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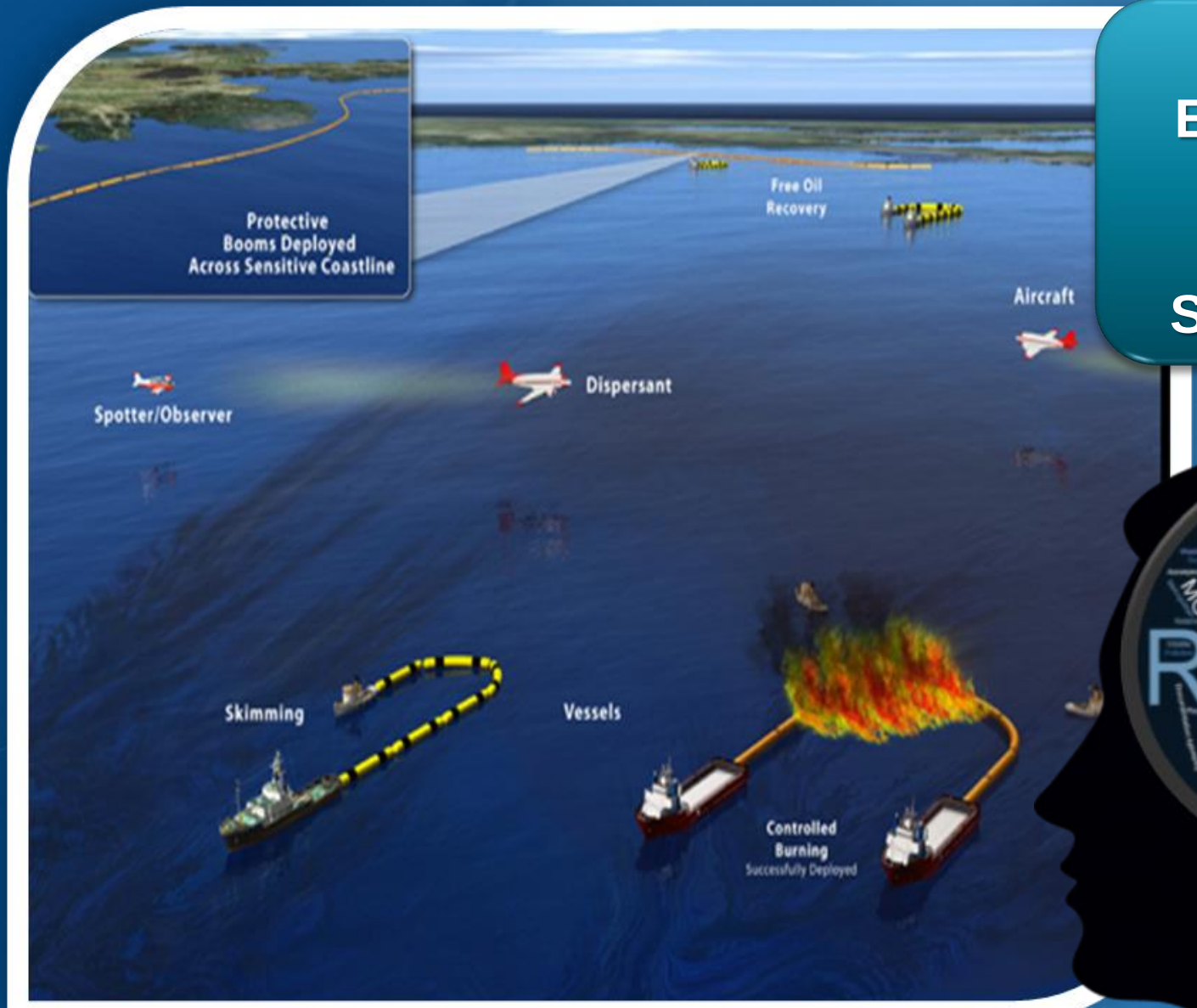
Distribute Handouts at Beginning of Presentation

Collect all Handouts at End of Presentation!

The Brain of an OSC!

The Goal: BEST RESPONSE!



Safety
Environment
Economy
Public
Stakeholders

PARTNERSHIPS

Initial Actions

Unit Standards

Local ACP & GRP

Regional Plan

National Plan

NRF/ICS

IMH

BEST RESPONSE

Safety
Environment
Economy
Public Information
Stakeholders

Standards
Leadership
Equipment
Leadership
Training
Leadership
Balance
Family
Team
Leadership

The Formula!

Biological Assessment
Re-Initiated for the
Preauthorized Dispersant and In-Situ Burn Operation Plans

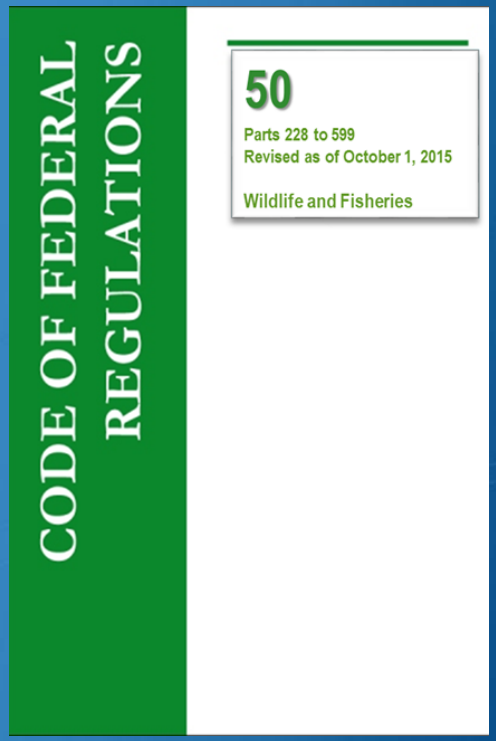
Matthew Huyser, OSC, EPA
&
Kevin Boyd, LCDR, USCG

Science & Technology Workgroup
Region 4 Regional Response


PARTNERSHIPS
Initial Actions
Unit Standards
Local ACP & GRP
Regional Plan
National Plan
NRF/ICS
IMH
BEST RESPONSE
Safety
Environment
Economy
Public Information
Stakeholders
Standards
Leadership
Equipment
Leadership
Training
Leadership
Balance
Family
Team
Leadership
Where BA comes in!

Why Biological Assessment?

- Note: The Environment has and continues to be a Priority!
  - Human health
  - Environmental health
  - ACP, GRP, ESI, daily decisions
  - **WE DO THIS EVERYDAY!**



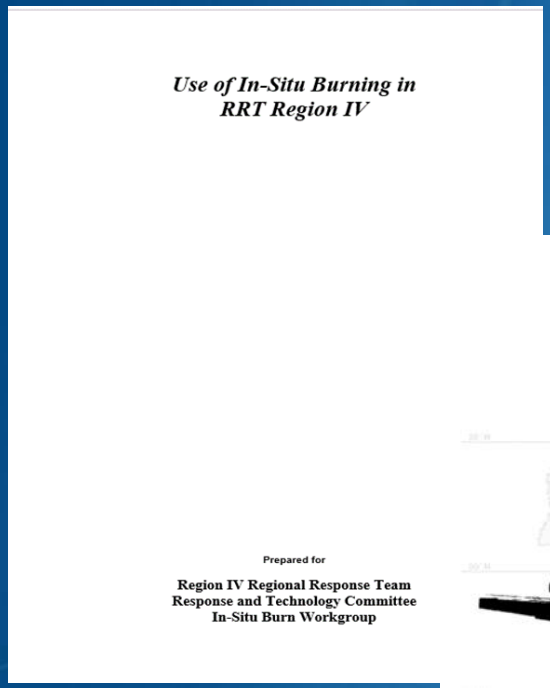
- **Listed Endangered Species – This is a Special Case**
  - Do our actions impact Endangered Species?
  - **Everyone MUST consider!**
  - **Federal agencies no exception!**

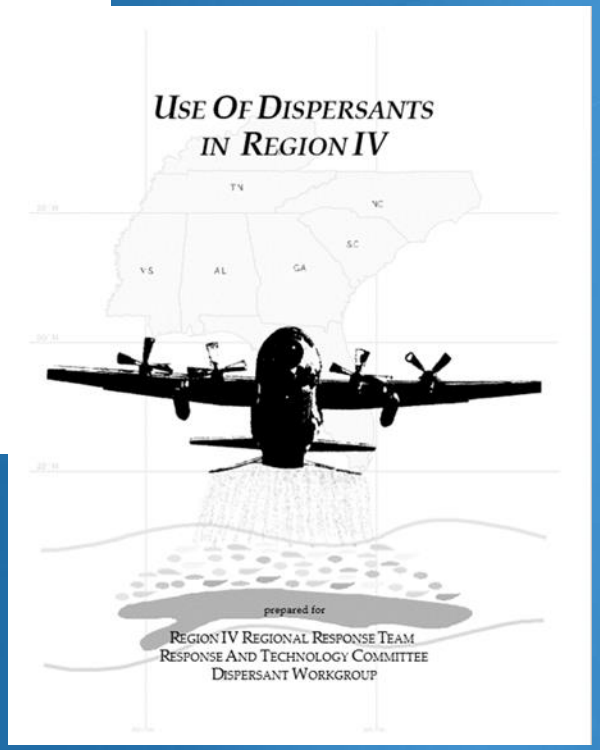
BA Outcomes

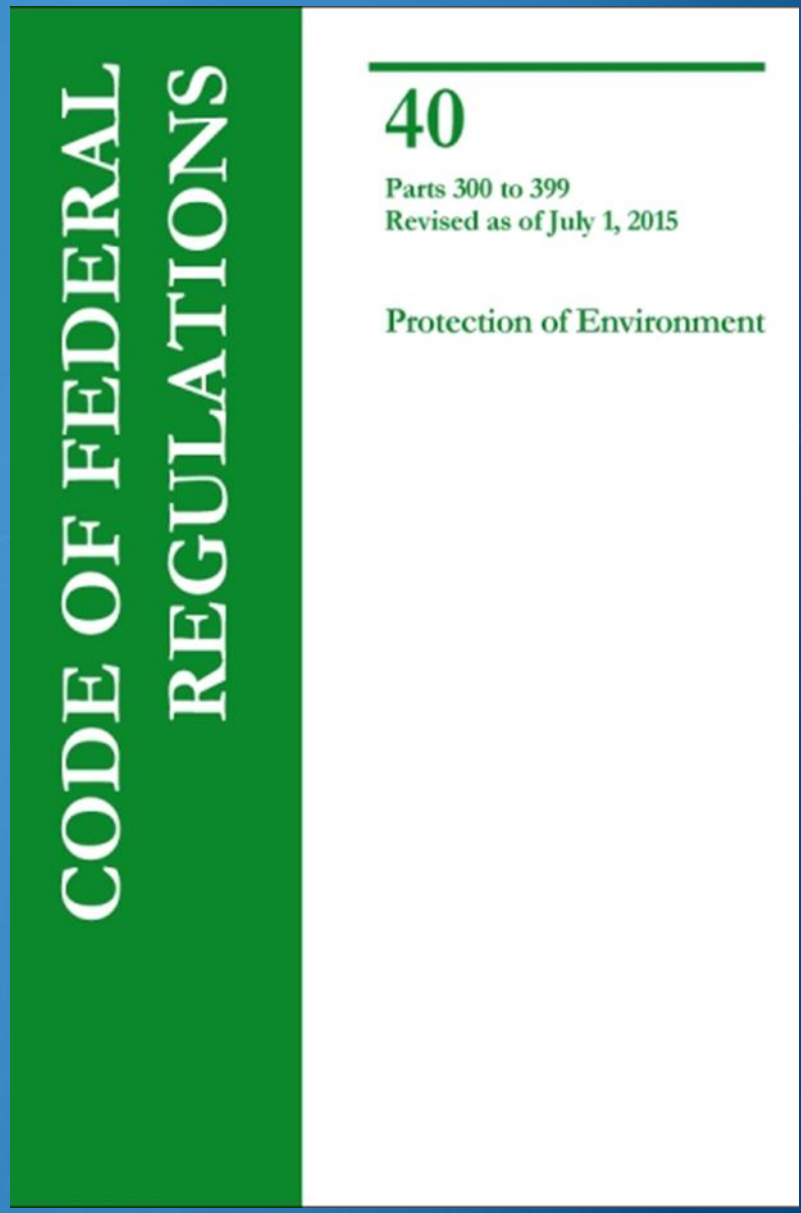
- **DETERMINATION**:
  - Does our Action Impact Endangered Species?
- **GO/NO GO**:
  - Can we proceed with our Action as planned?
- **CONSERVATION MEASURES**:
  - Is there a way to reduce risks to endangered species/habitat
- **PARTNERSHIPS**
  - Communication w/ Trustees & Other Management

Major Projects Identified in Region 4

- Use of Dispersants
- Use of In-Situ Burning

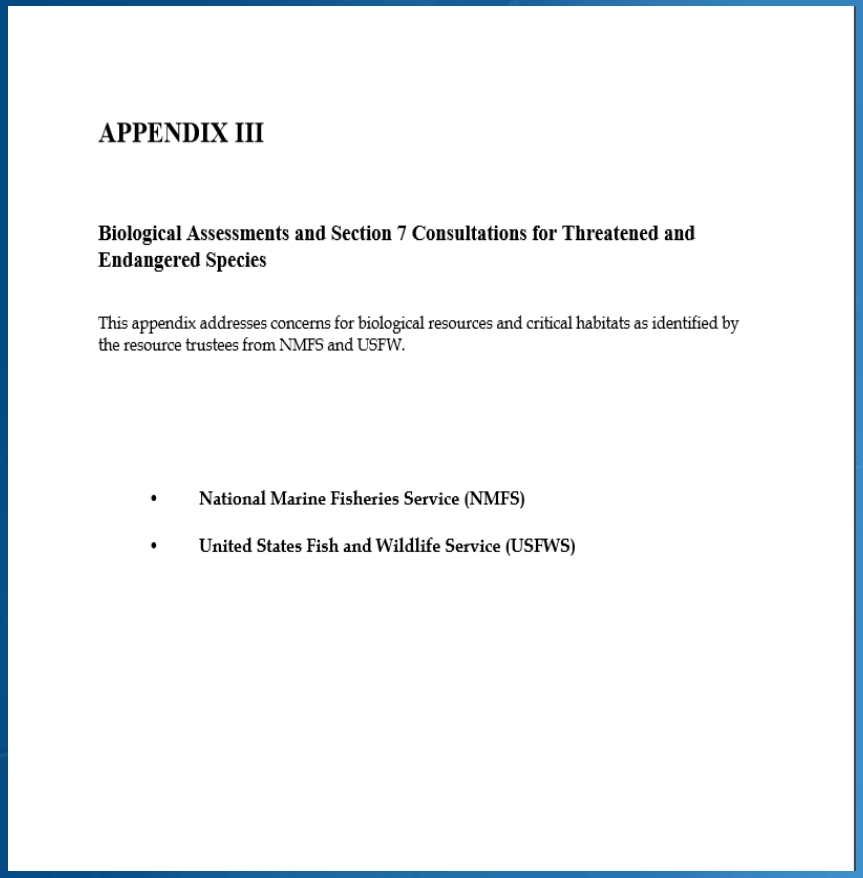






Existing Biological Assessment-1996

- Authored by Brad Benggio (NOAA, SSC),(then LCDR)

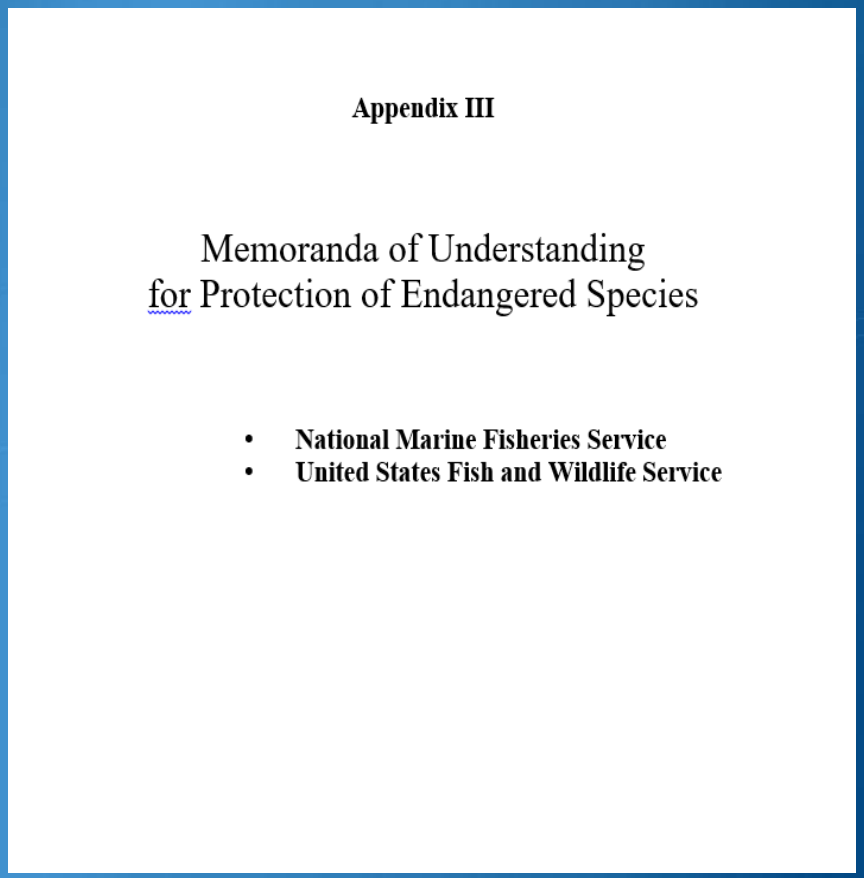


APPENDIX III

Biological Assessments and Section 7 Consultations for Threatened and Endangered Species

This appendix addresses concerns for biological resources and critical habitats as identified by the resource trustees from NMFS and USFW.

- National Marine Fisheries Service (NMFS)
- United States Fish and Wildlife Service (USFWS)



Appendix III

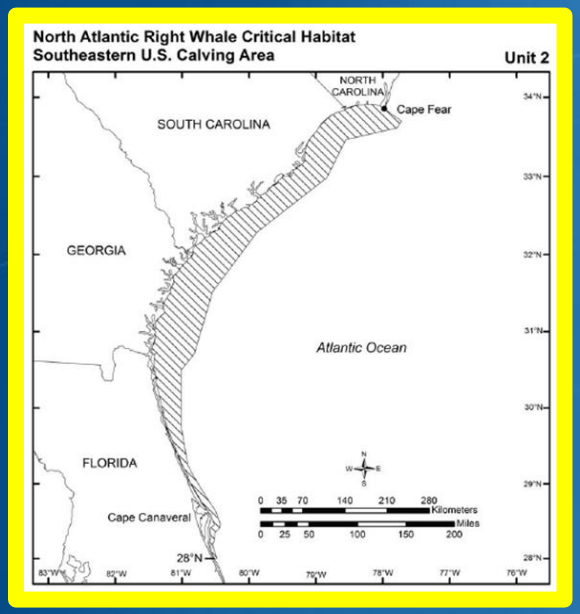
Memoranda of Understanding
for Protection of Endangered Species

- National Marine Fisheries Service
- United States Fish and Wildlife Service

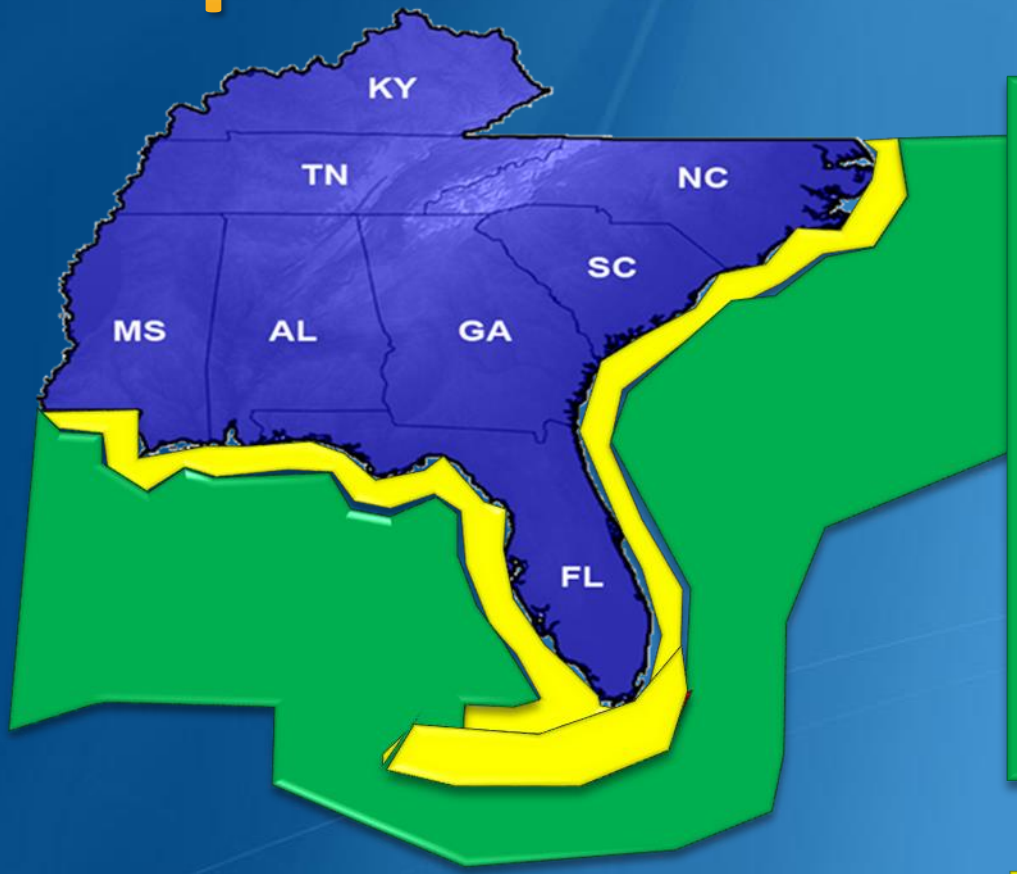
- Concurrence from Services in the Determination:
  - **May Effect, not Likely to Adversely Effect**

Re-Initiation of BA - 2015

- DUP and ISB Plans are/have been revised!
- New Information available from Gulf of Mexico
- New Species
- New Critical Habitats
- New Guidance: Essential Fish Habitats



Dispersant & ISB Preauthorized Area



Green Zone

****Preauthorized Area****

Marine Offshore waters

> 3 NM

AND

- **10 meter depth**
- **Out to EEZ boundary**

Red Zone

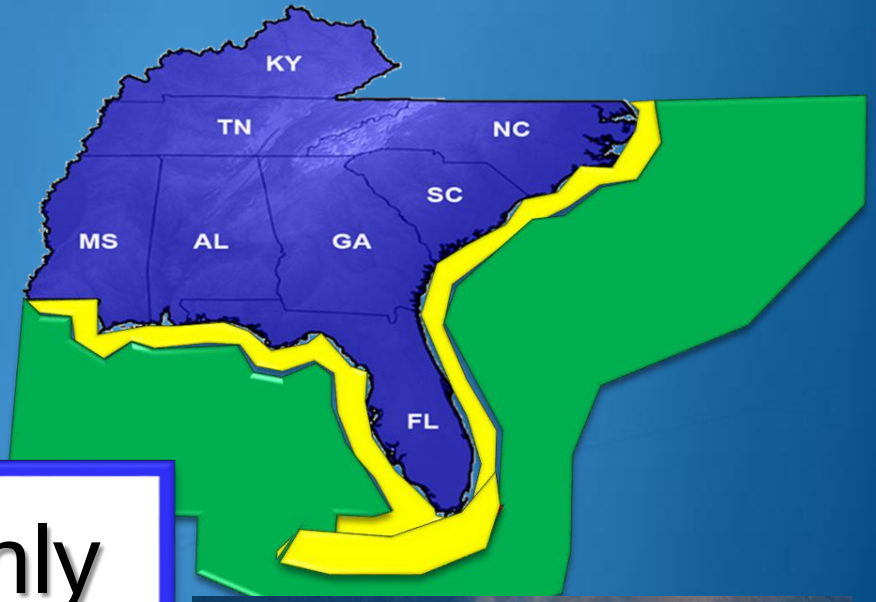
Not Authorized

(No Red Zones currently designated)

Yellow Zone

Consultation Required

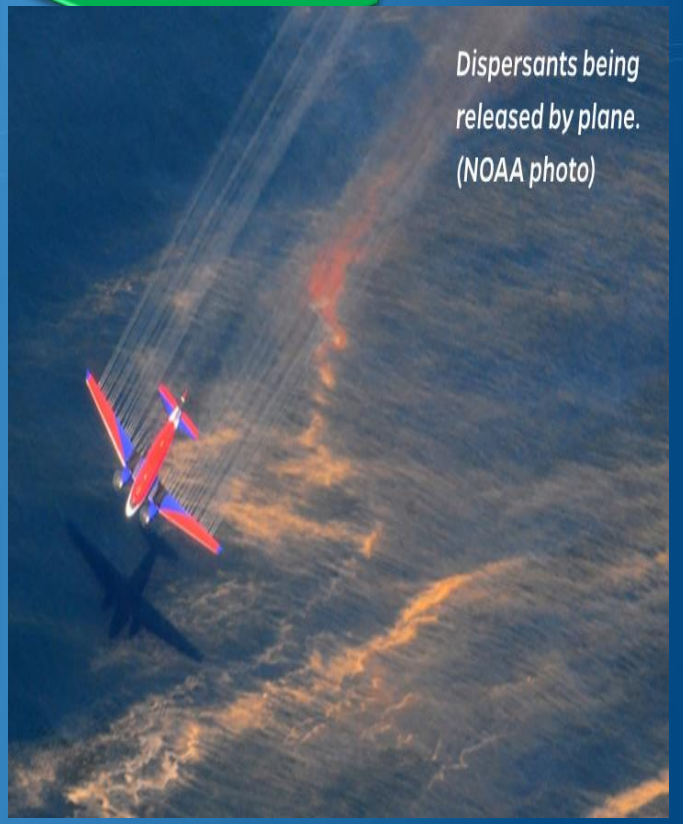
Dispersant Preauthorization



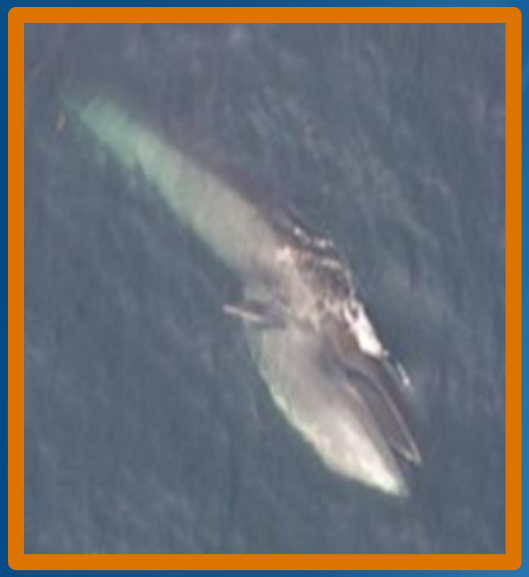
Surface Application Only

National Product Schedule

In Adherence w/ Protocol



Endangered Species - Green Zone



Cetaceans

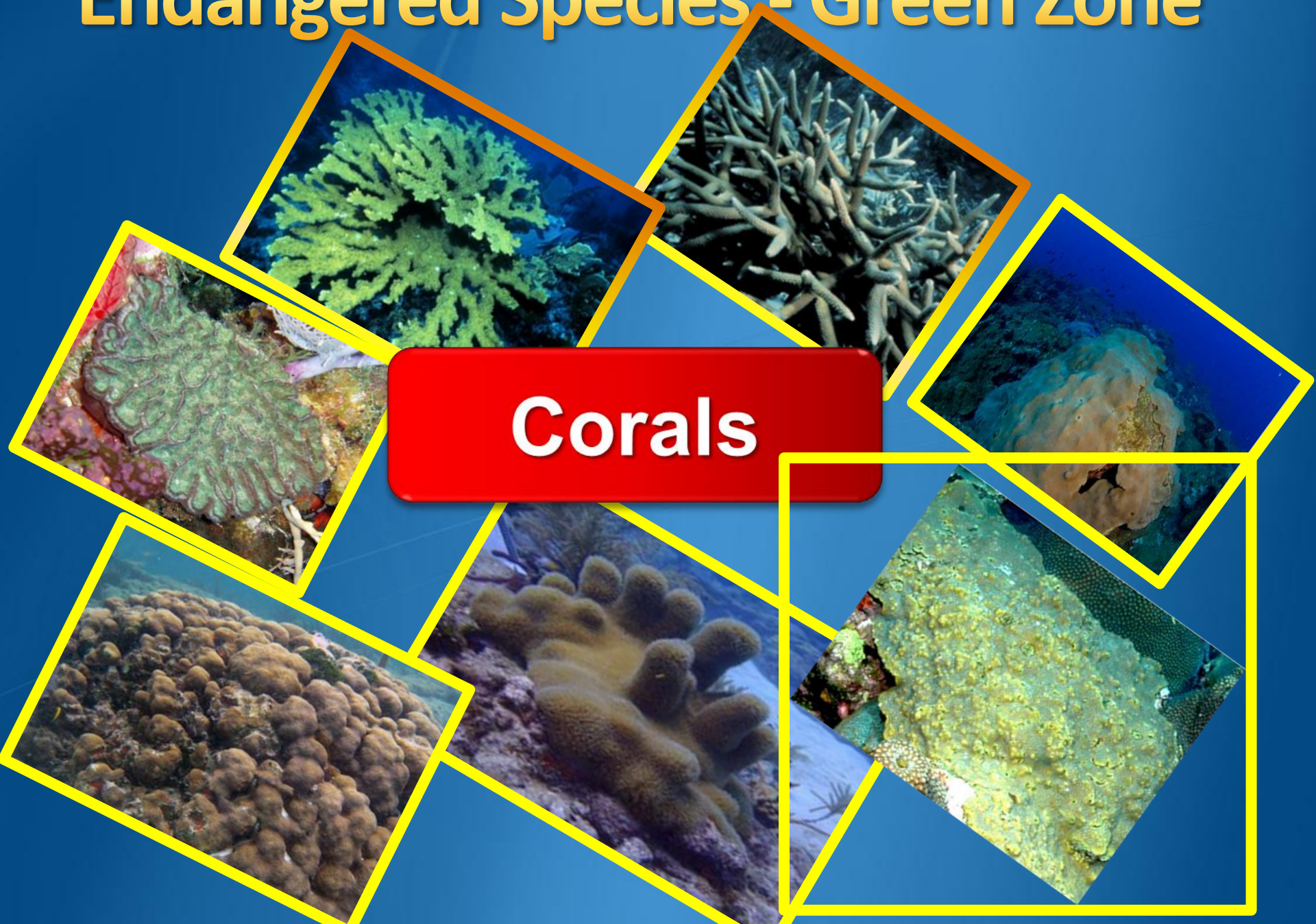
Endangered Species - Green Zone

Sea Turtles

Endangered Species - Green Zone

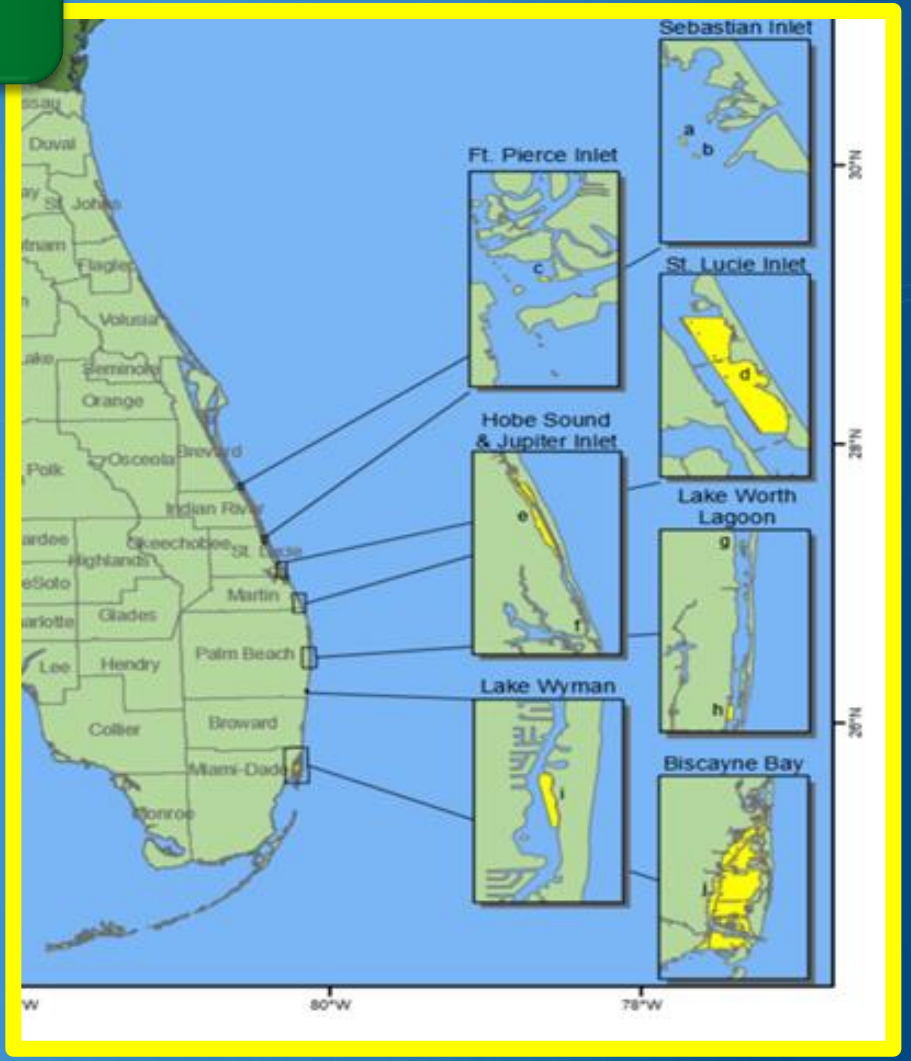
Fish

Endangered Species - Green Zone



Endangered Species - Green Zone

Sea Grass



Endangered Species - Green Zone

Sirenia

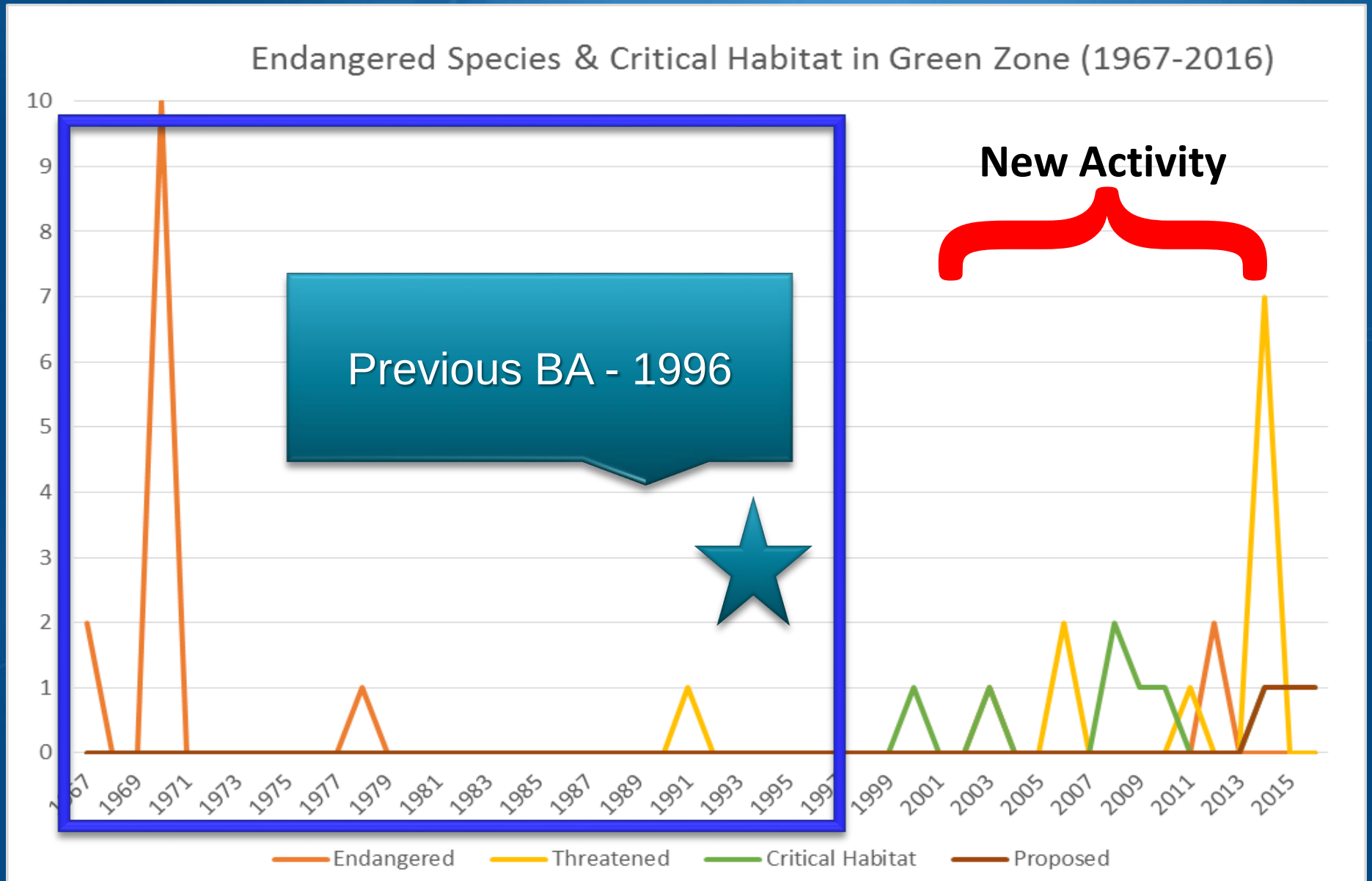
Endangered Species - Green Zone

Birds

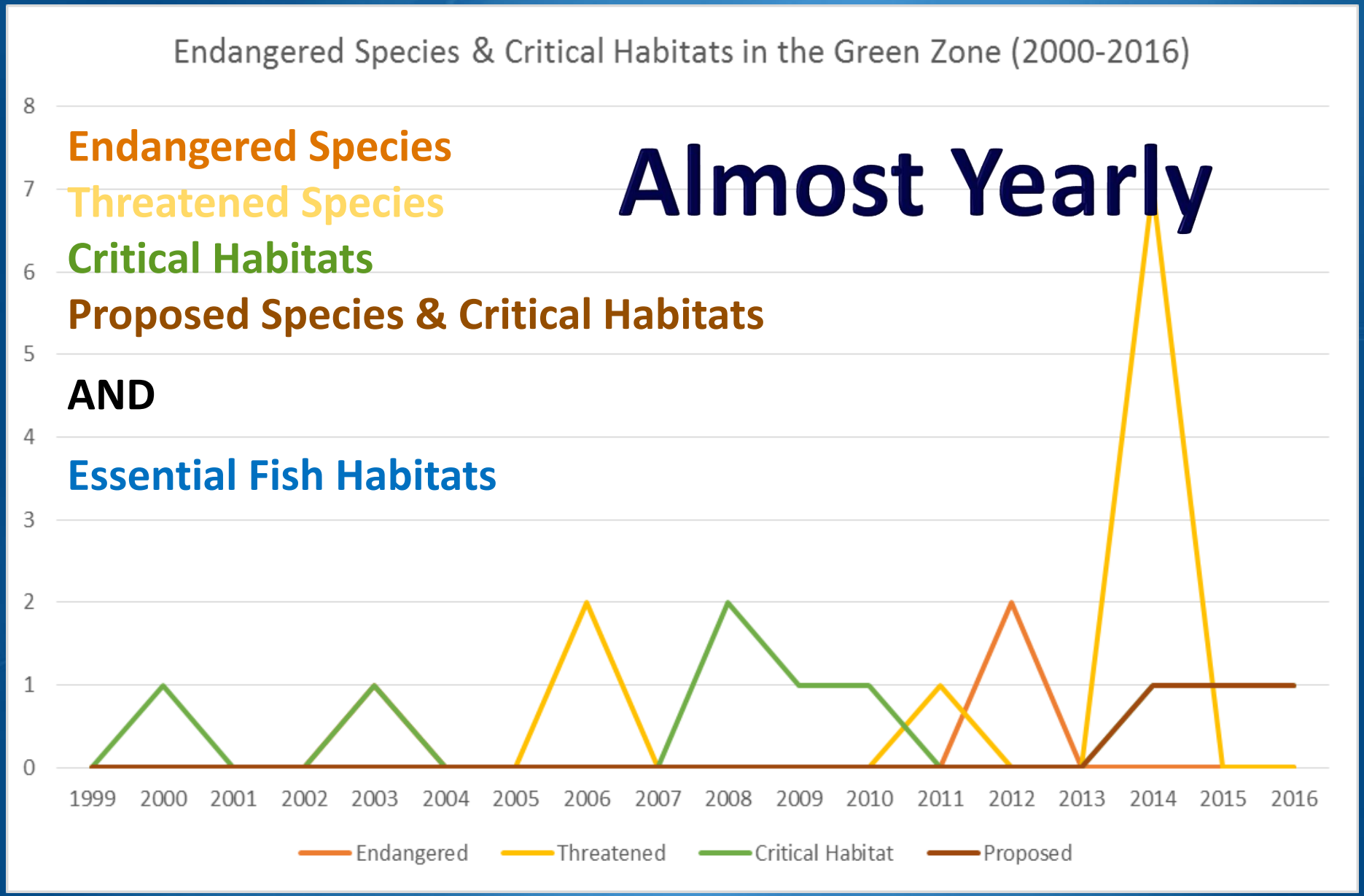
ESA Accountability

- **Within** Green Zone (29 Species, 34 Critical Habitats)
  - 25 NOAA Species
  - 27 NOAA Critical Habitats
  - 3 USFWS Species
  - 1 Joint NOAA/USFWS Specie
  - 7 Joint NOAA/USFWS Critical Habitat
- **Outside** Green Zone (49 Species, 34 Critical Habitats)
  - 34 Joint NOAA/USFWS Critical Habitats
  - 49 USFWS Species

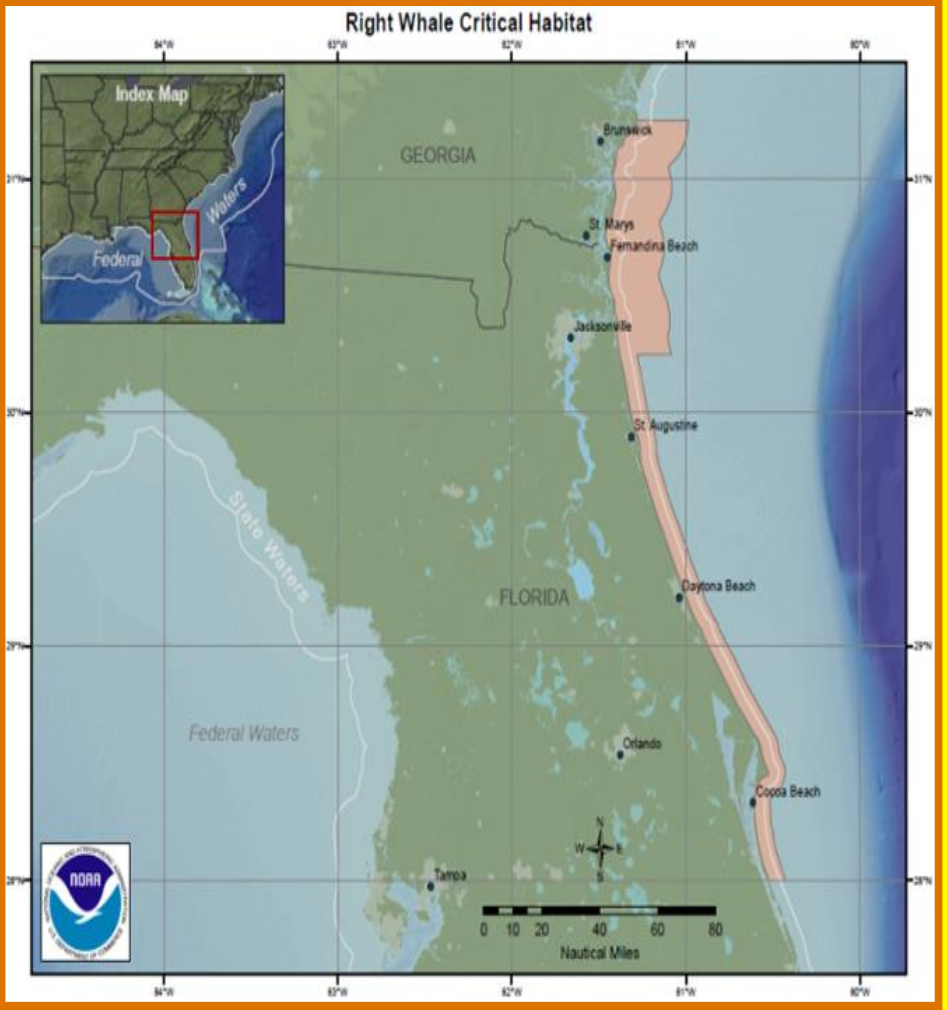
Endangered Species - Green Zone

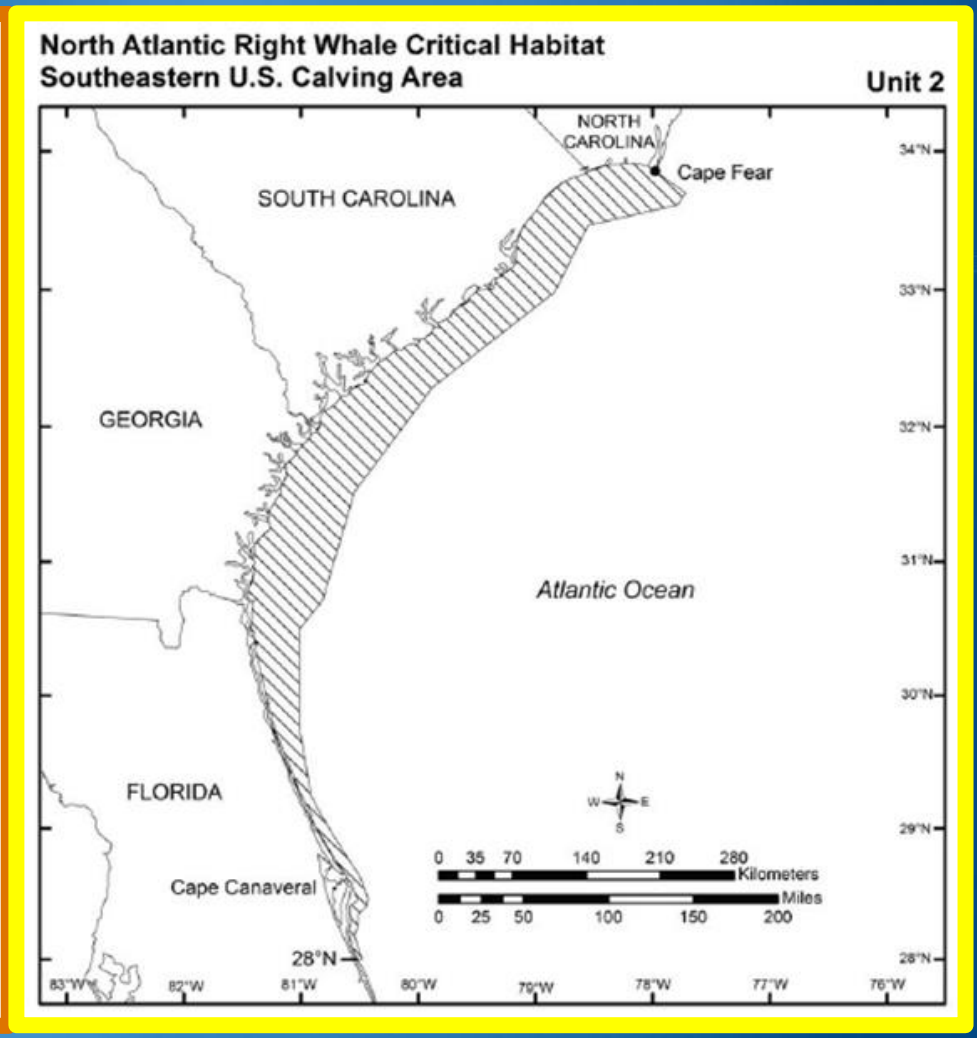


Endangered Species - Green Zone



North Atlantic Right Whale Critical Habitat – Feb 2016





Essential Fish Habitat

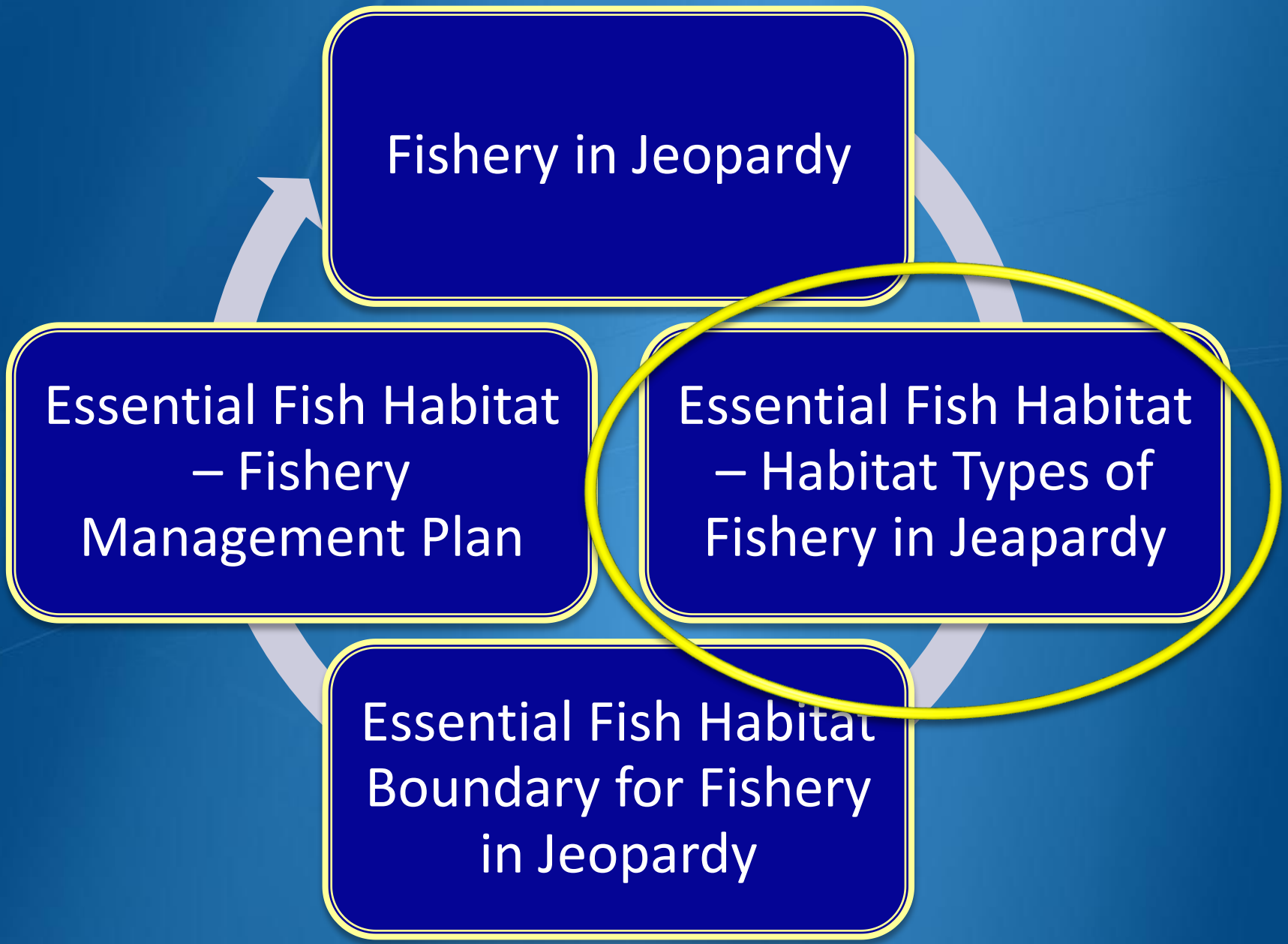
- Magnuson Stevens Fishery Management Act
  - Consultation Required
- Consultation Agency
  - National Marine Fisheries Service
- Management Agencies
  - National Marine Fisheries Service
  - South Atlantic Fishery Management Council
  - Gulf of Mexico Fishery Management Council

GULF OF MEXICO Fishery Management Council

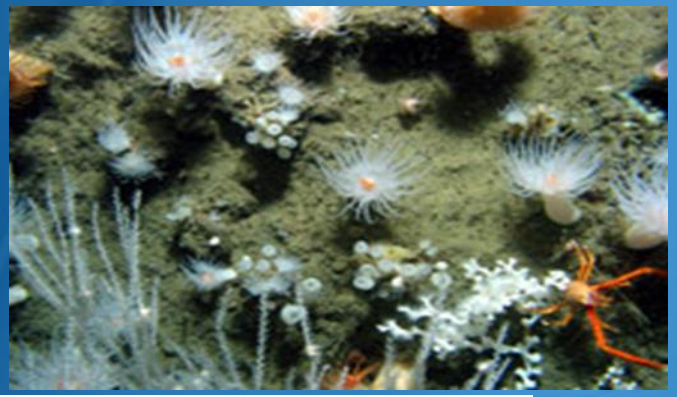
NOAA's NATIONAL MARINE FISHERIES SERVICE

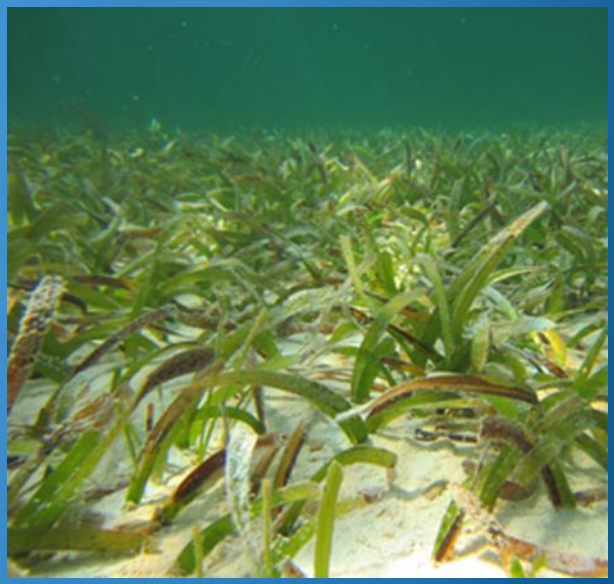
South Atlantic Fishery Management Council "To Conserve and Manage"

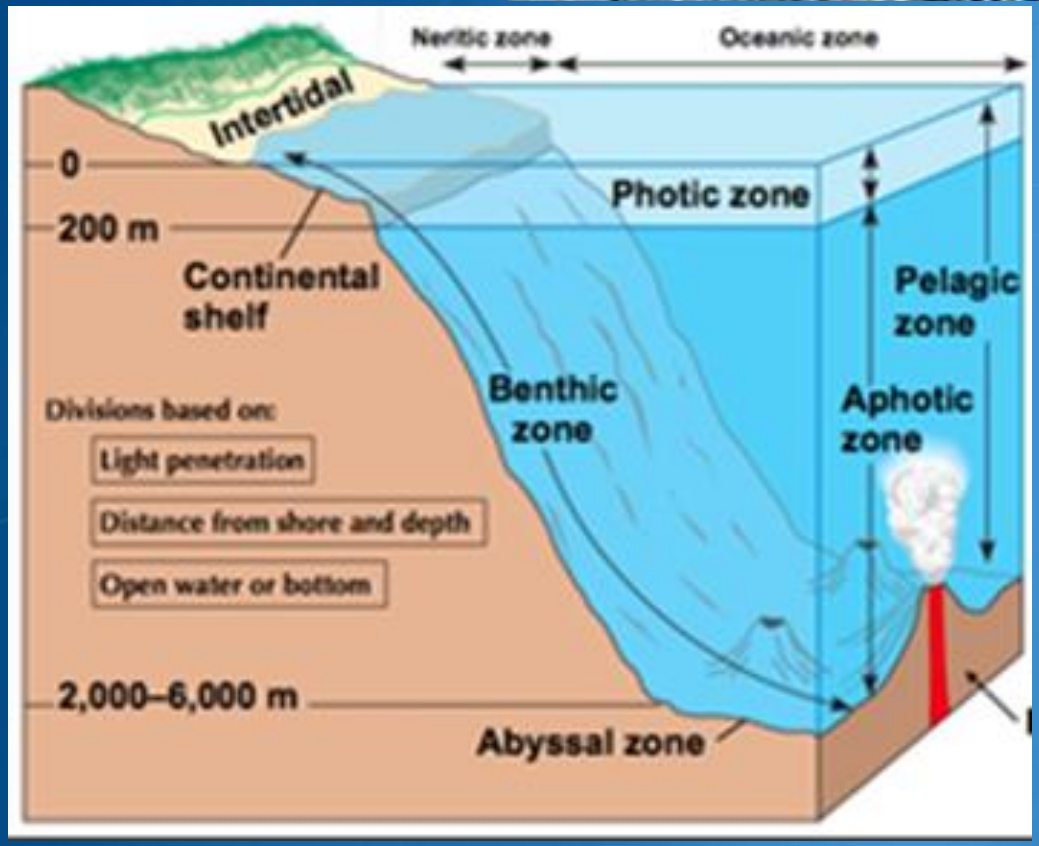
Essential Fish Habitat Defined

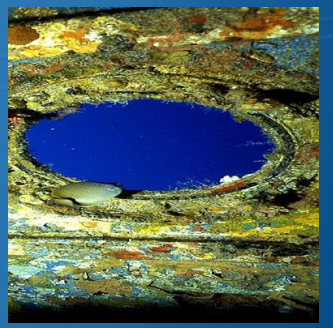


Essential Fish Habitat









In Region 4 Essential Fish Habitat

Essential Fish Habitats (4.3.)

Gulf of Mexico Fishery Management Council EFH Habitat Types (4.3.C.)

- Pelagic (water column) (4.3.C.1.)
- Drift Algae (sargassum) (4.3.C.2.)
- Shelf Edge/Slope (continental shelf) (4.3.C.3.)
- Coral Reefs (reef halos, patch reefs, deep reefs) (4.3.C.4.)
- Submerged Aquatic Vegetation (SAV, seagrasses, benthic algae) (4.3.C.5.)
- Hard Bottom (live bottom, low-relief bottoms, and high-relief bottoms(4.3.C.6.)
- Soft Bottom (mud, clay, silt) (4.3.C.7.)
- Oyster Reefs (4.3.C.8.)

References:

(1) Essential fish Habitat – Gulf of Mexico Overview, National Marine Fisheries Service Southeast Region, NOAA Fisheries Service, Version: 08-2015

(2) Final Environmental Impact Statement for the Generic Essential Fish Habitat Amendment, Volume 1: Text, March 2004, Gulf of Mexico Fishery Management Council, National Oceanic and Atmospheric Administration Award No. NA17FC1032.

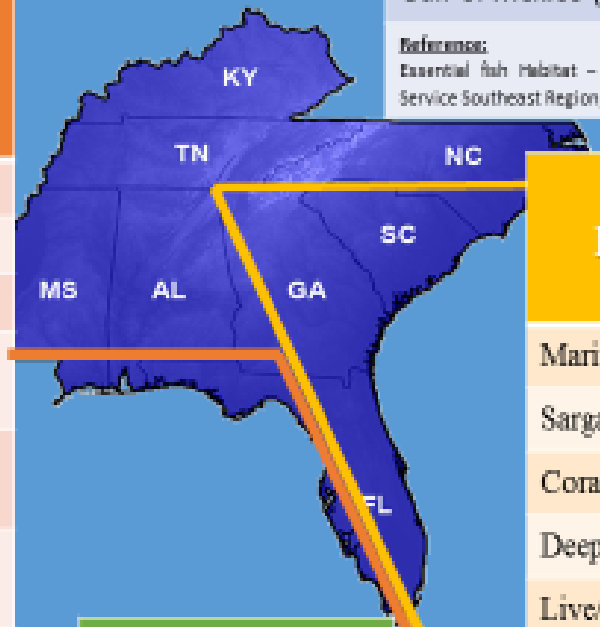
(3) Generic Amendment for Addressing Essential Fish Habitat Requirements, October 1998, Gulf of Mexico Fishery Management Council, National Oceanic and Atmospheric Administration, Award No. NA87FC0003.

National Marine Fisheries Service (4.3.D.)

Gulf of Mexico (4.3.D.1)

Reference:

Essential fish Habitat – Gulf of Mexico Overview, National Marine Fisheries Service Southeast Region, NOAA Fisheries Service, Version: 08-2015



Green Zone
(Preauthorized Area)

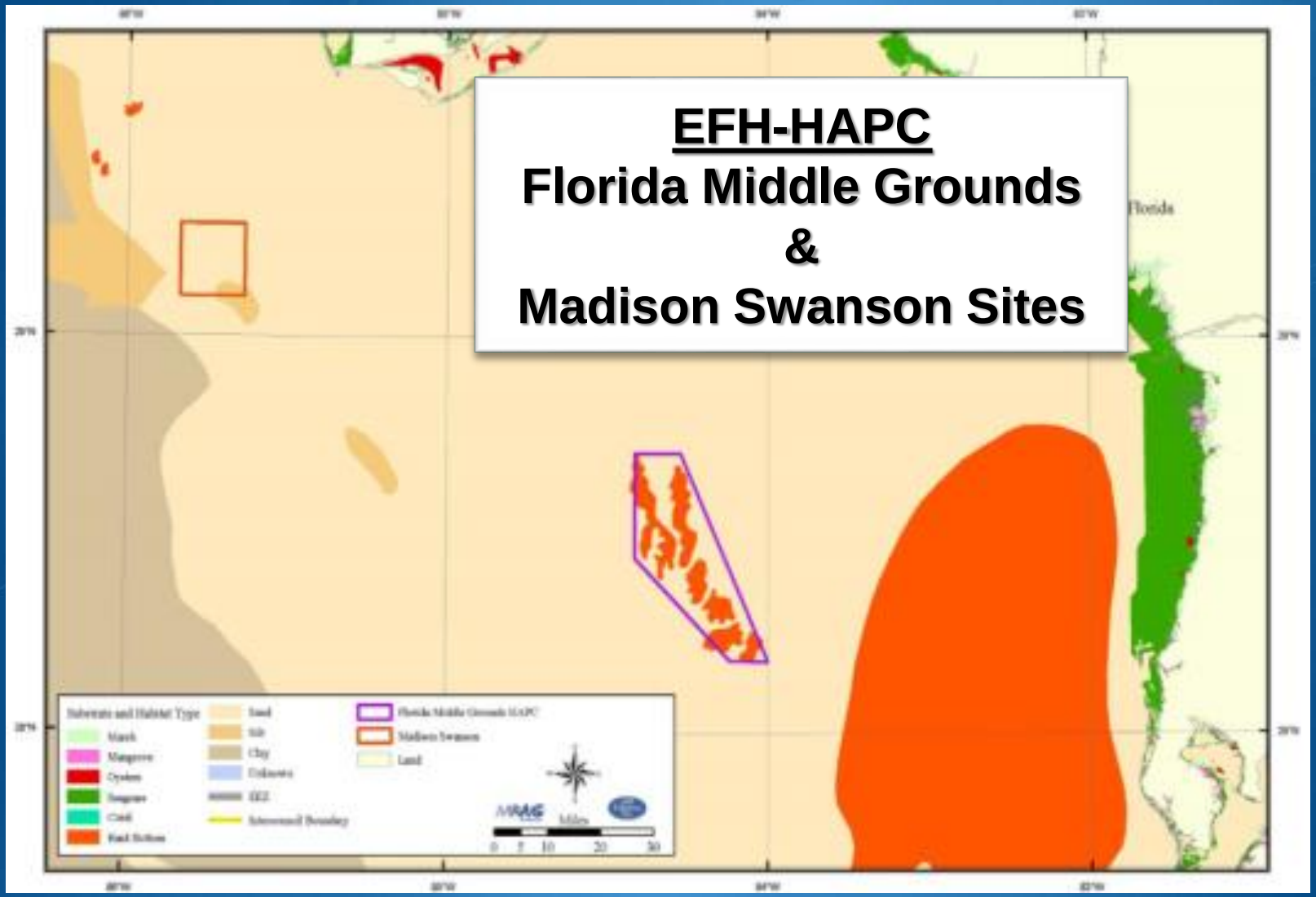
Offshore marine waters outside 3 NM, in depths greater than 10 meters, or distance offshore greatest of the two parameters, out to the EEZ.

South Atlantic Fishery Management Council EFH Habitat Types (4.3.B.)

- Marine Water Column (4.3.B.1.)
- Sargassum Habitat (4.3.B.2.)
- Coral Reefs and Coral Communities (4.3.B.3)
- Deepwater Coral Habitat (4.3.B.4)
- Live/Hardbottom Habitat (4.3.B.5.)
- Marine Soft Bottom (4.3.B.6.)
- Seagrasses (4.3.B.7.)
- Oyster Reefs and Shell Banks (4.3.B.8)
- Artificial Reefs (4.3.B.9.)

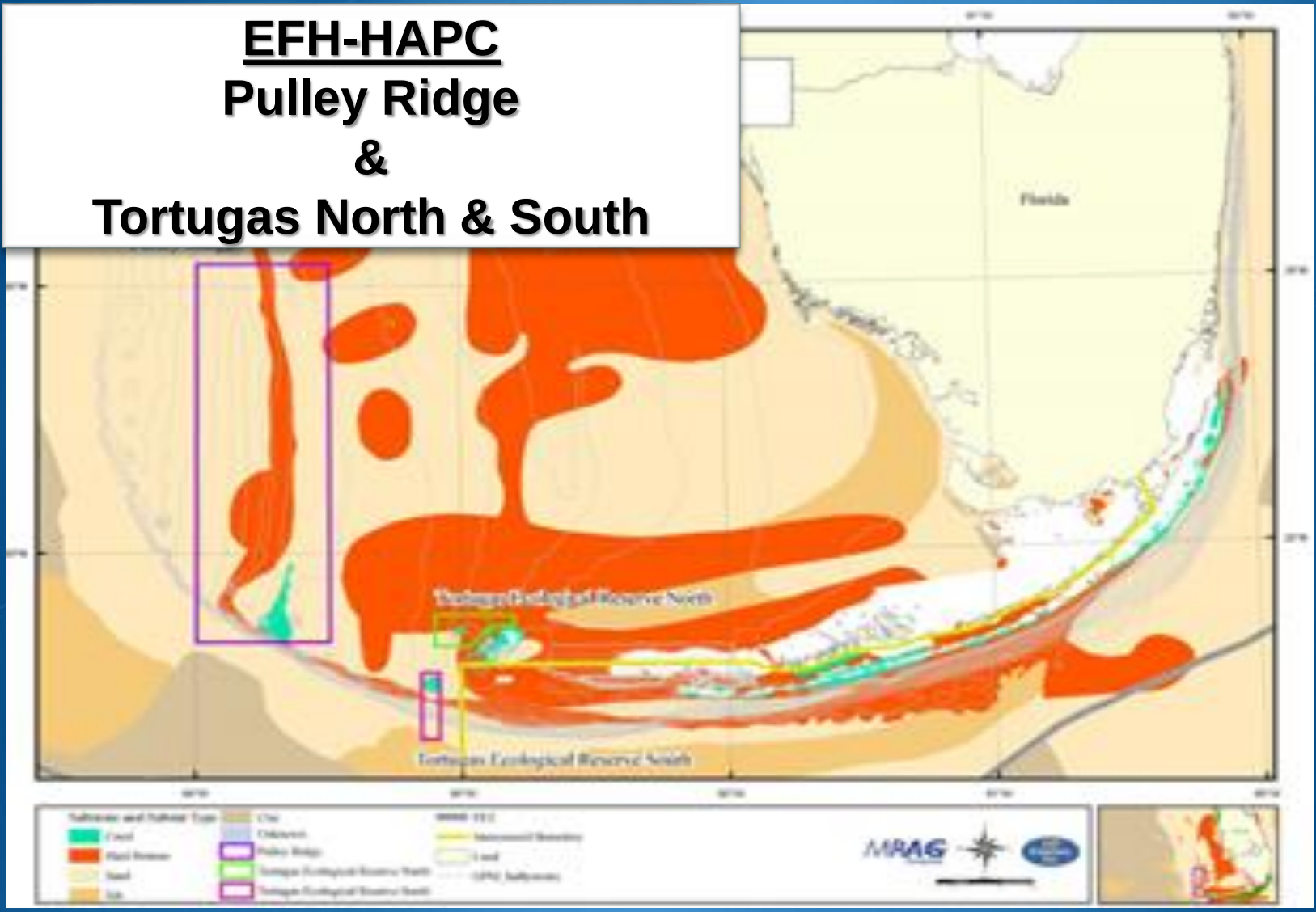
Reference: Fishery Ecosystem Plan of the South Atlantic Region, Volume II, South Atlantic Habitats and Species. April 2009. South Atlantic Fishery Management Council. National Oceanic and Atmospheric Administration Award No. FNA05NMF4410004

Essential Fish Habitat – Habitats of Particular Concern (EFH – HAPC)



Essential Fish Habitat – Habitats of Particular Concern (EFH – HAPC)

EFH-HAPC
Pulley Ridge
&
Tortugas North & South



Essential Fish Habitat – Habitats of Particular Concern (EFH – HAPC)

EFH-HAPC
General Description

EFH-HAPC
Specific Description

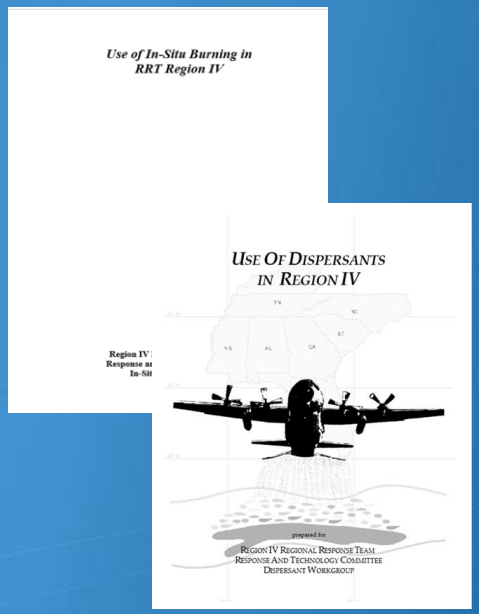
EFH Accountability w/in Green Zone

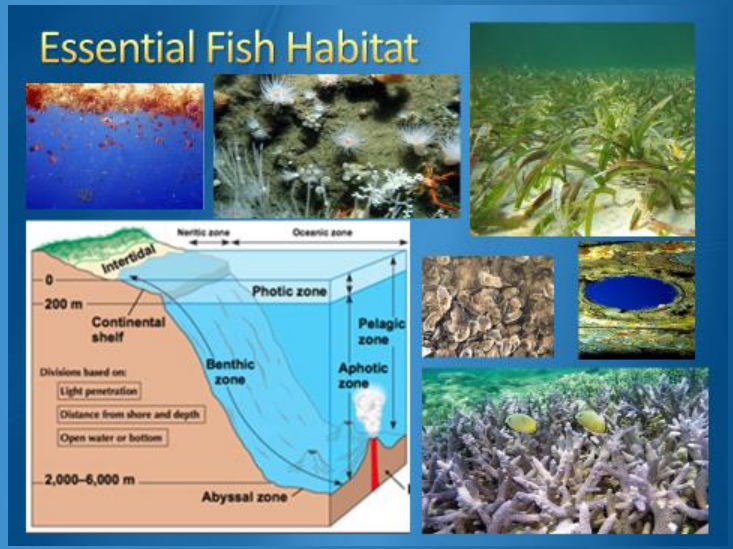
- South Atlantic Fishery Management Council
  - 9 Defined EFH
  - 11 Defined EFH-HAPCs

- Gulf of Mexico Fishery Management Council
  - 8 Defined EFH
  - 5 Defined EFH-HAPCs

- National Marine Fisheries Service
  - Shares EFH as Defined by Management Councils
  - 1 Defined EFH-HAPC

What We Have So Far!





What to Do! RRT4's Approach:

- ❖Develop Partnerships
- ❖Learn Content/Develop Outline
- ❖Get Help - Agency & Contractor Support
- ❖Get to Work!!! - Build a Biological Assessment iaw Law & Guidance

EPA Intern NMFS NOAA EPA USCG


DEPARTMENT OF COMMERCE
UNITED STATES OF AMERICA


NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE


KY
TN
NC
SC
MS
AL
GA
FL


GULF OF MEXICO
Fishery Management Council


South Atlantic Fishery Management Council
"To Conserve and Manage"


U.S. DEPARTMENT OF HOMELAND SECURITY


NOAA's NATIONAL
MARINE FISHERIES SERVICE


UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY


U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849


U.S.
FISH & WILDLIFE
SERVICE
DEPARTMENT OF THE INTERIOR


UNITED STATES COAST GUARD
1790

Set Goals: *Management*
**Reduce intensive funds/resources

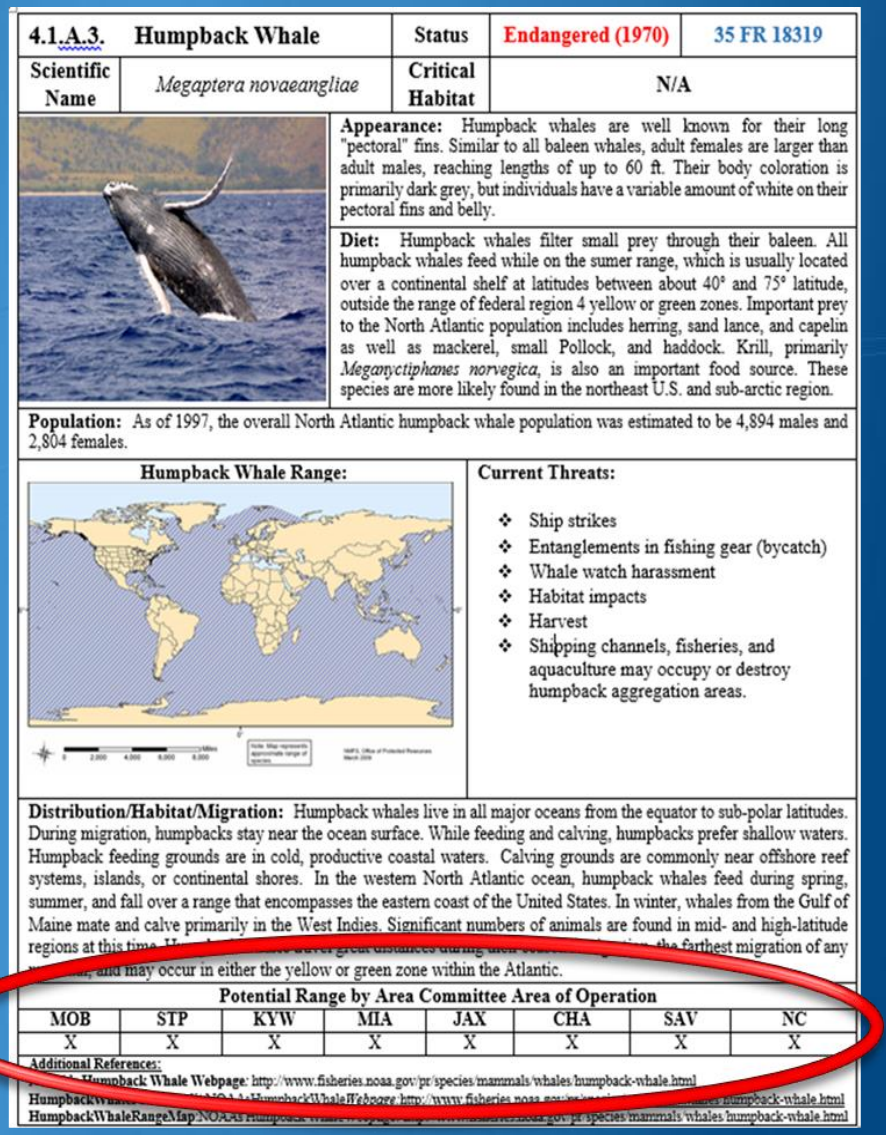
- Maintain BA at Regional Level versus distribute and require 8 BAs from Area Committees
  - Save time from limited Field Resources
  - Save time from the Services having to read 8 BAs

- Setup in such a way to reduce having to rewrite each time a new specie/habitat is listed.
  - Specie Layouts
  - Record of Changes
  - 1 or 2 specie consult in future vs. 60+

Additional Goals: *Response Utility*

*FOSC(R)s, Area Committees, Command Posts

- Species & Critical Habitats Layouts & Tables
- Quick Access
  - What applies to my AOR?
  - What BMPs can be added to the GRP or ACP?
  - What belongs with my Planning Section Chief/ Environmental Unit Leader
  - Most current/latest info will be maintained and available on RRT4 website.



4.1.A.3. Humpback Whale		Status	Endangered (1970)	35 FR 18319
Scientific Name	*Megaptera novaeangliae*	Critical Habitat	N/A	

Appearance: Humpback whales are well known for their long "pectoral" fins. Similar to all baleen whales, adult females are larger than adult males, reaching lengths of up to 60 ft. Their body coloration is primarily dark grey, but individuals have a variable amount of white on their pectoral fins and belly.

Diet: Humpback whales filter small prey through their baleen. All humpback whales feed while on the sumer range, which is usually located over a continental shelf at latitudes between about 40° and 75° latitude, outside the range of federal region 4 yellow or green zones. Important prey to the North Atlantic population includes herring, sand lance, and capelin as well as mackerel, small Pollock, and haddock. Krill, primarily *Meganyctiphanes norvegica*, is also an important food source. These species are more likely found in the northeast U.S. and sub-arctic region.

Population: As of 1997, the overall North Atlantic humpback whale population was estimated to be 4,894 males and 2,804 females.

Humpback Whale Range:

Current Threats:

- Ship strikes
- Entanglements in fishing gear (bycatch)
- Whale watch harassment
- Habitat impacts
- Harvest
- Shipping channels, fisheries, and aquaculture may occupy or destroy humpback aggregation areas.

Distribution/Habitat/Migration: Humpback whales live in all major oceans from the equator to sub-polar latitudes. During migration, humpbacks stay near the ocean surface. While feeding and calving, humpbacks prefer shallow waters. Humpback feeding grounds are in cold, productive coastal waters. Calving grounds are commonly near offshore reef systems, islands, or continental shores. In the western North Atlantic ocean, humpback whales feed during spring, summer, and fall over a range that encompasses the eastern coast of the United States. In winter, whales from the Gulf of Maine mate and calve primarily in the West Indies. Significant numbers of animals are found in mid- and high-latitude regions at this time. [illegible] the farthest migration of any [illegible], and may occur in either the yellow or green zone within the Atlantic.

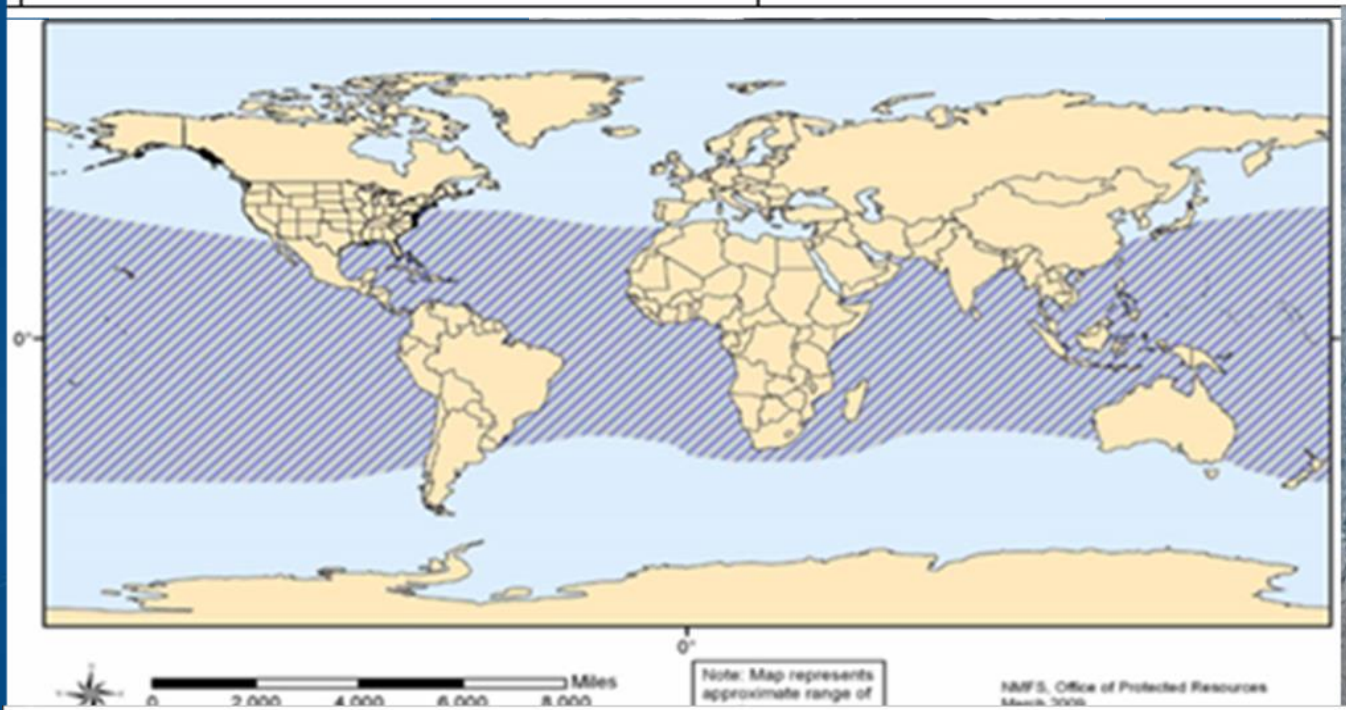
Potential Range by Area Committee Area of Operation

MOB	STP	KYW	MIA	JAX	CHA	SAV	NC
X	X	X	X	X	X	X	X

Additional References:
Humpback Whale Webpage: http://www.fisheries.noaa.gov/pr/species/mammals/whales/humpback-whale.html
Humpback Whale Webpage: http://www.fisheries.noaa.gov/pr/species/mammals/whales/humpback-whale.html
HumpbackWhaleRangeMap: NOAA's Humpback Whale Webpage: http://www.fisheries.noaa.gov/pr/species/mammals/whales/humpback-whale.html

Response Utility: Marine Mammals - Whales

4.1.A.6. Brydes Whale		
Status	**Petitioned for Endangered Protection Status (2014)**	**N/A***
Critical Habitat	**N/A**	



Potential Range by Area Committee Area of Operation							
MOB	STP	KYW	MIA	JAX	CHA	SAV	NC
X	X	X	X	X	X	X	X

Response Utility: Sea Turtles

4.1.B.3. Loggerhead Sea Turtle Northwest Atlantic DPS

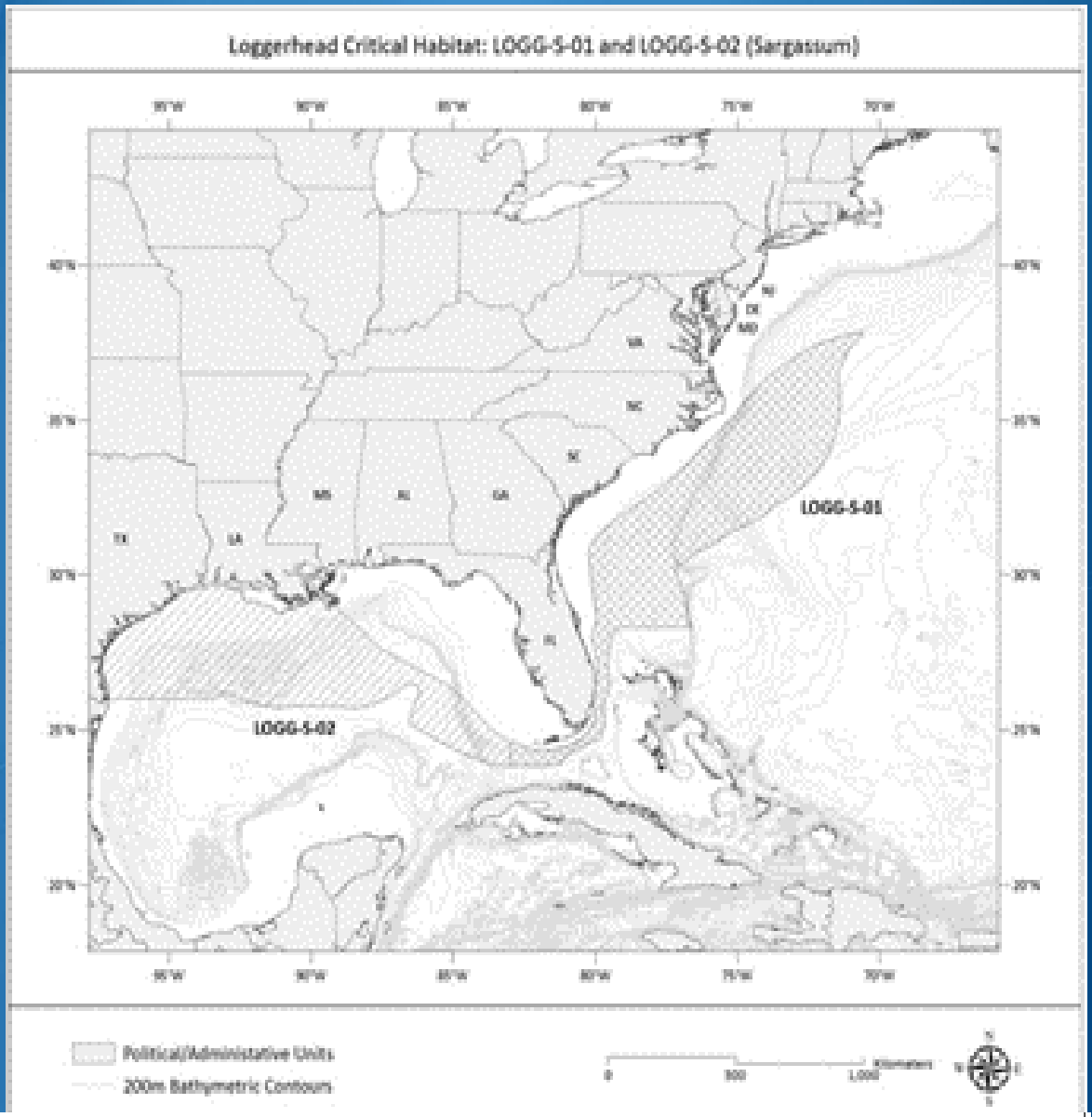
Status	**Threatened (2011)**	**76 FR 58868**
Critical Habitat	**79 FR 39856 (2014)**	

Potential Range by Area Committee Area of Operation

MOB	STP	KYW	MIA	JAX	CHA	SAV	NC
X	X	X	X	X	X	X	X

Response Utility: Loggerhead Sea Turtle Critical Habitat

- Winter
- Migration
- Breeding
- Nearshore Productive
- Sargassum

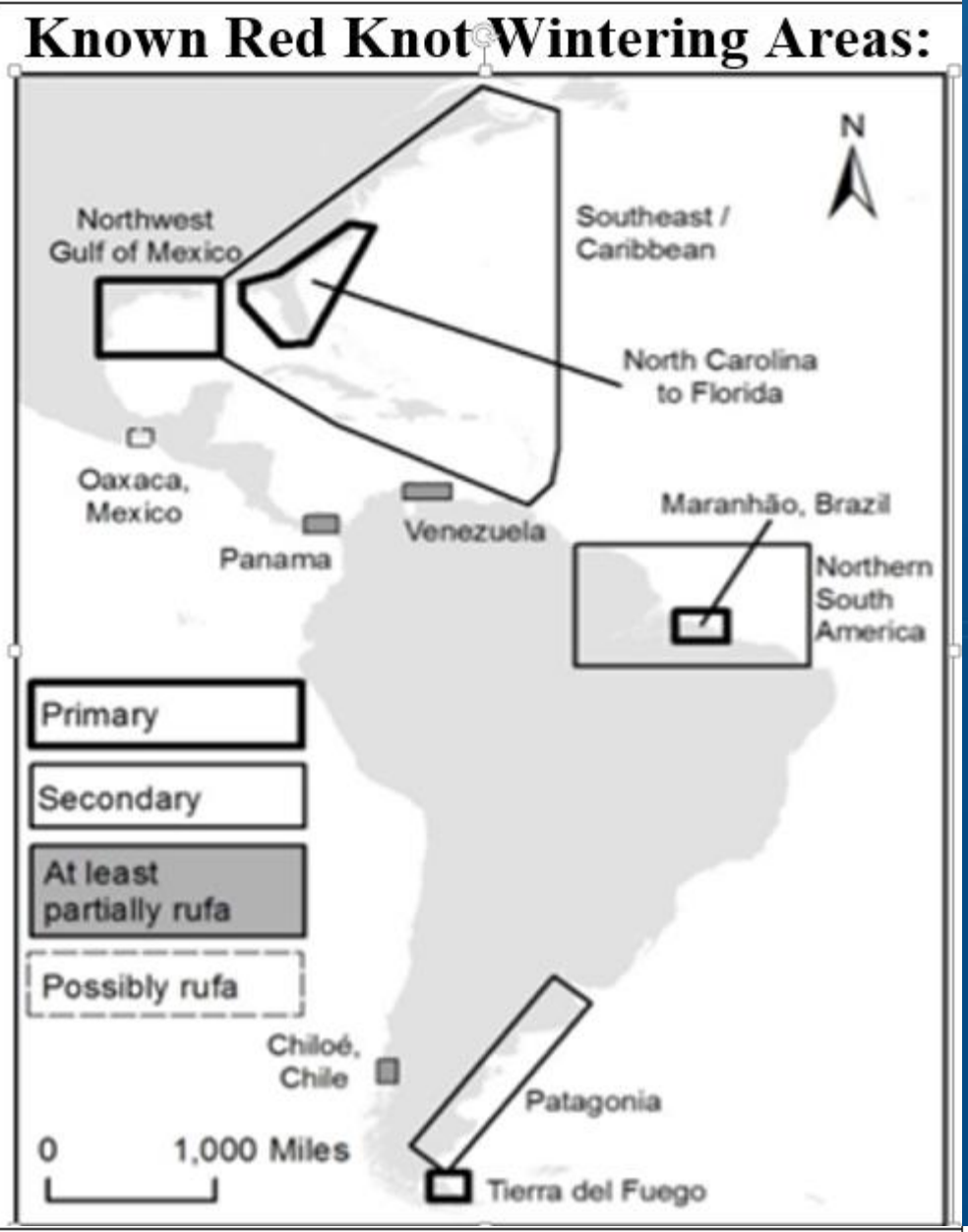


Potential Range by Area Committee Area of Operation							
MOB	STP	KYW	MIA	JAX	CHA	SAV	NC
X	X	X	X	X	X	X	X

Response Utility:
Red Knot - Birds

Status	**Threatened (2014)**
Critical Habitat	**N/A**

Known Red Knot Wintering Areas:



Potential Range by Area Committee Area of Operation

MOB	STP	KYW	MIA	JAX	CHA	SAV	NC
X	X	X	X	X	X	X	X

Response Utility:
Sample Table NOAA Listed Species

DRAFT DRAFT DRAFT

Table 4.1-1. Summary of Listed Species under the Jurisdiction of the National Marine Fisheries Service

Species	Status	MOB	STP	KYW	MIA	JAX	CHA	SAV	NC
Marine Mammals									
Sperm Whale	E	X	X	X	X	X	X	X	X
North Atlantic Right Whale	E			X	X	X	X	X	X
Humpback Whale	E	X	X	X	X	X	X	X	X
Fin Whale	E	X	X	X	X	X	X	X	X
Sei Whale	E	X	X	X	X	X	X	X	X
Brydes Whale	C	X	X	X	X	X	X	X	X
Sea Turtles									
Kemp's ridley	E	X	X	X	X	X	X	X	X
Green Sea Turtle	T	X	X	X	X	X	X	X	X
Loggerhead Sea Turtle Northwest Atlantic DPS	T	X	X	X	X	X	X	X	X
Leatherback Sea Turtle	E	X	X	X	X	X	X	X	X
Hawksbill Sea Turtle	E	X	X	X	X	X	X	X	X
Fish									
Smalltooth sawfish U.S. DPS	E	X	X	X	X	X	X	X	X
Gulf Sturgeon	T	X	X						
Scalloped Hammerhead Central & Southwest DPS	E	X	X	X	X	X	X	X	X
Atlantic Sturgeon Carolina DPS	E						X	X	X
Atlantic Sturgeon South Atlantic DPS	E				X	X	X	X	X
Shortnose Sturgeon	E				X	X	X	X	X
Nassau Grouper	C			X	X	X	X	X	X
Coral									
Elkhorn Coral	T			X	X				
Staghorn Coral	T			X	X				
Rough Cactus Coral	T		X	X	X	X			
Mountainous Star Coral	T		X	X	X	X			

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Response Utility:

Sample Table – NOAA Listed Critical Habitats

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Table 4.1-2. Summary of Designated Critical Habitat under the Jurisdiction of the National Marine Fisheries Service

Critical Habitat	F/P	MOB	STP	KYW	MIA	JAX	CHA	SAV	NC
North Atlantic Right Whale									
Southeast U.S.	F				X	X	X	X	
Southeast U.S.	P				X	X	X	X	X
Loggerhead Sea Turtle									
N-01 (Migrating) N-02 (Winter)	F								X
N-03 (Nearshore Productive)	F								X
N-04, N-05 Nearshore Productive	F						X		X
N-06 (Nearshore Productive)	F						X		X
N-07, N-08, N-09, N-10, N-11 (Nearshore Productive)	F						X	X	
N-12, N-13 (Nearshore Productive)	F					X	X	X	
N-14 (Nearshore Productive)	F					X		X	
N-15, N-16 (Nearshore Productive)	F					X			
N-17 (Nearshore Productive, Breeding, Migratory, Sargassum)	F				X	X			
N-18 (Nearshore Productive, Migratory)	F				X	X			
N-19 (Nearshore Productive, Breeding, Migratory)	F			X	X				
N-20 (Nearshore Productive)	F			X					
N-21, N-22, N-23 (Nearshore Productive)	F		X	X					
N-24, N-25, N-26, N-27, N-28 (Nearshore Productive)	F		X	X					
N-29, N-30 (Nearshore Productive)	F		X						
N-31, N-32 (Nearshore Productive)	F		X						
N-33, N-34, N-35, N-36 (Nearshore Productive)	F	X	X						
S-01, S-02 (Sargassum)	F	X	X	X	X	X			
Smalltooth Sawfish									

Gulf Sturgeon								
Unit 8	F	X						
Unit 9	F	X	X					
Unit 10	F	X	X					
Unit 11	F		X					
Unit 12	F		X	X				
Unit 13	F		X	X				
Unit 14	F		X	X				
Elkhorn and Staghorn Coral								
Acropora Area 1 (Florida)	F			X	X			
Johnsons Seagrass								
10 Units	F				X			
Final - F Proposed – P								

Charlotte Harbor Estuary Unit	F		X					
Ten Thousand Islands/Everglades Unit	F		X	X	X			

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Response Utility:

Sample Table – USFWS Listed Species

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Species	Status
OUTSIDE	
Florida Panther	E
Florida Marsh Vole	E
Gray Bat	E
Indiana Bat	E
Key Deer	E
Key Largo Cotton Mouse	E
Key Largo Woodrat	E
Lower Keys Marsh Rabbit	E
Rice Rat	E
Southeastern Beach Mouse	T
St. Andrew Beach Mouse	E
NO F	

Table 4.2-1. Summary of Listed Species under the Jurisdiction of the U.S. Fish and Wildlife Service

Species	Status	MOB	STP	KYW	MIA	JAX	CHA	SAV	NC
WITHIN THE ACTION AREA									
West Indian Manatee	E	X	X	X	X	X	X	X	X
Gulf Sturgeon	T	X	X						
Red Knot	E	X	X	X	X	X	X	X	X
NO FURTHER SPECIES TO REPORT									
OUTSIDE THE ACTION AREA									
SIRENIA									
NO FURTHER SPECIES TO REPORT									
FISH									
Alabama Sturgeon	E	X							
NO FURTHER SPECIES TO REPORT									
BIRDS									
Roseate Tern	T		X	X	X				X
Piping Plover	T	X	X	X	X	X	X	X	X
Wood Stork	T	X	X	X	X	X	X	X	X
Cape Sable Seaside Sparrow	E		X	X	X	X			
NO FURTHER SPECIES TO REPORT									
REPTILES									
Alabama Red-belly Turtle	E	X							
American Alligator	E	X	X	X	X	X	X	X	X
American Crocodile	T		X	X	X	X			
Atlantic Salt Marsh Snake	T		X	X	X	X			
Black Pine Snake	P	X							
Bluetail Mole Skink	T		X	X	X	X			

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Eastern Indigo Snake	T	X	X	X	X	X		X	
Gopher Tortoise	T/P	X	X	X	X	X		X	
NO FURTHER SPECIES TO REPORT									
MAMMALS									
Alabama Beach Mouse	E	X							
Anastasia Island Beach Mouse	E		X	X	X	X			
Choctawhatchee Beach Mouse	E		X	X	X	X			
Florida Bonneted Bat	E		X	X	X	X			

E – Endangered T – Threatened C - Candidate

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Response Utility:
Protocols & Conservation Measures

BMP	Action	Responsibility
1.4.	**Marine Mammals and Sea Turtles**	FOSC
1.4.A.	Watch for marine mammals and sea turtles while	
1.4.B.		
1.5.	**Birds**	FOSC
1.5.A.	Watch for rafting or flocking birds while operating	
1.5.B.		
2.7.	**Essential Fish Habitat**	FOSC
2.7.A.	Watch for sargassum/drift algae while operating vessels or aircraft involved directly or in support of in-situ burn	
2.7.		
2.7.		
2.6.	**West Indian Manatee**	FOSC
2.6.A.	**Awareness** Instruct all personnel associated with vessel operations of the potential presence of manatees and the need to avoid collisions with manatees. All personnel are responsible for observing water-related activities for the presence of manatees. If manatees are seen within 100 yards, all appropriate precautions shall be implemented to ensure their protection.	FOSC
2.6.B.	**Manatees within 50 feet** No operation of any moving equipment within 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area on its own.	FOSC
2.6.C.	**Collisions with Manatee** Any collision with and/or injury to a manatee shall be reported immediately to the FWS RAR Specialist and appropriate state trustee.	FOSC

Environmental Consultant Hired

- Extremely fortunate for RPI's support
- Needed for Guidance
- Needed for Baseline
  - Toxicity / Modeling (Plume)
  - Latest review of scientific information
  - Are Dispersants and ISB operations a viable option?
- Needed for Content Analysis
  - Best available information

Dr. Jacqui Michel

&

Dr. Adriana Bejarano

Expert Analysis – Bridging management, policy, field, scientific, and academia communities together

- Latest Science of Dispersants, In-Situ burn ops
  - 250+ scientific references used, covering latest information from labs and DWH
- Latest Policy Changes including new listing of species and critical habitats
- Latest Understanding of Resources and Technology

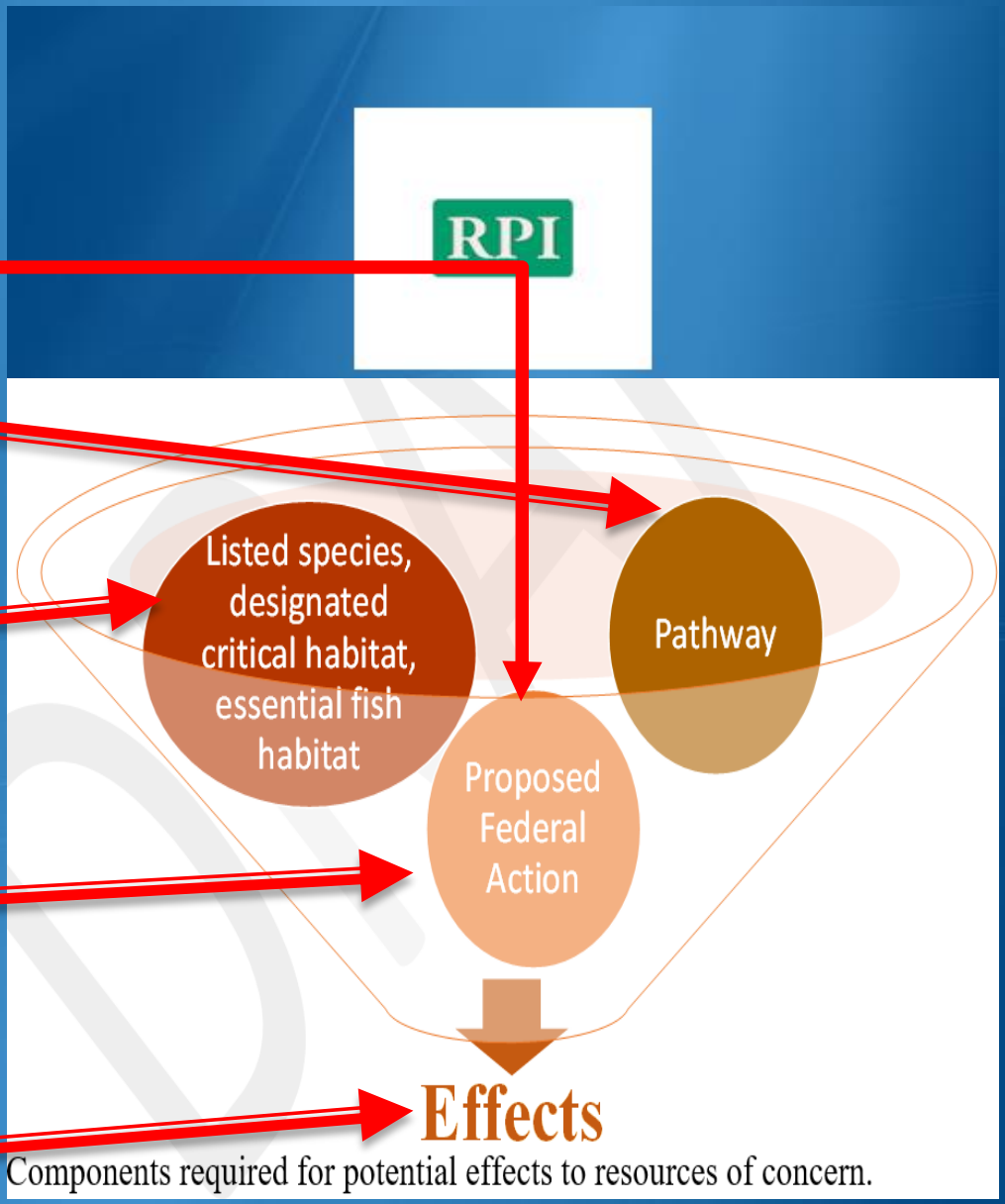
The Outline!!!

Chapter 1 (Introduction)
Chapter 2 (Proposed Action)
(Protocols, &)
(Toxicity)

Chapter 3 (List of Species,
Critical Habitats,
Essential Fish Habitats)

Chapter 4 (Environmental
Baseline)

Chapter 5 (Effects of Action
Chapter 6 in the
Chapter 7 Green Zone)



Components required for potential effects to resources of concern.

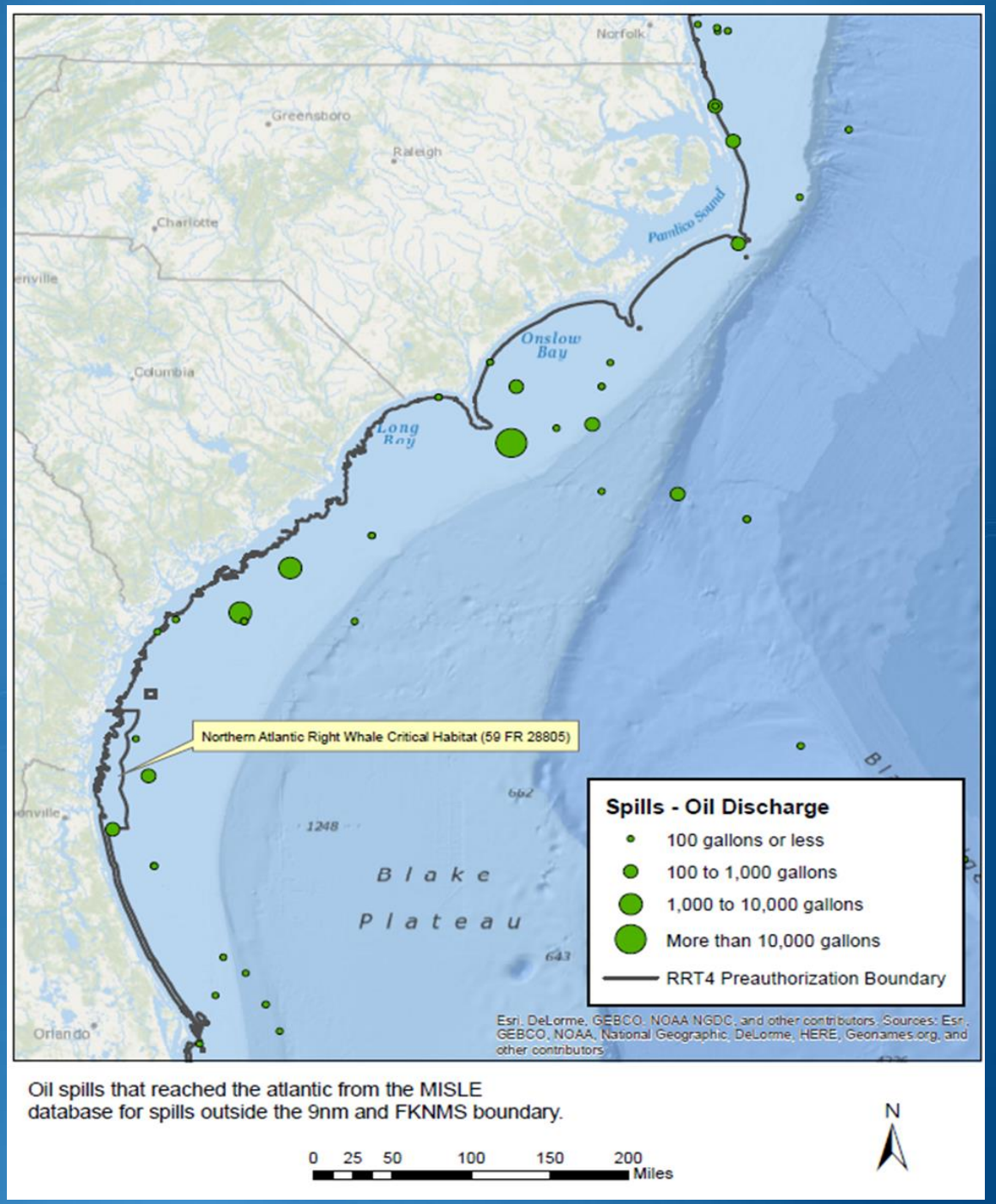
(Bejarano – Research Planning, Inc., 2016)

BASELINE HIGHLIGHT
Oil Spill Risk Analysis

- MISLE Data collected (2002-2015)
- Analyzed (Location, Size, Types of Oil Spilled)
- 10 Dispersant Scenarios
- 5 Locations
  - MS, AL
  - Tampa
  - Key West
  - Savannah/Charleston
  - North Carolina
- 2 Oil Types

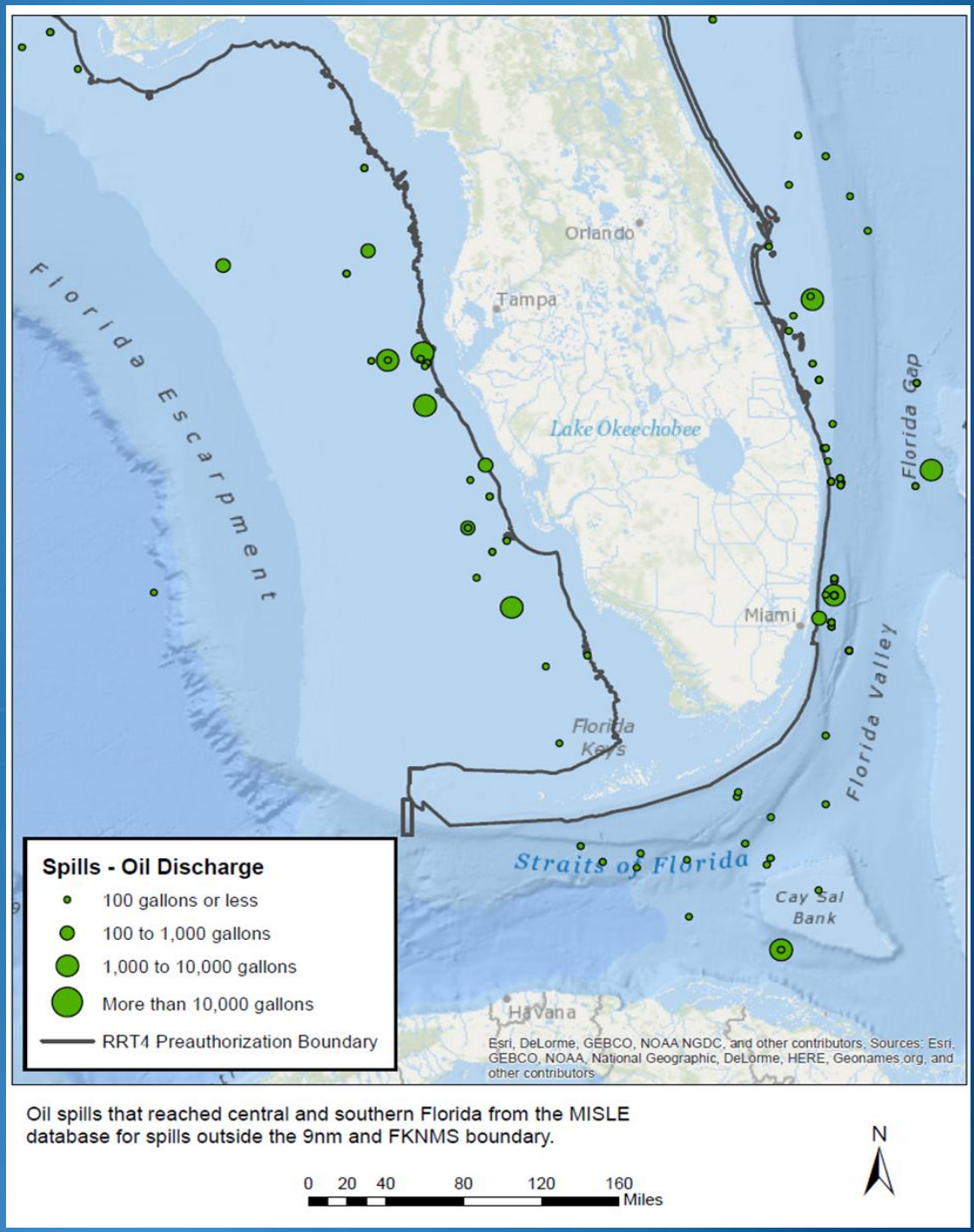
USCG MISLE Data Analysis

- 2002-2015
- Outliers Possible
  - But its what we have, and it is useable!



USCG MISLE Data Analysis

- 2002-2015
- Outliers Possible
  - But its what we have, and it is useable!



USCG MISLE Data Analysis

- 2002-2015
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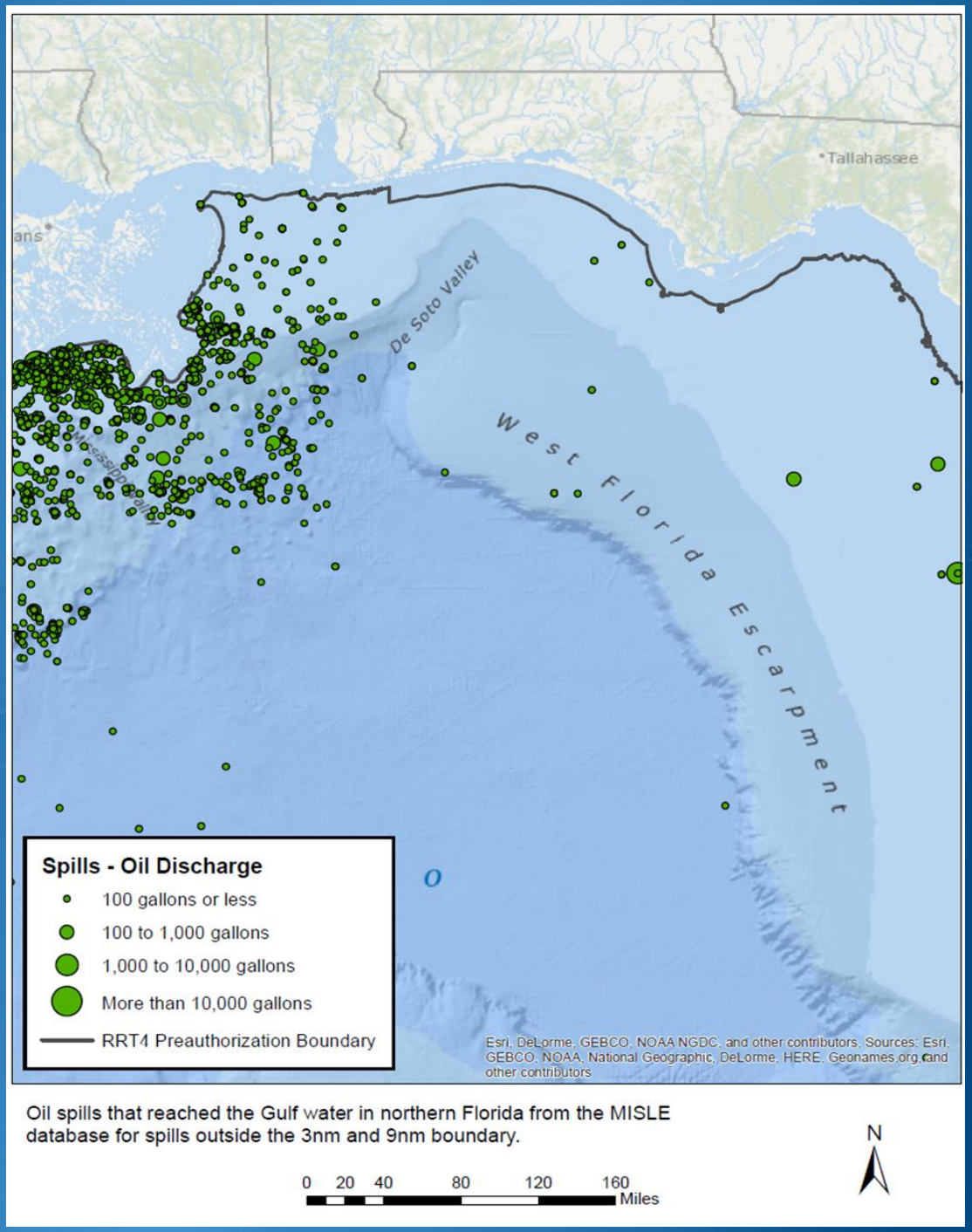
  - But its what we have, and it is useable!



10 Scenarios Used – Dispersants

Scenario Name	Water body	Source	Oil Type	Volume (gal)	Distance Offshore (miles)	Location Offshore	Platform	Deployment Location	Cascade Location	Transit Distance (nautical miles)	Spray Ratio	Application Rate (gal/acre)	Pass Length (nautical miles)	Operating Hours (not including Cascade)	Cascade Hours	Max Dispersant Delivery (gallons)	Max Treated Oil (gallons)	Max Treated Area (acres)	Immediate Dispersant Available	Cascade Dispersant Available
Gulf Large	Gulf	Tanker Ship	Heavy Weight Crude	1 Mil	15	From barrier islands between Mississippi and Alabama	C-130A	Kiln, MS	None	65	1:20	5	5	12	0	19,500	390,000	3,900	16,009-gal EC9500A in Kiln, MS	11,550-gal in Galveston, TX can arrive in <8 hrs
Gulf Large High Application												10				22,750	454,986	2,298		
Gulf Small Long Cascade	Gulf	Barge	No. 6 Fuel Oil	100,000	120	From Key West, FL	C-130A	Kiln, MS	540 mi to Key West	120	1:20	5	2	8.9	3.1	10,169 (only 9,520 available)	203,000	2,034	3,250-gal EC9500A on aircraft	990-gal in Miami, FL can arrive in <4hrs; 5,280-gal in Tampa, FL can arrive in <8hrs
Gulf Small Long Cascade High Application												10				13,000 (only 9,520 available)	259,980	1,313		
Gulf Small	Gulf	Barge	No. 6 Fuel Oil	100,000	50	From Tampa Bay	C-130A	Kiln, MS	390 mi to Tampa	75	1:20	5	2	9.4	2.6	13300 (only 9,520 available)	260,000	2,600	3,250-gal EC9500A on aircraft	5,280-gal in Tampa, FL; 990-gal in Miami, FL can arrive in <6hrs
Gulf Small High Application												10				16,250 (only 9.520 available)	324,996	1,641		
Atlantic Small	Atlantic	Barge	No. 6 Fuel Oil	100,000	50	From shore between Savannah and Charleston	Beachcraft King Air BE-90A	Salisbury, MD	450 mi to Savannah	60	1:20	5	2	8.1	3.9	2,550	51,000	510	425-gal EC9500A on aircraft	6,930-gal in Savannah
Atlantic Small High Application												10 (requires low speed)				2,975	59,514	301		
Atlantic Large	Atlantic	Tanker Ship	Heavy Weight Crude	1 Mil	140	From boundary waters of North Carolina	C-130A	Kiln, MS	820 mi Salisbury	210	1:20	5	5	8	4	9,750	195,000	1,950	3,250-gal EC9500A on aircraft	330-gal in Salisbury, MD; 9,910-gal in Chesapeake City, MD can arrive in <3hrs
Atlantic Large High Application												10				9,750	195,006	985		

BA Outcomes: Determination of Effect of Action on Listed Species & Habitats

- Assessment is still being completed
- Results/Determinations will be made by NOAA & USFWS upon review of BA.

No Effect, Insignificant

May Effect, Not Likely to Adversely Effect

May Effect, Likely to Adversely Effect

Will Effect

New Action Details/Future Timeline

- March 2016 – Coordinate with RRT6 to develop common protocols and forms
- March/April 2016 – Draft BA Complete
- April 2016 – Letters/BA from RRT4 to Services
- TBD - Await Determination from the Services
- TBD – Review Responses/Update RCP BA Outcome
- TBD – Update RCP/ACP/GRPs Conservation Measures
- TBD - Brief Area Committees on Final BA
- Annual Verification -BA will be verified Annually by RRT4 w/ Services
  - BA Verification Period – January thru March.

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  - Claire Roberts
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  - Dr. Jacqueline Michel
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  - Dr. Roger Pugliese
- U.S. Navy
  - Mr. John Baxter
- EPA
  - Gary Andrews
  - Jim Webster
  - Steve Touw
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Biological Assessment
Re-Initiated for the
Preauthorized Dispersant and In-Situ Burn Operation Plans

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&

Kevin Boyd, LCDR, USCG

Science & Technology Workgroup
Region 4 Regional Response