular with the words "SPORT FISH" at the top and "RESTORATION" at the bottom. In the center is a stylized illustration of a fish jumping out of the water, with a small figure of a person fishing below it.



# Case Study



SOBA 2019 Annual Boating Access Education & Training Symposium



# Case Study


## Public Scoping

8/27/2019 The Destruction of the Mt Pleasant Pier - Updated 6/13/2019 | Coastal Angler & The Angler Magazine

**CHARLESTON EDITION**  
**COASTAL ANGLER**  
*Magazine*

### The Destruction Of The Mt Pleasant Pier – Updated 6/13/2019

CHARLESTON EDITION  
May 30, 2018, 6:06 PM



The Mount Pleasant Pier, also known as the Mount Pleasant Fishing Pier, a pier that has been titled a fishing pier from day one – a pier that is for everyone.

The Mount Pleasant Pier resides in the Charleston Harbor, nestled in a flat on the Wando side. A pier that has become popular for so many reasons, one of them being its serenity.

Local Carolinians and tourists alike have come to know this pier and have become attracted and addicted to its small wonders. Under and around the pier's foundations and along its side is an estuarine system, which harbors all kinds of life.

Others and myself have seen Sturgeon leaping out of the water on a sunny day and pods of Dolphin doing the same. We have leaned over the side off of the end of the pier and watched Manatees dance

<https://coastalanglermag.com/the-destruction-of-the-mt-pleasant-pier>


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8/27/2019 Mount Pleasant likely to scrap harbor pier extension and boat slips for restaurant, dog park | News | postandcourier.com

[https://www.postandcourier.com/news/mount-pleasant-likely-to-scrap-harbor-pier-extension-and-boat-slips-for-restaurant-dog-park/article\\_20f8c9e7-77d1-4e9f-bf8d-8d9a.html](https://www.postandcourier.com/news/mount-pleasant-likely-to-scrap-harbor-pier-extension-and-boat-slips-for-restaurant-dog-park/article_20f8c9e7-77d1-4e9f-bf8d-8d9a.html)

### Mount Pleasant likely to scrap harbor pier extension and boat slips for restaurant, dog park

BY DAVID BLAKE DELANEY POSTANDCOURIER.COM  
MAY 11, 2019



After years of planning, the town of Mount Pleasant is poised to scrap an extension designed to add boat slips — in its place, the town is planning a restaurant, a dog park and improvements to parking.

**WATERFRONT PARK PIER EXTENSION PROJECT**

**MOUNT PLEASANT** — After years of planning and up to \$700,000 already spent, the town is poised to scrap the extension of the Waterfront Memorial Park pier.

The extension was to add boat slips for daytime use and the possibility of future water taxi or ferry service.

Instead, the town may spend the pier extension money on a new restaurant, a dog park and improvements to parking.

Mayor Will Haynie said extending the pier would cost the town \$5.9 million, plus another \$1.2 million in federal funds "to build essentially 10 boat slips."

Haynie's closest ally on Town Council, Joe Buntos, said the cost seems too high, even if walking away from the project means giving up the federal grant and the money already spent.

"It's not that we're throwing away \$3.5 million, it's that we're not spending \$5 million," he said at a council meeting Tuesday.

The money would actually be spent, but on different planned projects at the park that haven't been funded. Doing so could potentially free up town funds for other priorities, such as drainage improvements in the Old Village, at a time when officials have expressed concerns about the town's long-term finances.

[https://www.postandcourier.com/news/mount-pleasant-likely-to-scrap-harbor-pier-extension-and-boat-slips-for-restaurant-dog-park/article\\_20f8c9e7-77d1-4e9f-bf8d-8d9a.html](https://www.postandcourier.com/news/mount-pleasant-likely-to-scrap-harbor-pier-extension-and-boat-slips-for-restaurant-dog-park/article_20f8c9e7-77d1-4e9f-bf8d-8d9a.html)

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8/27/2019 Mount Pleasant's finance committee will discuss extending the Waterfront Park Pier on Tuesday


News 2

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LOCAL NEWS

### Mount Pleasant's Waterfront Park Pier expansion in the works

News 2 Today: Mt P Pier Extension



**WATERFRONT PARK PIER EXTENSION PROJECT**  
MOUNT PLEASANT

02:45 / 01:21

by: Olivia Peterson  
Posted: Jun 4, 2019 / 07:48 AM EDT / Updated: Jun 4, 2019 / 03:22 PM EDT

MOUNT PLEASANT (WISN) — Tuesday, the Mount Pleasant Town Council's Finance Committee discussed potentially extending the Mount Pleasant Waterfront Park pier.

Right now, the town is deciding between two options: adding docks to the pier or adding different amenities to the park. The town spent nearly \$300,000 studying the pier to determine if the extension is necessary.

<https://www.courtside.com/news/local/news/mount-pleasant-waterfront-park-pier-expansion-in-the-works>

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# Case Study

## Public Scoping

6/27/2019 Mt. Pleasant looking to extend pier, add docks at Waterfront Park

NEWS

### Mt. Pleasant looking to extend pier, add docks at Waterfront Park



THE LOWCOUNTRY'S NEWS LEADER  
MT. PLEASANT COULD EXPAND WATERFRONT PARK  
PROJECT INCLUDES EXTENDING PIER, ADDING DOCKS  
FORECAST: ISLE OF PALMS - 8 AM: PARTLY CLOUDY 76°

1:05 1:17

VIDEO: Mt. Pleasant looking to extend pier, add docks at Waterfront Park

By Rob Way | June 4, 2019 at 6:26 AM EDT - Updated June 5 at 9:33 AM

MOUNT PLEASANT, S.C. (WCSC) - Mount Pleasant's Waterfront Park could soon be getting an addition as part of a larger project to increase access to the water.

The town is looking at extending the park's pier and adding floating docks.

The move would give boaters access to the park for the first time ever, according to Lee Cave, the town's department of planning and development's deputy director.

"The pier and associated floating docks will provide much needed access from the water to the pier and park," Cave said. "Currently, there is no access from the water."


<https://www.thelocalnews.com/2019/06/04/mount-pleasant-looking-extend-pier-add-docks-waterfront-park/>

6/27/2019 Day trippers — This one's for you Pier expansion to include transient boat slips | Archives | moultrie.com

<https://www.moultrie.com/archives/day-trippers-this-one-s-for-you-pier-expansion-to-include-transient-boat-slips>

### Day trippers — This one's for you Pier expansion to include transient boat slips

Sully Witte Aug 9, 2016



Marina facilities and a pier extension at Memorial Waterfront Park are being proposed on the Wando River side of the park.

When Mount Pleasant Memorial Waterfront Park was opened in 2009, citizens marveled at the beautiful outcome. It's expanse cast against the backdrop of the Wando River and Charleston Harbor was something to behold.

The popularity of the park is evident in the hustle and bustle found there daily.

And thanks to a \$1.2 million Boating Infrastructure Grant, Tax Incremental Financing money and Accommodations Tax Money, the Town of Mount Pleasant Bids and Purchases Committee approved the expenditure of \$924,000 for design and construction administration services so that phase two of the park can get underway.

In January of 2015, the committee chose Johnson, Laschober & Associates to conduct the design, engineering and planning.

<https://www.moultrie.com/archives/day-trippers-this-one-s-for-you-pier-expansion-to-include-transient-boat-slips>



# Case Study

## Timeline

- March 2015 – The Waterfront Park expansion project was initially conceived by the Town and included master planning for park improvements and the expansion of the pier as well as the development and submittal of a Boating Infrastructure Grant Application to SCDNR/USFWS to provide floating docks for transient boaters.
- April 2016 – The grant was awarded by USFWS in the amount of \$1.215M Federal funds.
- The grant required all necessary compliance work to be completed by September 2018 (3-years from Award Date FY start) to ensure receipt of grant funds.
- May 2016 – Regulatory permitting work was initiated with State and Federal regulatory agencies.



# Case Study

- **June 2016 – USFWS Intra-service Section 7 consultation completed (NA).**
- **July 2016 – SHPO issues concurrence of No Effect.**
- **April 2017 – Corps of Engineers (USACE) publishes public notice for SAC-2004-13673 and NMFS responds with concerns of adverse impacts to EFH and listed species.**
- **September 2017 – Tribal consultation completed.**
- **December 2017 – USACE Charleston District responded to NMFS EFH conservation recommendations with permit conditions but doesn't fully address ESA concerns.**
- **May 2018 – Regulatory permits were issued for the project by state (SCDHEC-OCRM) and federal (USACE) agencies.**
- **June 2018 – USFWS obligates funds under conditions that no construction can take place until compliance requirements are met.**



# Case Study

- **December 2018 – USFWS initiated ESA consultation with NMFS for listed species under their jurisdiction.**
- **March of 2019 – NMFS decided to move forward with developing a Biological Opinion (B.O.) for the project.**
- **April 2019 – NMFS officially initiated the B.O. for the project and informed all parties that the process could take up to 135 days to complete.**
- **June 2019 – SCDNR granted 12-month no-cost extension through June 2020.**
- **September 2019 – NMFS has not released the results of the B.O. Project still on hold.**





# NMFS ESA SECTION 7

❖ Activities subject to the ESA section 7 consultation process include activities on Federal lands and activities on private or state lands requiring a permit from a Federal agency or some other Federal action, including funding. **In the marine environment, activities subject to the ESA section 7 consultation process include activities in Federal waters and in state waters that (1) have the potential to affect listed species or critical habitat, and (2) are carried out by a Federal agency, need a permit or license from a Federal agency, or receive funding from a Federal agency.**

Photo Credit: SC DNR





# NMFS ESA SECTION 7

- ❖ Memorandum of Understanding Between the USFWS and the National Marine Fisheries Service (NMFS) Regarding Jurisdictional Responsibilities and Listing Procedures Under the Endangered Species Act of 1973 – Effective August 28, 1974.
- ❖ NMFS has jurisdiction over species in the following classes, orders, or groups of animals: all species of the order Cetacea, Pinnipedia, other than walruses; all commercially harvested species of the phylum Mollusca and the class Crustacea which spend all their lifetime in estuarine waters; and all nonmammalian species except members of the classes Aves, Amphibia, and Reptilia, which either (i) reside the major portion of their lifetimes in marine waters; or (ii) are species which spend part of their lifetime in estuarine waters,.....

Photo Credit: SC DNR



# NMFS ESA SECTION 7



❖ The USFWS and the NMFS share responsibilities for administering the Act. The Lists of Endangered and Threatened Wildlife and Plants are found in 50 CFR 17.11 and 17.12 and the designated critical habitats are found in 50 CFR 17.95 and 17.96 and 50 CFR part 226. Endangered or threatened species under the jurisdiction of the NMFS are located in 50 CFR 222.23(a) and 227.4. If the subject species is cited in 50 CFR 222.23(a) or 227.4, the Federal agency shall contact the NMFS. For all other listed species the Federal Agency shall contact the USFWS.

Photo Credit: SC DNR



# NMFS ESA SECTION 7



❖ **163 marine species, DPS and ESUs under NMFS ESA Jurisdiction.**

❖ **2 proposed -**

(Bryde's whale, GOM, 2016, E)  
(*Nautilus pompilius*, AS, 2017, T)

❖ **Critical Habitat Designated for ≈32 species, DPS, or ESUs.**



## Southeast Region Endangered and Threatened Species and Critical Habitats under the Jurisdiction of the NOAA Fisheries Service

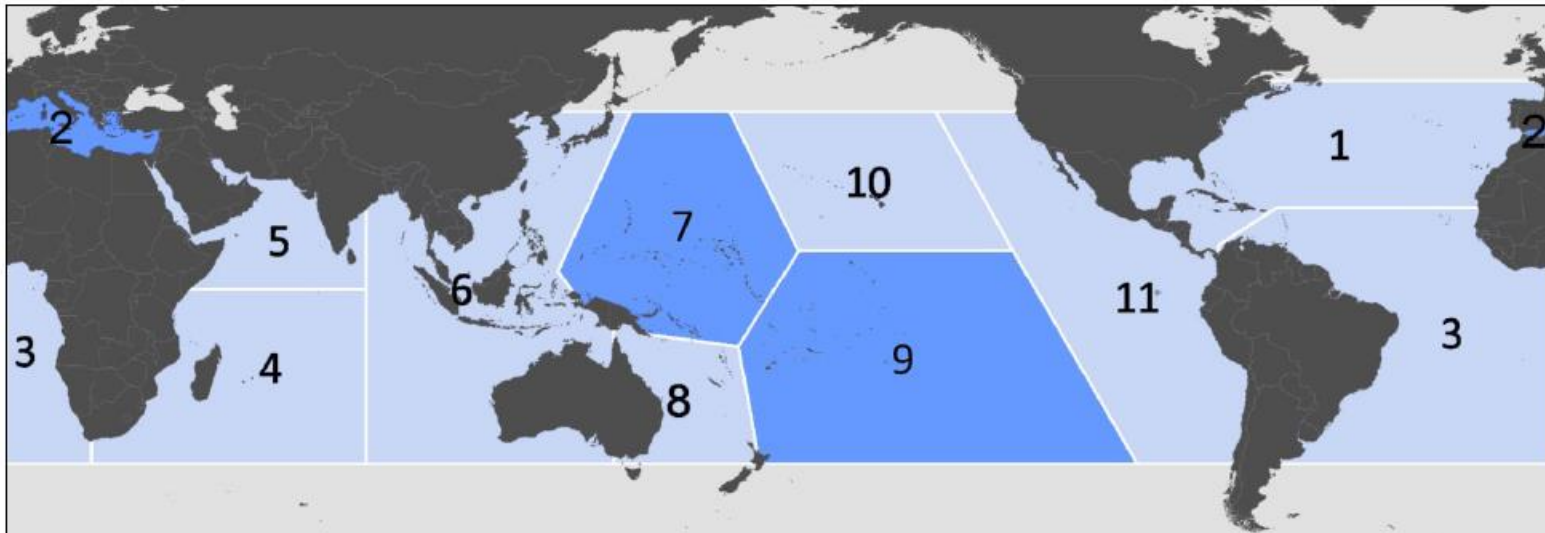


Listed Species	Scientific Name	Status	Date Listed
<b>Marine Mammals</b>			
blue whale	<i>Balaenoptera musculus</i>	Endangered	12/02/70
finback whale	<i>Balaenoptera physalus</i>	Endangered	12/02/70
humpback whale	<i>Megaptera novaeangliae</i>	Endangered	12/02/70
North Atlantic right whale	<i>Eubalaena glacialis</i>	Endangered	12/02/70
sei whale	<i>Balaenoptera borealis</i>	Endangered	12/02/70
sperm whale	<i>Physeter macrocephalus</i>	Endangered	12/02/70
<b>Turtles</b>			
green sea turtle	<i>Chelonia mydas</i>	Threatened <sup>1</sup>	07/28/78
hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered	06/02/70
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	12/02/70
leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered	06/02/70
loggerhead sea turtle	<i>Caretta caretta</i>	Threatened <sup>2</sup>	09/22/11
<b>Fish</b>			
Atlantic sturgeon	<i>Acipenser oxyrinchus oxyrinchus</i>	Endangered <sup>3</sup>	02/06/12
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Threatened	09/30/91
shortnose sturgeon	<i>Acipenser brevirostrum</i>	Endangered	03/11/67
smalltooth sawfish	<i>Pristis pectinata</i>	Endangered	04/01/03
<b>Invertebrates</b>			
pillar coral	<i>Dendrogyra cylindrus</i>	Threatened	09/10/14
rough cactus coral	<i>Mycetophyllia ferox</i>	Threatened	09/10/14
lobed star coral	<i>Orbicella annularis</i>	Threatened	09/10/14
mountainous star coral	<i>Orbicella faveolata</i>	Threatened	09/10/14
boulder star coral	<i>Orbicella franksi</i>	Threatened	09/10/14
elkhorn coral	<i>Acropora palmata</i>	Threatened	05/09/06
staghorn coral	<i>Acropora cervicornis</i>	Threatened	05/09/06
<b>Seagrasses</b>			
Johnson's seagrass	<i>Halophila johnsonii</i>	Threatened	09/14/98

<https://www.fisheries.noaa.gov/topic/endangered-species-conservation>



# NMFS ESA SECTION 7



Threatened (light blue) and endangered (dark blue) green turtle distinct population segments (DPSs):

1. North Atlantic, 2. Mediterranean, 3. South Atlantic, 4. Southwest Indian, 5. North Indian, 6. East Indian-West Pacific, 7. Central West Pacific, 8. Southwest Pacific, 9. Central South Pacific, 10. Central North Pacific, and 11. East Pacific.

Final Rule to list 11 DPSs of green sea turtles as threatened or endangered under the ESA published on 4/6/2016 (81 FR 20057).

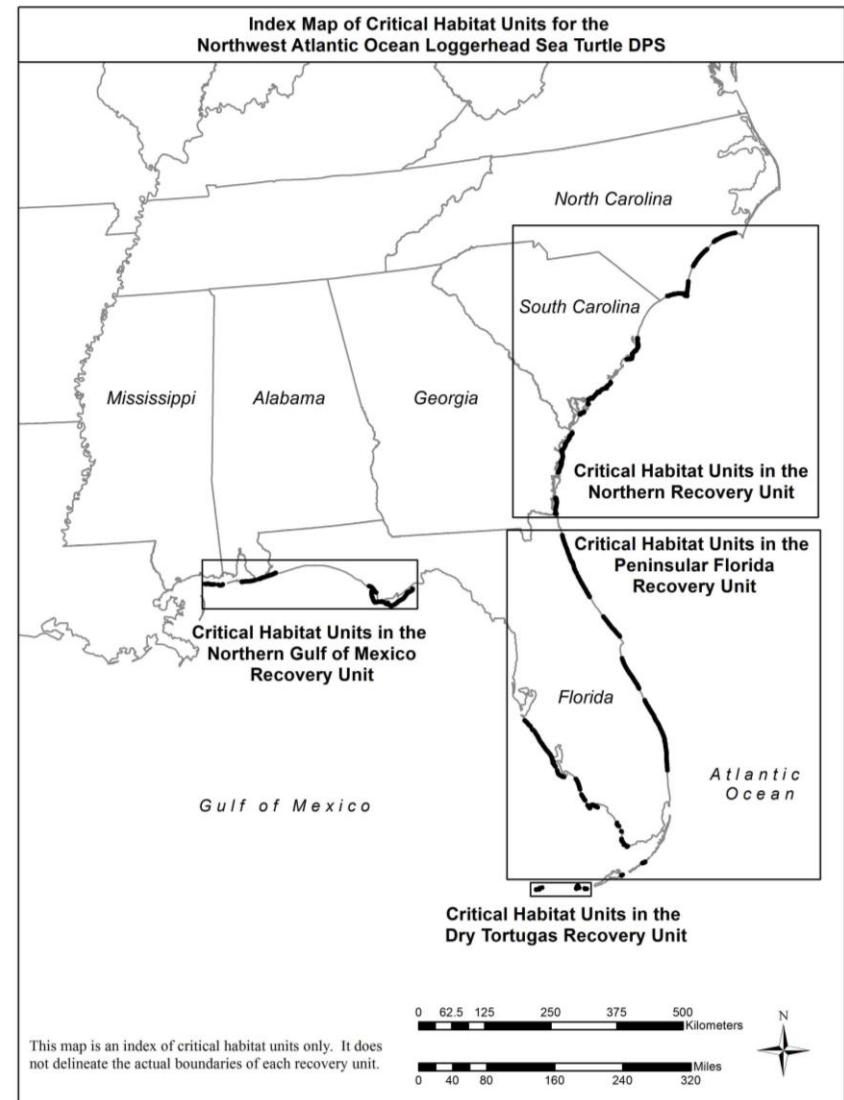
Photo Credit: SC DNR





# NMFS ESA SECTION 7

- ❖ NMFS designated Critical Habitat for the threatened Northwest Atlantic Ocean Distinct Population Segment of Loggerhead Sea Turtle on July 10, 2014 (79 FR 39856).
- ❖ Loggerhead sea turtle (*Caretta caretta*) critical habitat for nearshore reproductive habitat covers areas adjacent to nesting beaches that are used by hatchlings to egress to the open-water environment as well as by nesting females to transit between beach and open water during the nesting season.



Source: 79 FR 39856





# NMFS ESA SECTION 7

- ❖ Critical habitat for endangered North Atlantic right whales in the northwestern Atlantic Ocean, including areas that will support calving and nursing was designated on February 26, 2016 ([81 FR 4837](#)). The areas being designated as critical habitat contain approximately 29,763 nm<sup>2</sup> of marine habitat in the Gulf of Maine and Georges Bank region (Unit 1) and off the Southeast U.S. coast (Unit 2).

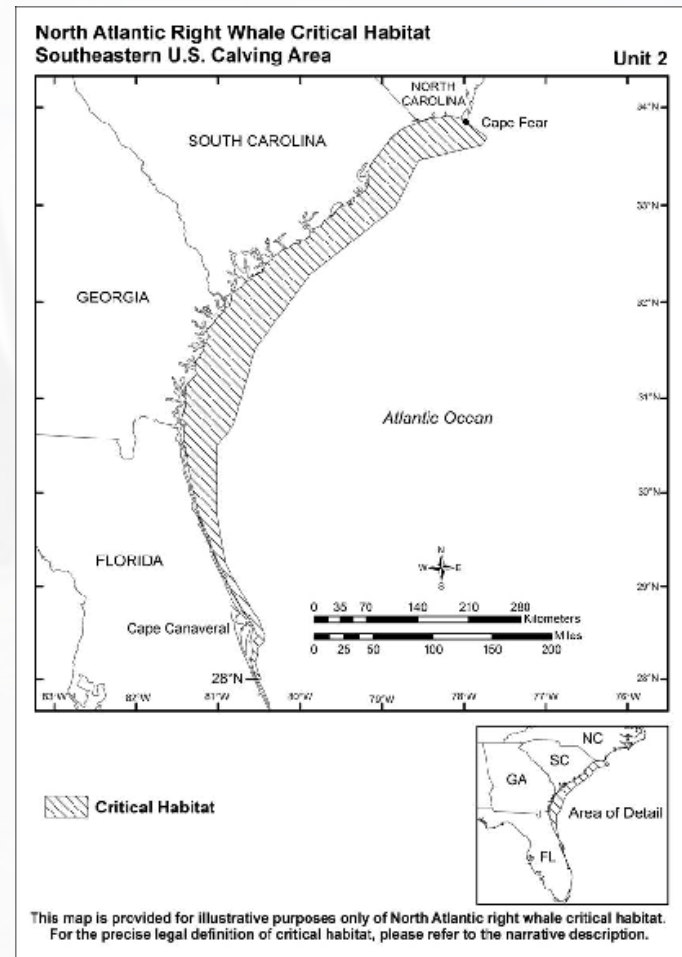


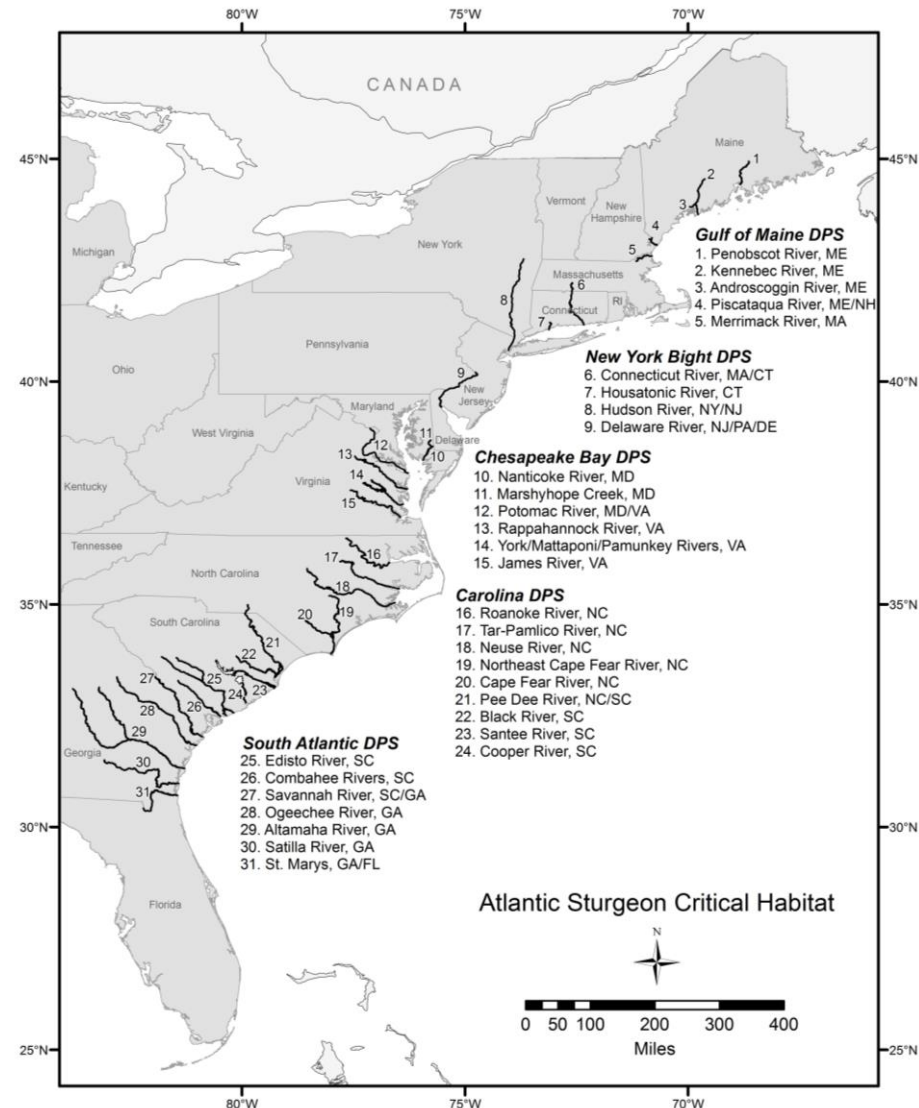
Photo Credit: SC DNR



# NMFS ESA SECTION 7



- ❖ NMFS designated Critical Habitat for the Threatened Gulf of Maine and the Endangered New York Bight, Chesapeake Bay, Carolina, and South Atlantic Distinct Population Segments of Atlantic Sturgeon on August 17, 2017 (82 FR 39160).
- ❖ Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) critical habitat covers most major river systems and aquatic habitat in the Northeast and Southeast where they historically occurred.



Source: NOAA



# NMFS ESA SECTION 7

❖ Corps of Engineers Permit may not be covered by a NMFS ESA Section 7 consultation. Please check with the Corps District Office to see if ESA Section 7 consultation with NMFS has occurred and request documentation. Corps of Engineers and NMFS are developing additional guidance on consultation procedures under GP and RP activities.

Photo Credit: SC DNR





# NMFS ESA SECTION 7

❖ USFWS will need to consult with NMFS if proposed activities affect listed species under their jurisdiction (50 CFR 222.23(a) and 227.4) and aren't covered through a COE permit consultation.

❖ USFWS can designate a State as the non-federal representative for the purpose of informal consultation with NMFS (50 CFR 402.08).

Although, the ultimate responsibility for compliance with section 7 remains with the Federal agency.

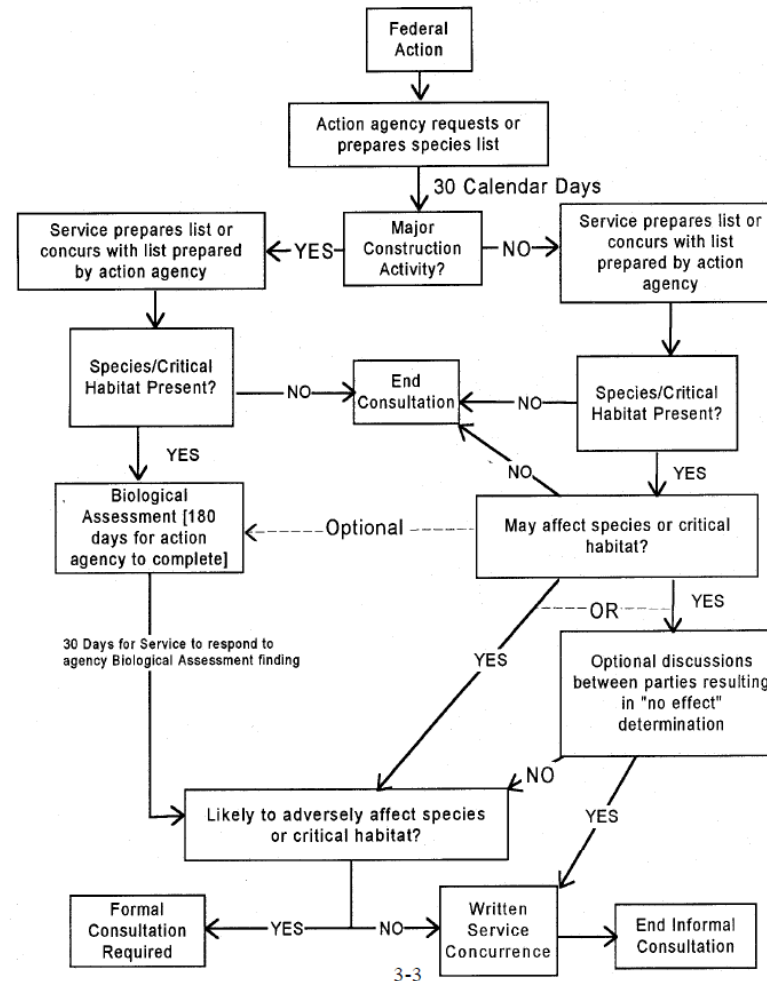


Photo Credit: SC DNR



# NMFS ESA SECTION 7

Figure 3-1. Informal consultation process



Source: USFWS and NMFS 1998





# NMFS ESA SECTION 7



❖ Section 9 of the Endangered Species Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Therefore, if: (1) any threatened or endangered species are incidentally taken, (2) new information reveals effects of the agency action that may affect listed species or critical habitat, (3) the project is subsequently modified in a manner that causes an effect to listed species or critical habitat, or (4) a new species is listed or critical habitat designated that may be affected by the activities funded under this award, this information must be immediately reported .

Photo Credit: SC DNR



# NMFS ESA SECTION 7

- ❖ Pilot project: Issuing informal consultations posing minimal effects to NMFS ESA-protected resources and low litigation risk
- ❖ NMFS has found that many informal consultations under section 7 of ESA are routine and non-controversial involving proposed agency actions that pose minimal effects to NMFS ESA-listed species and/or designated critical habitat and low litigation risk.
- ❖ Agency actions that meet this criteria may differ in each Region.



Photo Credit: SC DNR



# NMFS ESA SECTION 7

## Element 2-Standards for AA Consultation Request Documents to be Placed on the Expedited Track

- An adequate description of the proposed action.
- An adequate description of the action area.
- Identification of each ESA-listed species and/or designated critical habitat that may be affected by the action along with a reference to the most recent listing/designation notice in the Federal Register and any applicable species recovery plans.
- An adequate discussion of each potential effect on the ESA-listed species and/or essential features of designated critical habitat along with an adequate rationale why the effect meets the applicable not likely to adversely affect standard (discountable, insignificant, entirely beneficial).
- Certification that the action agency has used the best scientific and commercial data available.

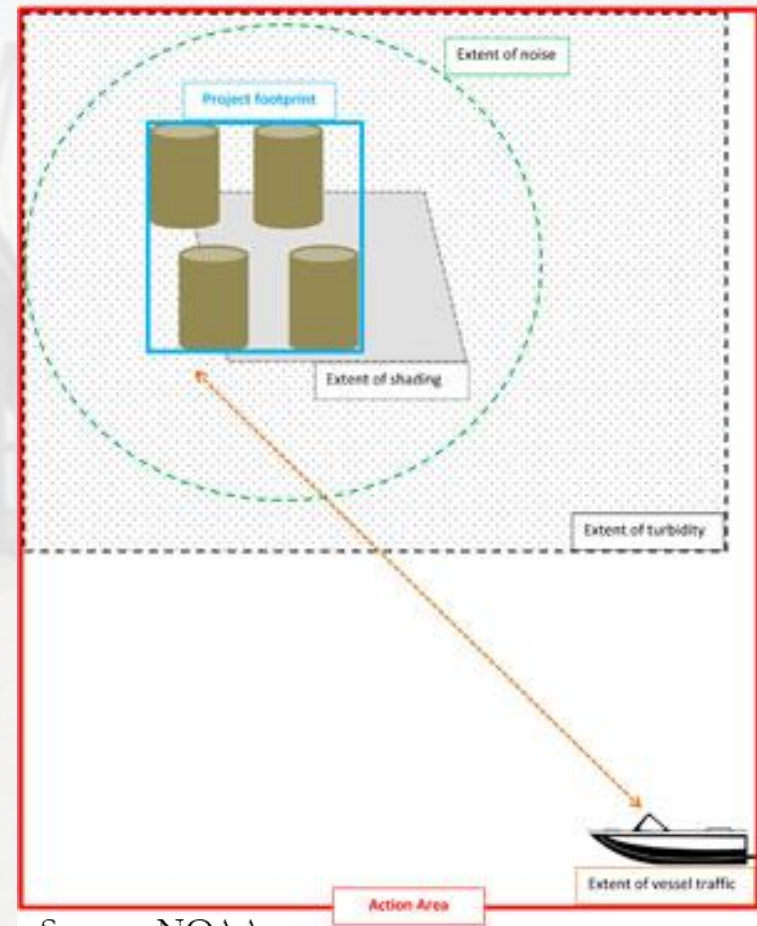
Photo Credit: SC DNR





# NMFS ESA SECTION 7

- ❖ The action area is defined as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action”(50 CFR 402.02).
- ❖ This includes the project’s footprint as well as the area beyond it that may experience direct or indirect effects that would not occur but for the action.



Source: NOAA

Photo Credit: SC DNR



# NMFS ESA SECTION 7

- ❖ All coastal States should submit a BA and/or the NMFS Endangered Species Act Section 7 Checklist with their grant and/or permit application if Project activities have the potential to affect NMFS listed species or critical habitat.
- ❖ Federal Agency will need to evaluate whether Project Activities will have a “No Effect”, “Not Likely to Adversely Affect”, or “Adversely Affect” listed species and consult with NMFS accordingly.

**NMFS Endangered Species Act Section 7 Checklist**

**A) Project Identification**

Lead Action Agency:

Agency Contact: (Phone, E-mail)

Applicant Name:

Project Name & ID #:

**B) Project Location**

1. Address and description of property (i.e., public, residential, commercial, industrial, etc.):

2. Latitude & Longitude:  
i. Decimal Degrees and Datum (e.g., 27.71622° N, 80.25174° W (NAD83))  
ii. Online conversion: <http://transition.fcc.gov/mib/audio/bickel/DODMMS-decimal.html>

3. Waterbody:  
i. Name of the body of water on which the project is located (e.g., St. Johns River, Tampa Bay, Suwannee River)  
ii. If riverine or estuarine, approximate navigable distance from marine environment (e.g., Atlantic, Gulf of Mexico)

**C) Project Site Description**

1. Existing Structures: (Describe current and historical structures in project area.)  
i. Marina, seawall, riprap, dock, etc.  
ii. Number of slips, size (area of overwater structures), liner footage, location, orientation, etc.

2. Existing Conditions: (Describe the project area.)  
i. Substrate type, water quality, depth, current, etc.

3. Seagrasses & Other Marine Vegetation:  
i. If a benthic survey was conducted, provide date of survey and a copy of the report.  
ii. Species area of coverage estimates and density of species coverage (percentage) estimates.  
iii. Location relative to proposed structures. Provide detailed sketch of action area and location of seagrasses.

4. Mangroves:  
i. Species (red, black, or white)  
ii. Area (square footage and linear footage). Provide detailed sketch of action area and location of mangroves.

Photo Credit: SC DNR





# NMFS ESA SECTION 7

## ROUTE(S) OF EFFECT TO SPECIES/CRITICAL HABITAT

- ❖ Vessel Strikes
- ❖ Hooking and Entanglement from Recreational Fishing
- ❖ Turbidity
- ❖ Noise (i.e. pile installation) may cause physical and/or behavioral impacts.
- ❖ Critical Habitat essential features/primary constituent elements (PCEs) – for sturgeon includes impacts to nursery/foraging habitat, fish passage, and water quality.

Photo Credit: SC DNR



# NMFS ESA SECTION 7



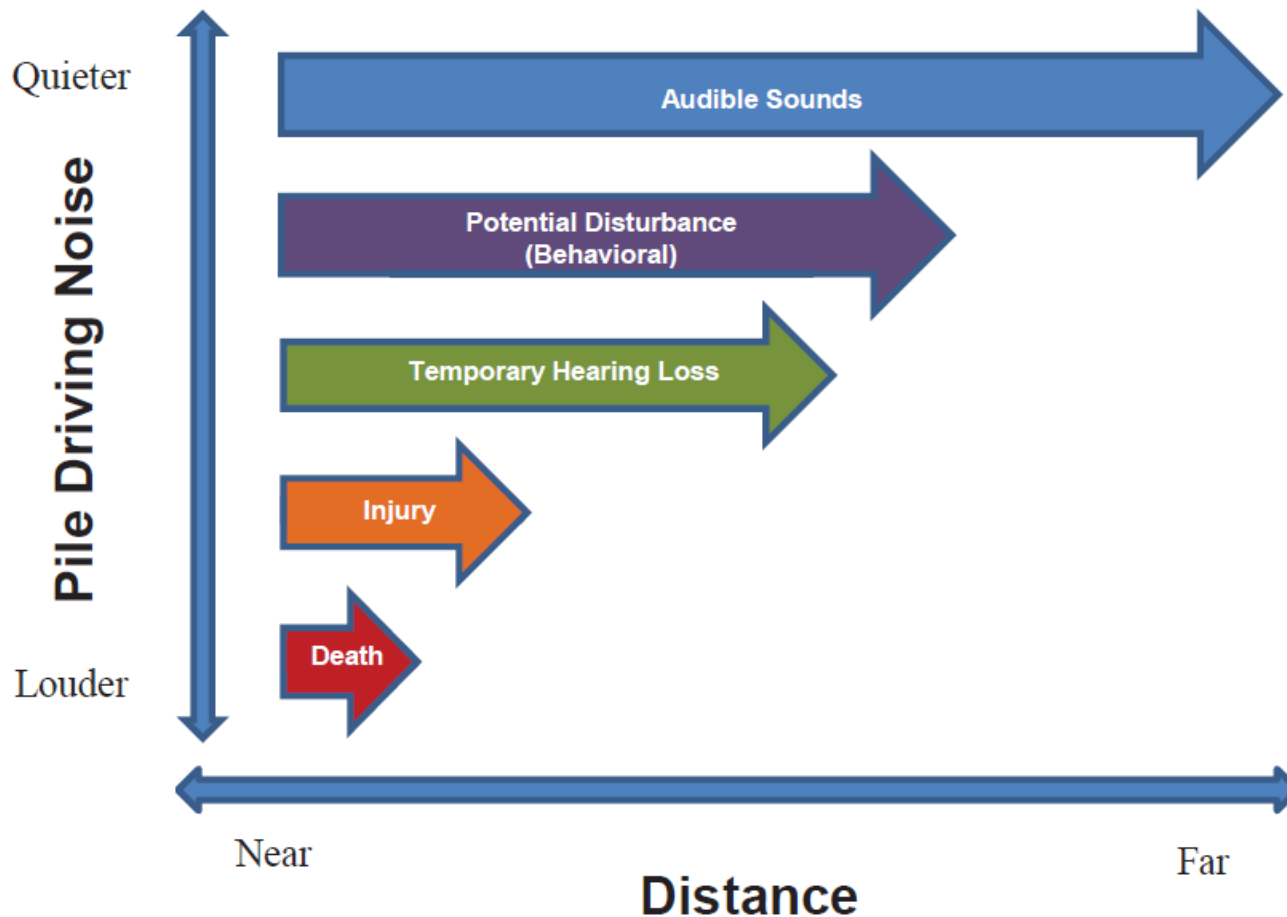
**The basic information on the pile driving activity required to conduct an effect analysis is:**

- **the material composition of the piles (i.e. metal, concrete, wood, composite)**
- **the type of piles (i.e. sheet, H, tubular, square, etc.)**
- **the diameter of piles**
- **the number of piles driven**
- **the number of hammer strikes per pile**
- **the duration to drive a single pile**
- **the number of piles driven per day**
- **time of year and project duration**
- **type of pile-driving method (e.g. hydraulic, diesel, vibratory hammer)**
- **vessels required**
- **depth, bottom type, and habitat**
- **map of project area**

Photo Credit: SC DNR



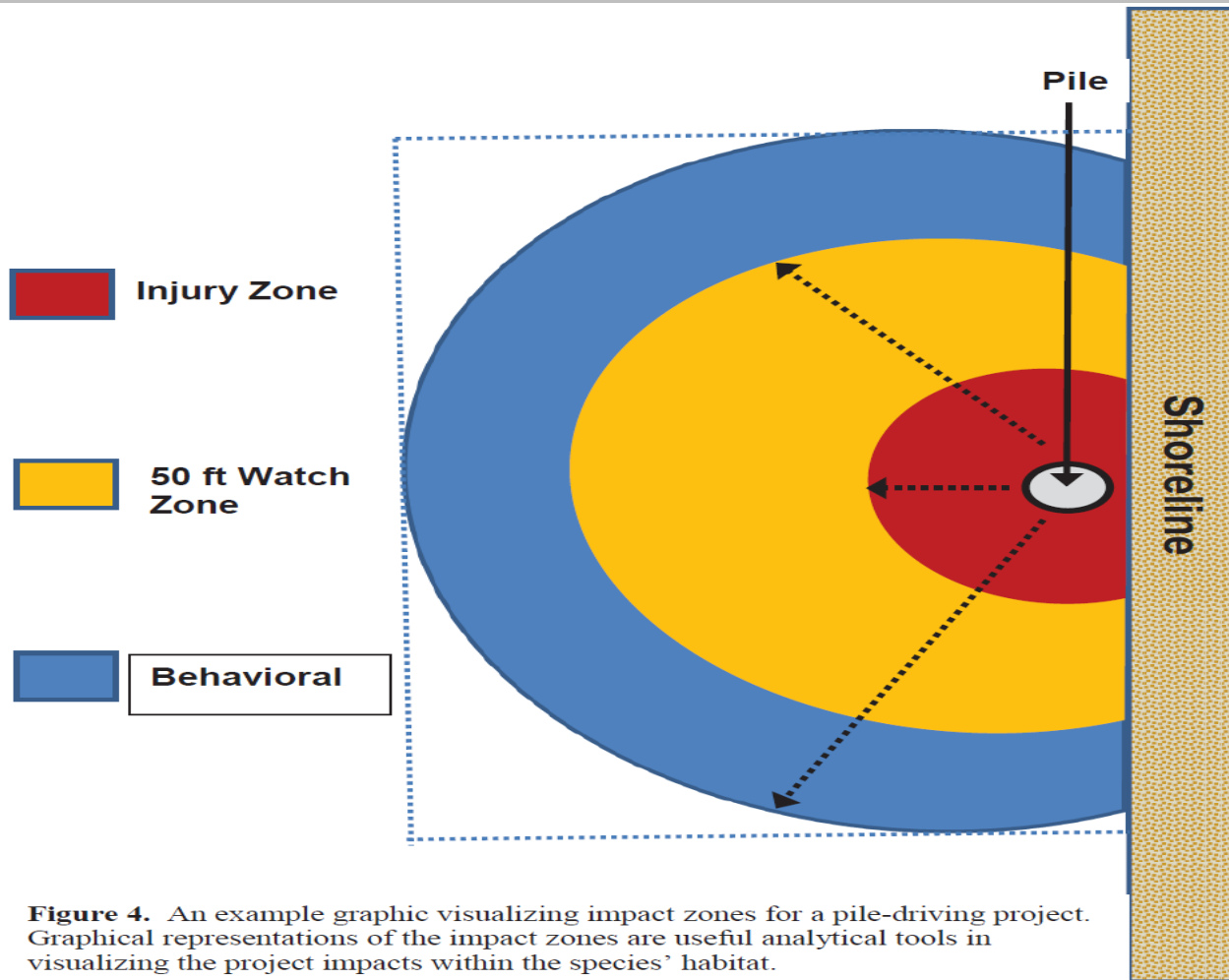
# NMFS ESA SECTION 7



Source: NMFS. 2014. Biological Opinion on Regional General Permit SAJ-82 (SAJ-2007 -01590), Florida Keys, Monroe County, Florida. June 10, 2014.



# NMFS ESA SECTION 7



**Figure 4.** An example graphic visualizing impact zones for a pile-driving project. Graphical representations of the impact zones are useful analytical tools in visualizing the project impacts within the species' habitat.

Source: NMFS. 2014. Biological Opinion on Regional General Permit SAJ-82 (SAJ-2007 -01590), Florida Keys, Monroe County, Florida. June 10, 2014.





# NMFS ESA SECTION 7

**Table 2. Impact pile-driving threshold noise levels for fish and sea turtles**

Effect	Animal	Threshold Level (dB re 1 $\mu$ Pa) <sup>e</sup>
Injury	Fish <sup>a,b</sup> and Sea Turtles	206 (peak pressure) or 187 (sSEL), whichever is larger
Behavior	Fish <sup>c</sup>	150 (RMS)
	Sea Turtles <sup>d</sup>	160 (RMS)

**Table 3. Continuous noise threshold levels for fish and turtles from exposure to vibratory pile-driving noise**

Effect	Animal	Threshold Level (dB re 1 $\mu$ Pa)
Injury <sup>a</sup>	Sturgeon, Sawfish, and Sea Turtles	206 (peak pressure) or 234 (cSEL), whichever is larger
Behavior	Fish	150 (RMS)
	Sea Turtles	160 (RMS)

<sup>a</sup> Injury criteria from Hastings (2010). There are no SEL criteria for sea turtles for continuous noises.

Source: NMFS. 2014. Biological Opinion on Regional General Permit SAJ-82 (SAJ-2007 -01590), Florida Keys, Monroe County, Florida. June 10, 2014.

Photo Credit: SC DNR



# NMFS ESA SECTION 7

**Table 10. Impact pile driving behavioral impact zone ranges for wood, vinyl, concrete, and metal sheet piles**

Pile Type	dB Above Fish Threshold	Fish Behavior Radius (m)	dB Above Sea Turtle Threshold	Sea Turtle Behavior Radius (m)
<i>wood/vinyl</i>	35 dB	215	25 dB	46
<i>concrete</i>	35 dB	215	25 dB	46
<i>I-beam</i>	40 dB	465	30 dB	100
<i>metal sheet pile</i>	44 dB	858	34 dB	185

Source: NMFS. 2014. Biological Opinion on Regional General Permit SAJ-82 (SAJ-2007 -01590), Florida Keys, Monroe County, Florida. June 10, 2014.

Photo Credit: SC DNR



# NMFS ESA SECTION 7

**Table 16. Vibratory pile driving behavioral impact zone ranges for wood/vinyl, concrete, and all sheet piles**

Piles Type	dB Above Fish Threshold	Fish Radius (m)	dB Above Sea Turtle Threshold	Sea Turtle Radius (m)
wood/vinyl	20 dB	22	10 dB	4.6
concrete	20 dB	22	10 dB	4.6
metal I-beam	0	0	0	0
metal sheet pile	28 dB	74	18 dB	16

Source: NMFS. 2014. Biological Opinion on Regional General Permit SAJ-82 (SAJ-2007 -01590), Florida Keys, Monroe County, Florida. June 10, 2014.

Photo Credit: SC DNR



# NMFS ESA SECTION 7



**Table 17. Effectiveness and cost of noise control measures for pile driving**

Sound Treatment	Description	Effectiveness		Cost
		Reduction	Metric	
Bubble curtain or bubble tree	Air bubbles used to block sound	5-20+ dB	RMS, Peak, SEL	\$50-200
Confined bubble curtain	A fabric, solid, or tubular curtain is used to confine bubbles	9-22 dB	RMS, Peak, Particle velocity	\$100-200
Pile caps	Micarta caps used between the impact piling head and the pile to reduce noise	1-8 dB	RMS, Peak, SEL	Low material cost. May increase time to install pile.
Temporary Noise Attenuation Pile	A physical barrier lined with foam or other materials	8-14 dB	RMS, Peak, SEL	Unknown. May be similar to bubble curtain
Dewatered cofferdam	Removal of water around pile	15 dB 3-35 dB	RMS, Peak	Unknown. Assumed more than bubble curtains
Vibratory hammers	Alternative to impact hammers	10-20+ dB	RMS, Peak, SEL	2-3 times cost of impact hammers
Suction piles	Replacement for existing techniques	Very large reduction	All	Potential cost savings
Press-in piles	Piles are pressed into place	Very large reduction	All	Unknown

Table modified from Pile Driving Treatments table found in Spence et al. (2007) and updated with data by Laughlin (2010).





# NMFS ESA SECTION 7



## ❖ SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

❖ Siltation barriers

❖ No wake/idle speeds

❖ Cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish.

[https://sero.nmfs.noaa.gov/protected\\_resources/section\\_7/guidance\\_docs/documents/sea\\_turtle\\_and\\_smalltooth\\_sawfish\\_construction\\_conditions\\_3-23-06.pdf](https://sero.nmfs.noaa.gov/protected_resources/section_7/guidance_docs/documents/sea_turtle_and_smalltooth_sawfish_construction_conditions_3-23-06.pdf)



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Southeast Regional Office  
263 13th Avenue South  
St. Petersburg, FL 33701

### SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

- The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006  
O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc



Photo Credit: SC DNR



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- ❖ The Marine Mammal Protection Act (MMPA) was enacted on October 21, 1972.
- ❖ All marine mammals are protected under the MMPA.
- ❖ The MMPA prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S.
- ❖ Need an Incidental Harassment /Take Authorization if interactions occur.

Photo Credit: SC DNR



# Conclusion and Final Thoughts

- ❖ Prior to permitting and/or grant submittal identify whether NMFS listed species and/or critical habitat occur at project site.
- ❖ Coordinate early in the project development phase with your WSFR grant specialist to determine compliance needs.
- ❖ Inform third parties and other stakeholders of ESA consultation timelines before submitting grant application.
- ❖ Include information necessary to ensure compliance with Section 7 of the ESA in your CWA Section 404 permit application and SFR/BIG grant application.
- ❖ Communicate with the USACE District Office to determine if ESA consultation has been initiated with NMFS through their GP, RP, or SP.
- ❖ WSFR will need to consult with NMFS for ESA, MSA, and/or MMPA if consultation documentation is not received.



# Case Study

## Jiggin' Jerry



[https://www.youtube.com/watch?v=-9HQQ82\\_Q0I](https://www.youtube.com/watch?v=-9HQQ82_Q0I)





Photo: GA CRD

## QUESTIONS?

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Photo: MS DMR



Photo: MS DMR