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Tab P, No. 5(a)

Public comment opportunity for Draft Programmatic Environmental Impact Statement (DPEIS) for the Identification of Aquaculture Opportunity Areas (AOAs) in U.S. Federal Waters of the Gulf of Mexico

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National Marine Fisheries Service (NOAA Fisheries)

Southeast Regional Office, St. Petersburg, Florida

January 27, 2025

Gulf of Mexico Fishery Management Council Meeting, New Orleans, LA

Habitat Protection and Restoration Committee

Overview

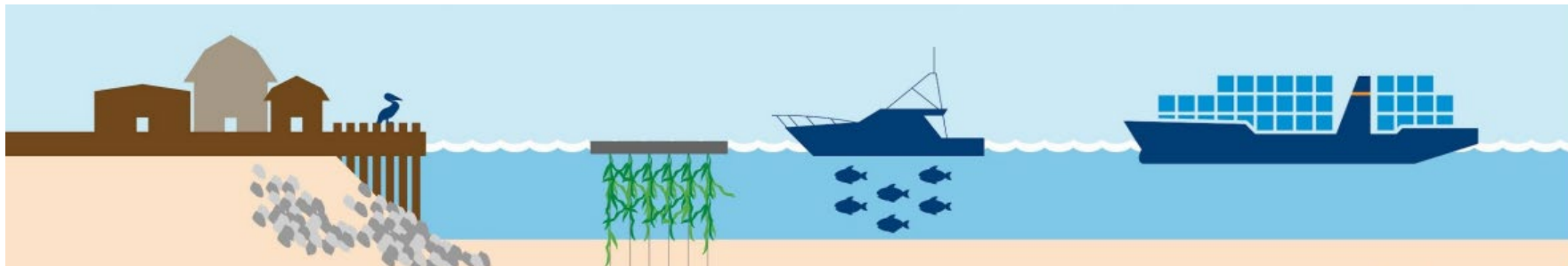
- NOAA's efforts to identify Aquaculture Opportunity Areas
- Draft Programmatic Environmental Impact Statement for the Identification of Aquaculture Opportunity Areas in U.S. Federal Waters of the Gulf of Mexico
- Public review and comment opportunities

Executive Order 13921 (2020)

- Executive Order 13921, *Promoting American Seafood Competitiveness and Economic Growth* (May 7, 2020)
 - Section 7:
 - Identify geographic areas suitable for commercial aquaculture (**Aquaculture Opportunity Areas or AOAs**)
 - Complete a **Programmatic Environmental Impact Statement (PEIS)** for each area
- Federal waters of the Gulf of Mexico selected as one of the first two regions in which AOAs may be identified

What is an Aquaculture Opportunity Area (AOA)?

- AOA: defined geographic area that has been evaluated to determine its potential suitability for commercial aquaculture.
- May be suitable for finfish, shellfish, seaweed and/or multi-species aquaculture
- Goal: **environmental, social, and economic suitability**
- Identified using **scientific analysis and public engagement**
 - After completion of a **final programmatic environmental impact statement (PEIS)** and issuance of a **Record of Decision (ROD)**.



Identifying AOAs in the Gulf of Mexico

- NOAA Fisheries is considering identifying one or more AOAs in federal waters in the Gulf of Mexico
- PEIS evaluates the general adverse and beneficial impacts of identifying AOAs and siting aquaculture in potential AOA locations
- **This is a planning process. No specific aquaculture activities or individual projects are being proposed or evaluated.**

Timeline of Gulf of Mexico AOA Identification Process

May 2020



Coming
Summer/Fall
2025

Executive Order 13921 signed	May 2020
Gulf of Mexico selected as one of first regions for AOAs	Aug. 2020
Request for Information to inform AOAs	Oct. 2020
Aquaculture Opportunity Atlas published	Nov. 2021
Notice of Intent to prepare PEIS published/60-day public scoping period	June 2022
Presentation at GMFMC Meeting - Fort Myers	June 2022
Public Scoping Summary published	May 2023
Draft PEIS published/90-day public review and comment period	Nov. 2024
Public comment period concludes	Feb. 2025
Review public comments/draft FPEIS	Spring 2025
Publish FPEIS and Response to Comments	Summer 2025
Publish Record of Decision	Summer 2025



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Interagency Coordination



**US Army Corps
of Engineers®**



U.S. AIR FORCE



BOEM
Bureau of Ocean Energy
Management



- Interagency team advising and supporting development of Gulf AOA PEIS.
- Goal of developing PEIS that would inform future permitting and environmental review process for those agencies.



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DPEIS Purpose and Need

- Apply a science-based approach to identify AOAs in federal waters of the Gulf of Mexico.
- Meet the directives of Executive Order (E.O.) 13921, to address the increasing demand for seafood; facilitate long-term planning for marine aquaculture development; and address interests and concerns regarding offshore marine aquaculture siting.
- Promote American seafood competitiveness, food security, economic growth, and support the development of domestic commercial aquaculture, while sustaining and conserving marine resources, consistent with applicable laws, regulations, and policies.



Proposed Action

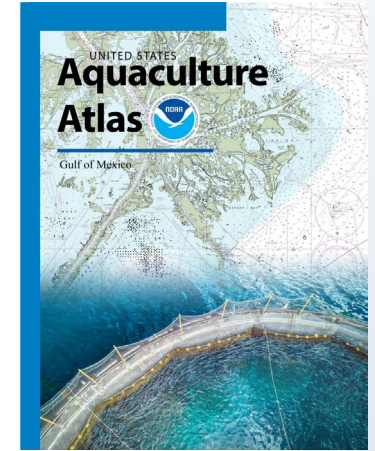
- Identify locations (AOAs), that may be suitable for multiple future offshore aquaculture operations in U.S. federal waters in the Gulf of Mexico, and to evaluate the potential impacts associated with siting aquaculture in those locations in the future.
- DPEIS analyzes the potential impacts of identifying up to five AOAs in federal waters of the Gulf and discusses the potential impacts of siting commercial aquaculture operations within those locations at a future time.

About This Action

- **Does not** change existing permitting, authorization, consultation or environmental review requirements for future offshore aquaculture operations.
- **Does not** propose or evaluate any individual aquaculture projects or activities.
- Identifying AOAs is a planning effort.

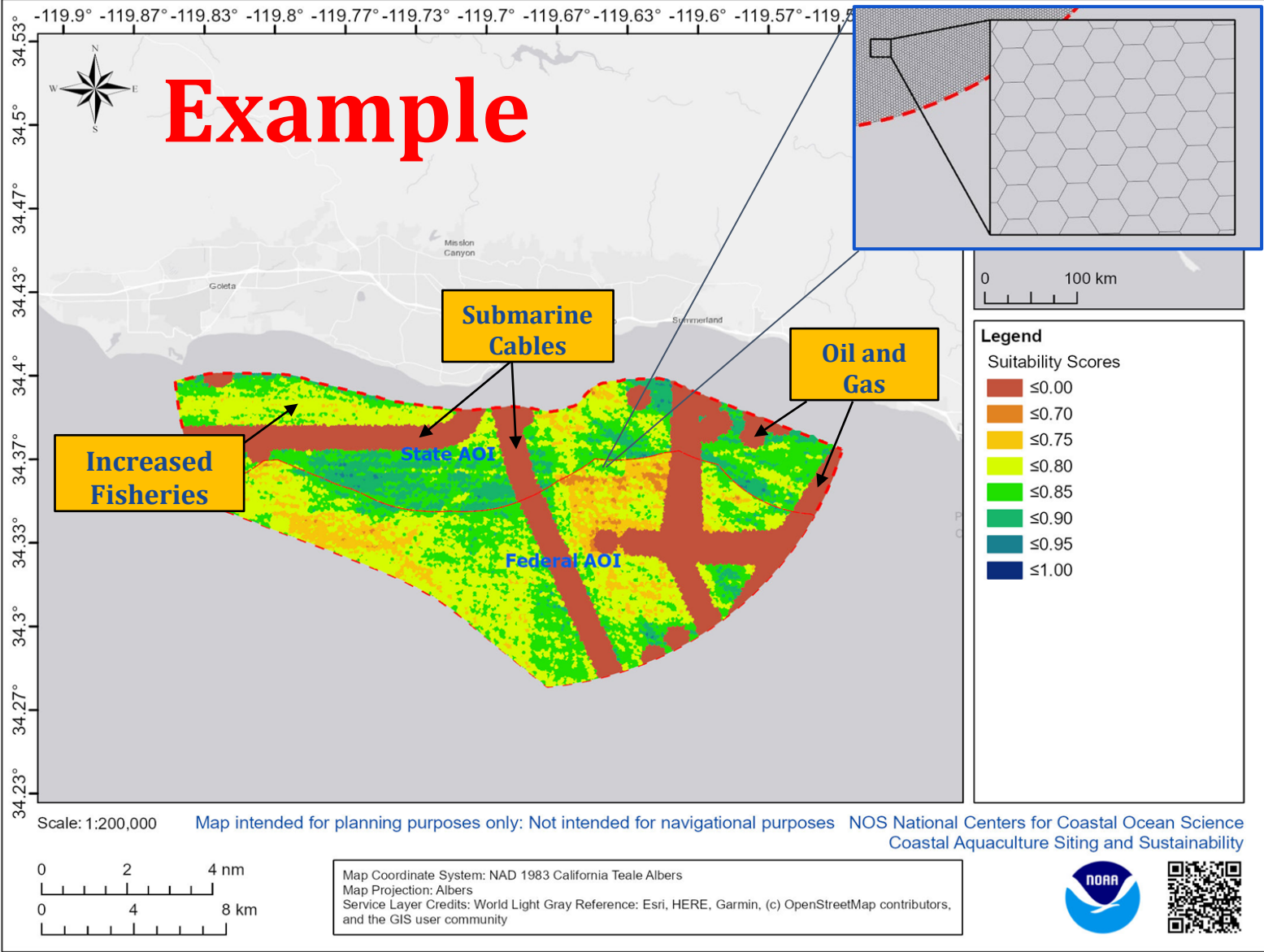
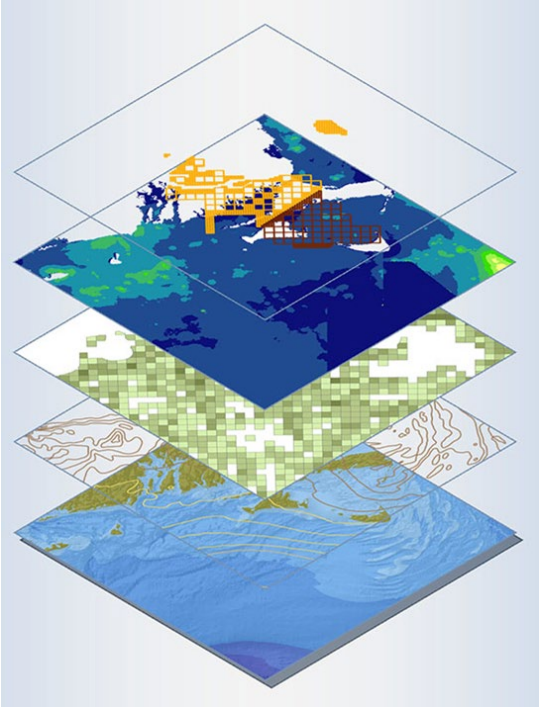
Aquaculture Opportunity Atlas for U.S. Gulf of Mexico

- Published by NOAA NOS NCCOS (November 2021)
- Most comprehensive regional MSP ever conducted for US federal waters
- 220 data layers utilized
- Over 150 maps that describe the ocean in new and unique ways
- Comprehensive stakeholder engagement
- Independently Reviewed
- Framework for future AOAs and other ocean pioneering industries (i.e. wind energy development)



Suitability modeling

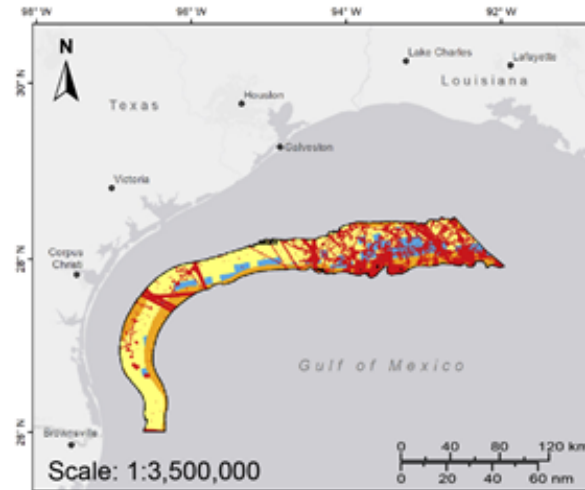
We identify areas of **highest opportunity** for aquaculture. Areas that provide highest conservation and lowest conflict with other users.



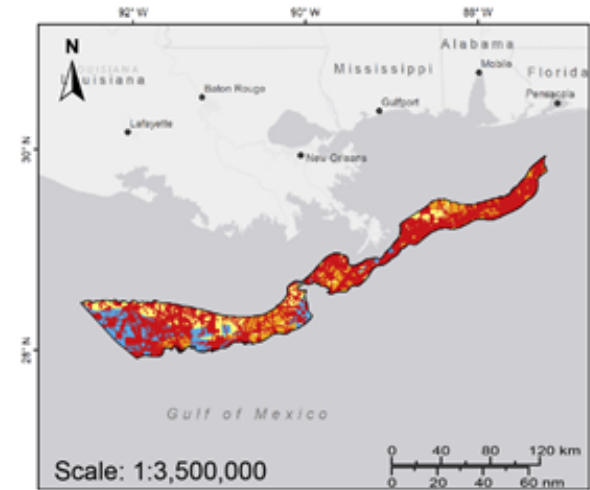
Gulf of Mexico

Final Suitability

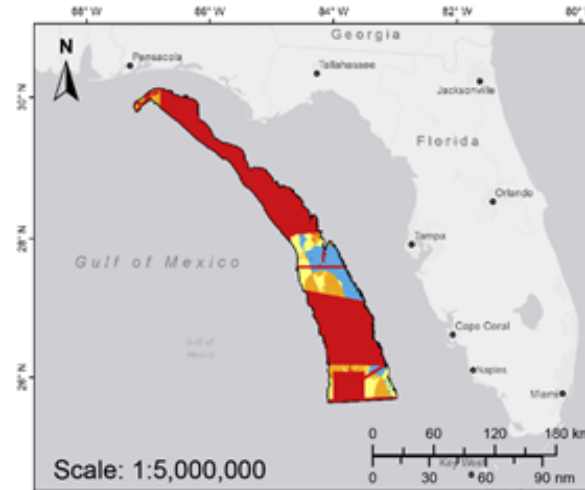
West Study Area



Central Study Area



East Study Area



Southeast Study Area



Final Suitability



Precision Siting Model

Top 9 AOA options identified

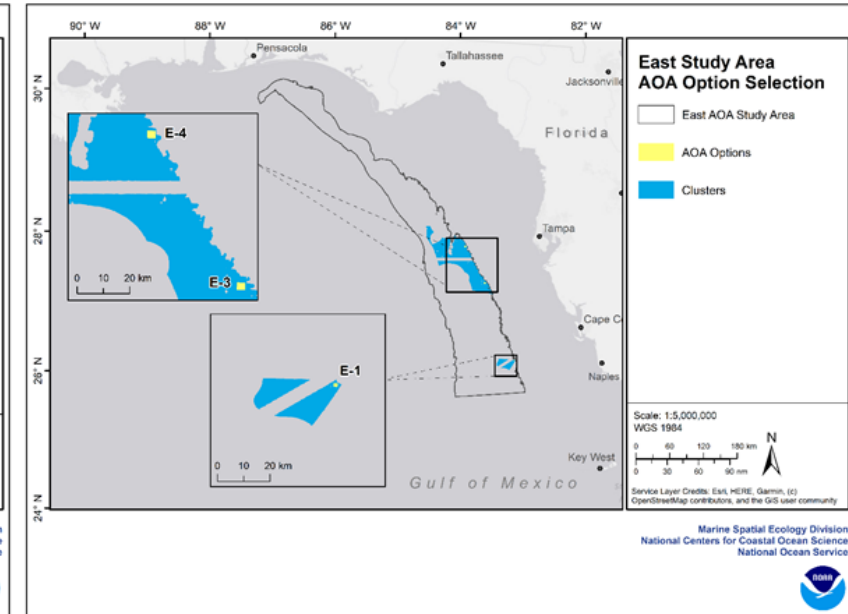
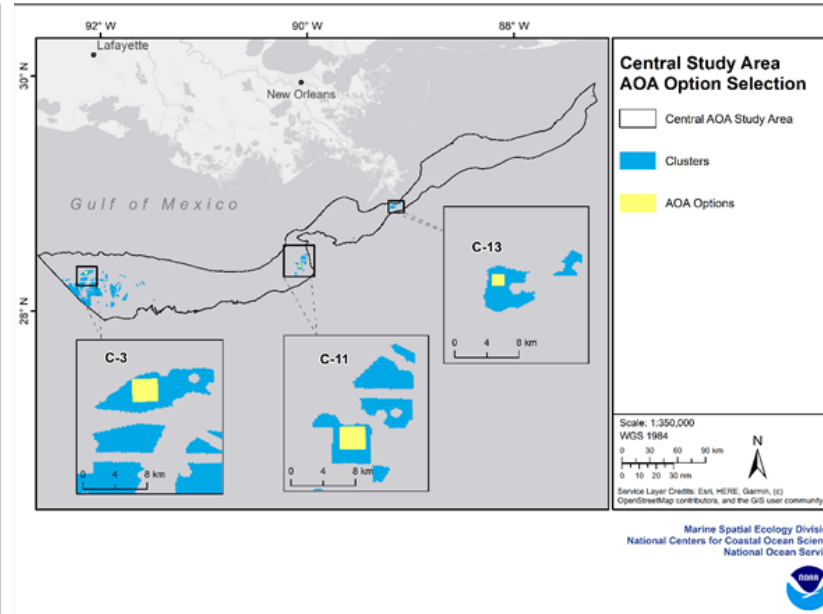
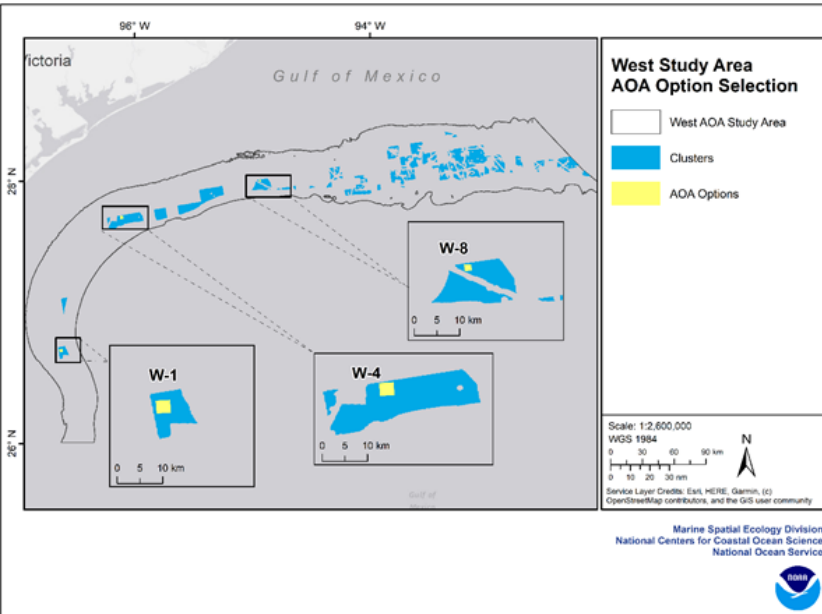
Study parameters: Federal waters, 50-150m depth, 500-2000 acres and a 30-nm dispersion rule applied to avoid overlap

13,500 acres

West Region

Central Region

East Region



Site	Size (acres)	Depth Average (m)	Closest Inlet (nm)
W-1	2,000	91	35
W-4	2,000	84	42
W-8	500	81	58

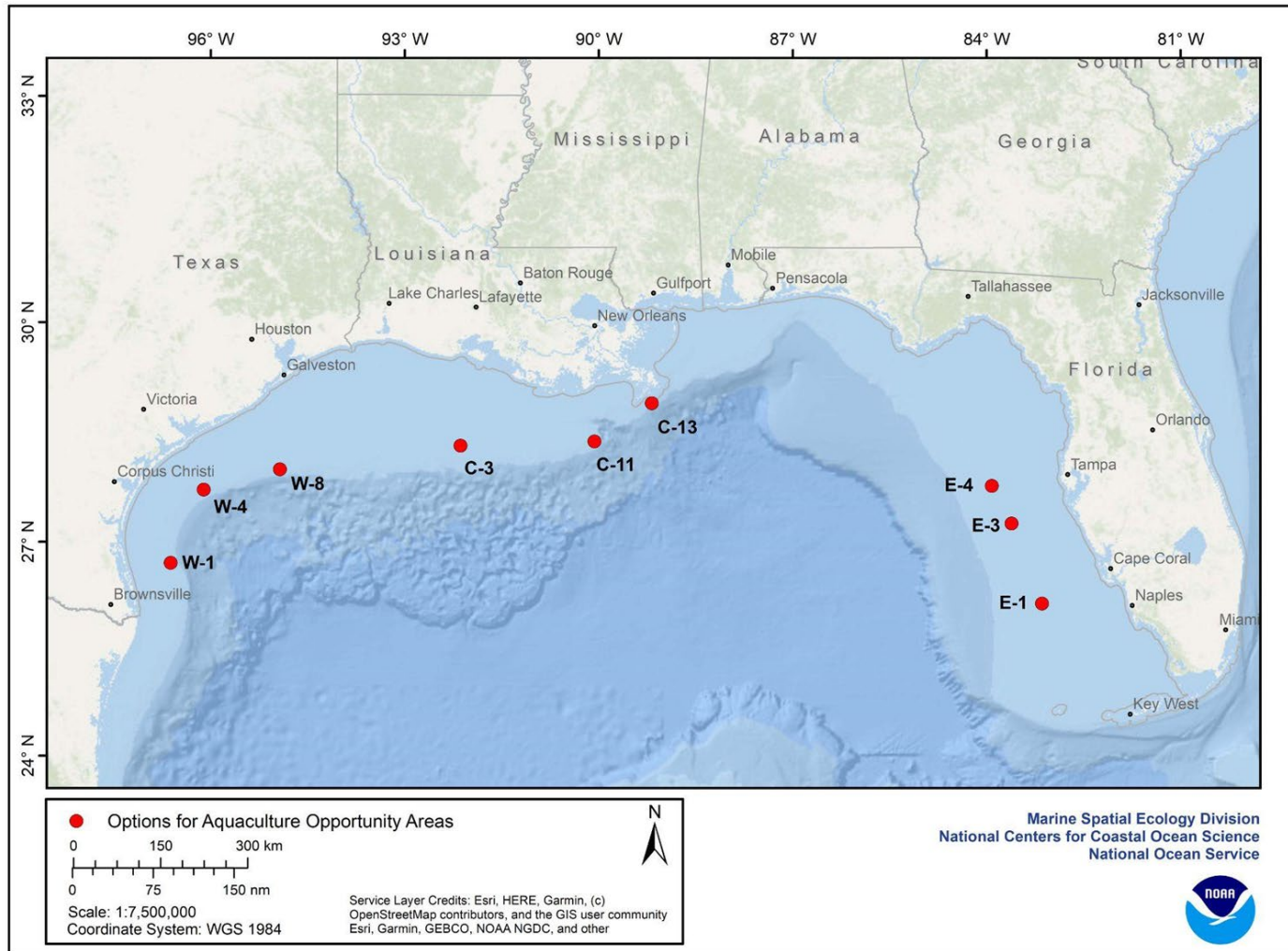
Site	Size (acres)	Depth Average (m)	Closest Inlet (nm)
C-3	2,000	61	72
C-11	2,000	82	41
C-13	500	62	5

Site	Size (acres)	Depth Average (m)	Closest Inlet (nm)
E-4	2,000	51	58
E-3	2,000	51	48
E-1	500	51	56



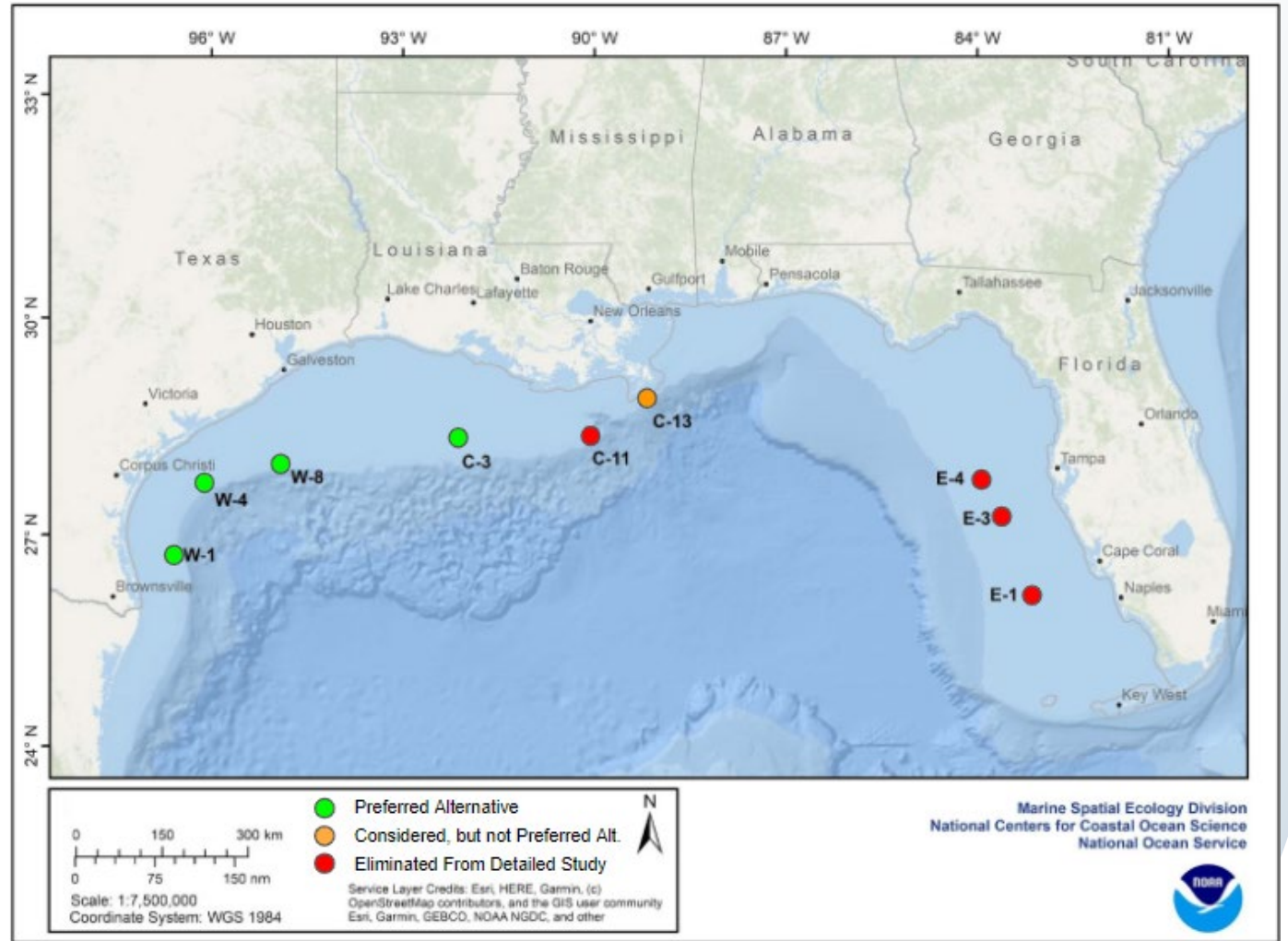
Preliminary Alternatives Proposed

- Preliminary alternatives proposed in NOI
- Build on the foundation of information from Gulf Atlas
- Consider scoping comments from stakeholders, Gulf Atlas, federal agency input, new information



Alternatives of the DPEIS

- No Action Alternative
- 5 - locations considered (W-1, W-4, W-8, C-3 and C-13)
 - 4 - Preferred Alternatives (W-1, W-4, W-8 and C-3)
6,500 acres in total
- 4 - locations removed from further detailed study (E-1, E-3, E-4 and C-11)
 - C-11 - High shrimp trawl activity
 - E-1, E-3, E-4 - Military readiness/training activities



Alternatives

- **Alternative 1: No Action**

- NMFS would not identify AOAs in federal waters of the Gulf of Mexico.
- Aquaculture development could still occur. Operations sited outside of areas analyzed in DPEIS would not benefit from preliminary environmental review of potentially suitable sites.

- **(Preferred) Alternative 2: Atlas AOA Option W-1**

- W-1, a 2,000-acre area located approximately 79 km (43.0 nm) east of Port Mansfield, TX, and 90 km (48.6 nm) northeast of Port Isabel, TX, would be identified as an AOA in federal waters of the Gulf.
- The location would be considered potentially suitable for all types of commercial aquaculture, including finfish, shellfish, macroalgae or multi-species operations.



Alternatives

- **(Preferred) Alternative 3: Atlas AOA Option W-4**

- W-4, a 2,000-acre area located approximately 89.8 km (48.5 nm) southeast of the Port Aransas Inlet entering Corpus Christi Bay, TX and 103.4 km (55.8 nm) southeast to the inlet entering Matagorda Bay, TX, would be identified as an AOA in federal waters of the Gulf.
- The location would be considered potentially suitable for all types of commercial aquaculture, including finfish, shellfish, macroalgae or multi-species operations.

- **(Preferred) Alternative 4: Atlas AOA Option W-8**

- W-8, a 500-acre area located approximately 107.4 km (58.0 nm) southeast of Freeport, TX, would be identified as an AOA in federal waters of the Gulf.
- The location would be considered potentially suitable for all types of commercial aquaculture, including finfish, shellfish, macroalgae or multi-species operations.

Alternatives

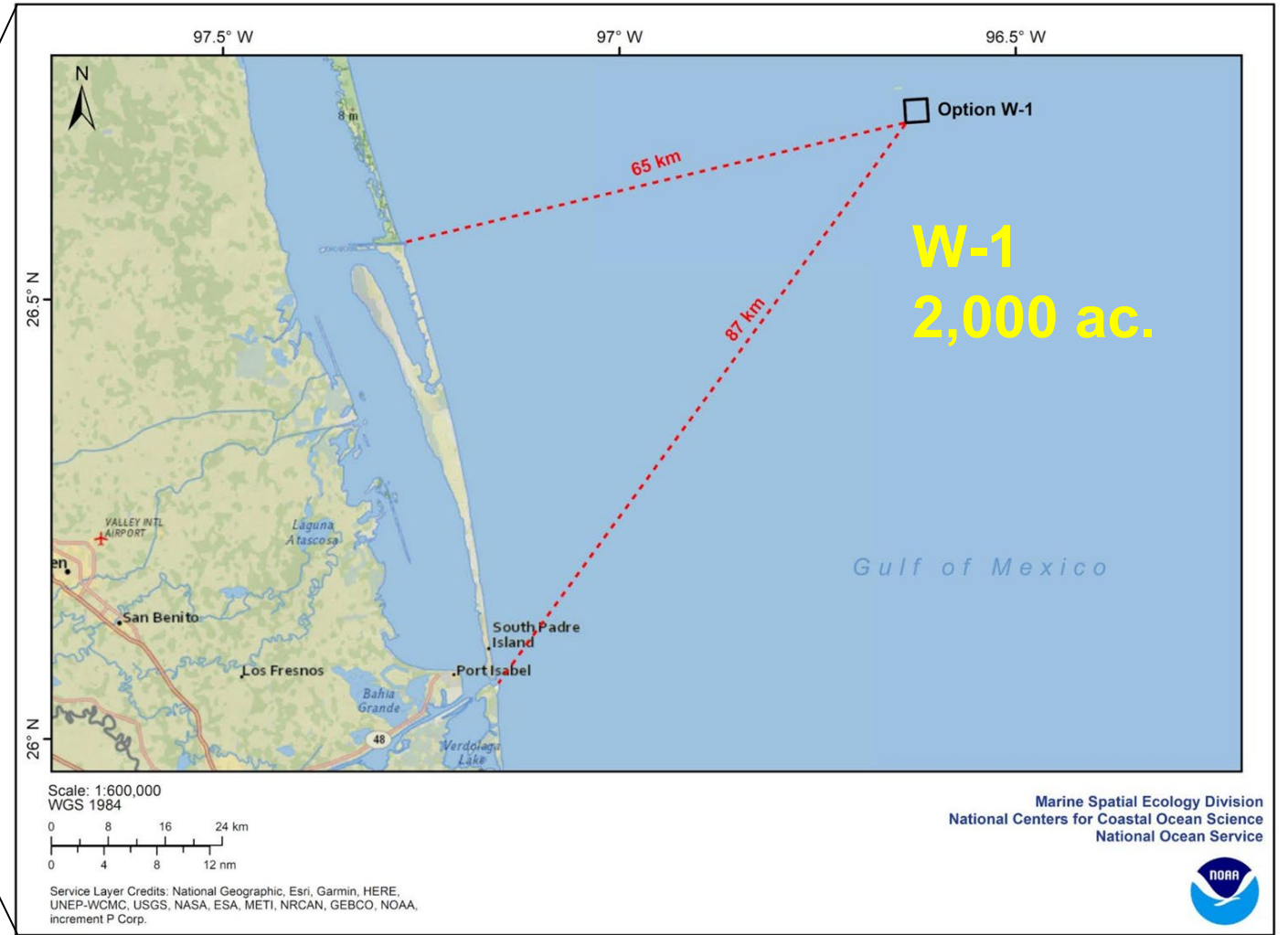
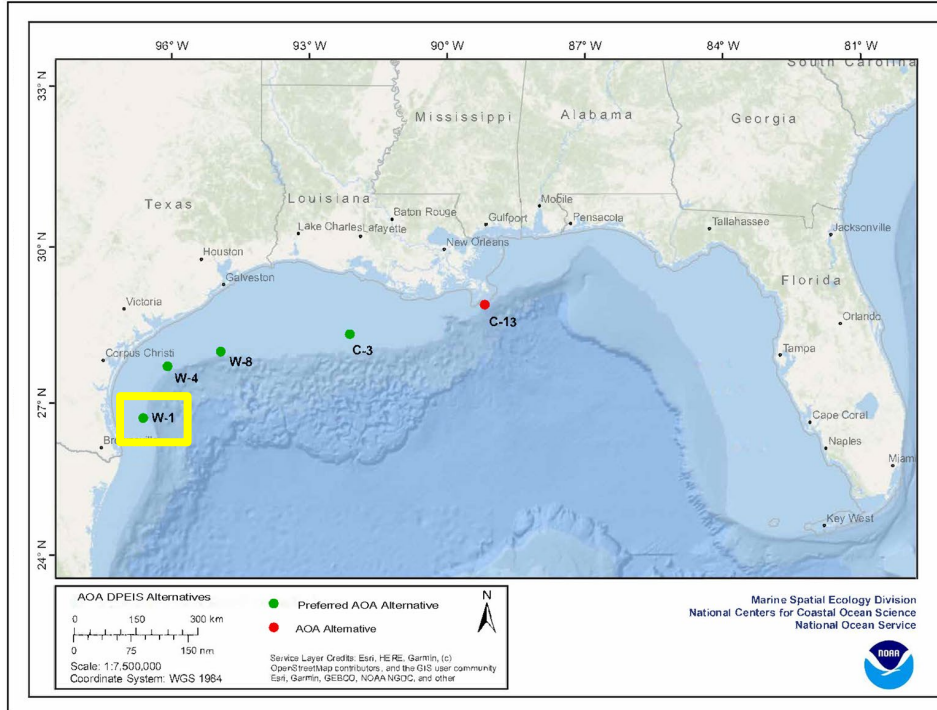
- **(Preferred) Alternative 5: Atlas AOA Option C-3**

- C-3, 2,000-acre area located approximately 133.4 km (72.0 nm) south of Pecan Island, LA and 137.5 km (74.2 nm) south of Marsh Island, LA would be identified as an AOA in federal waters of the Gulf.
- The location would be considered potentially suitable for all types of commercial aquaculture, including finfish, shellfish, macroalgae or multi-species operations.

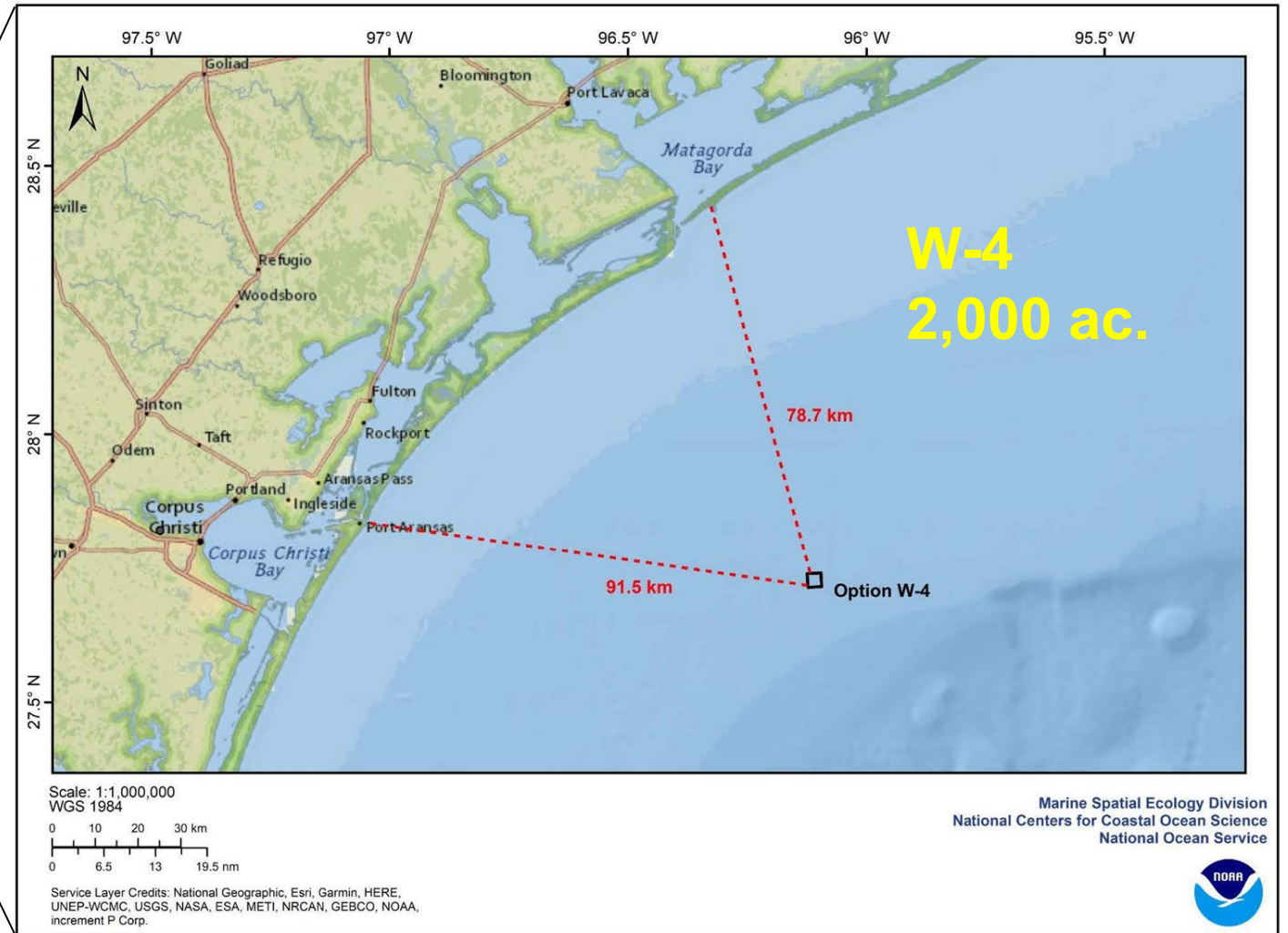
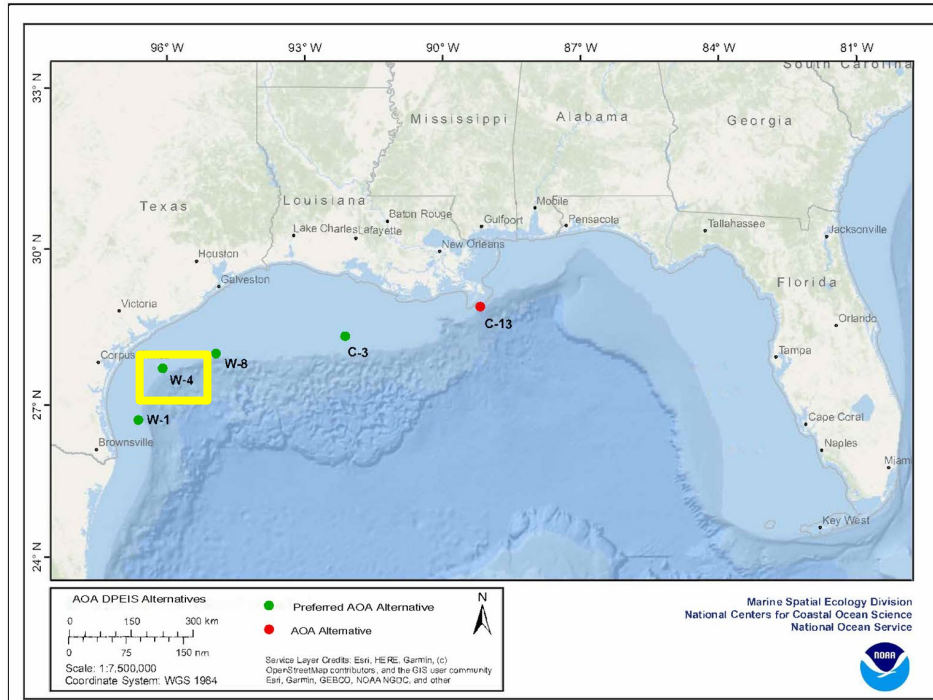
- **Alternative 6: Atlas AOA Option C-13**

- C-13, a 500-acre area located approximately 36 km (20 nm) downriver from Venice, LA; 9.6 km (5.2 nm) from the inlet at South Pass and 21.8 km (11.8 nm) from Southwest Pass, would be identified as an AOA in federal waters of the Gulf.
- The location would be considered potentially suitable for all types of commercial aquaculture, including finfish, shellfish, macroalgae or multi-species operations.

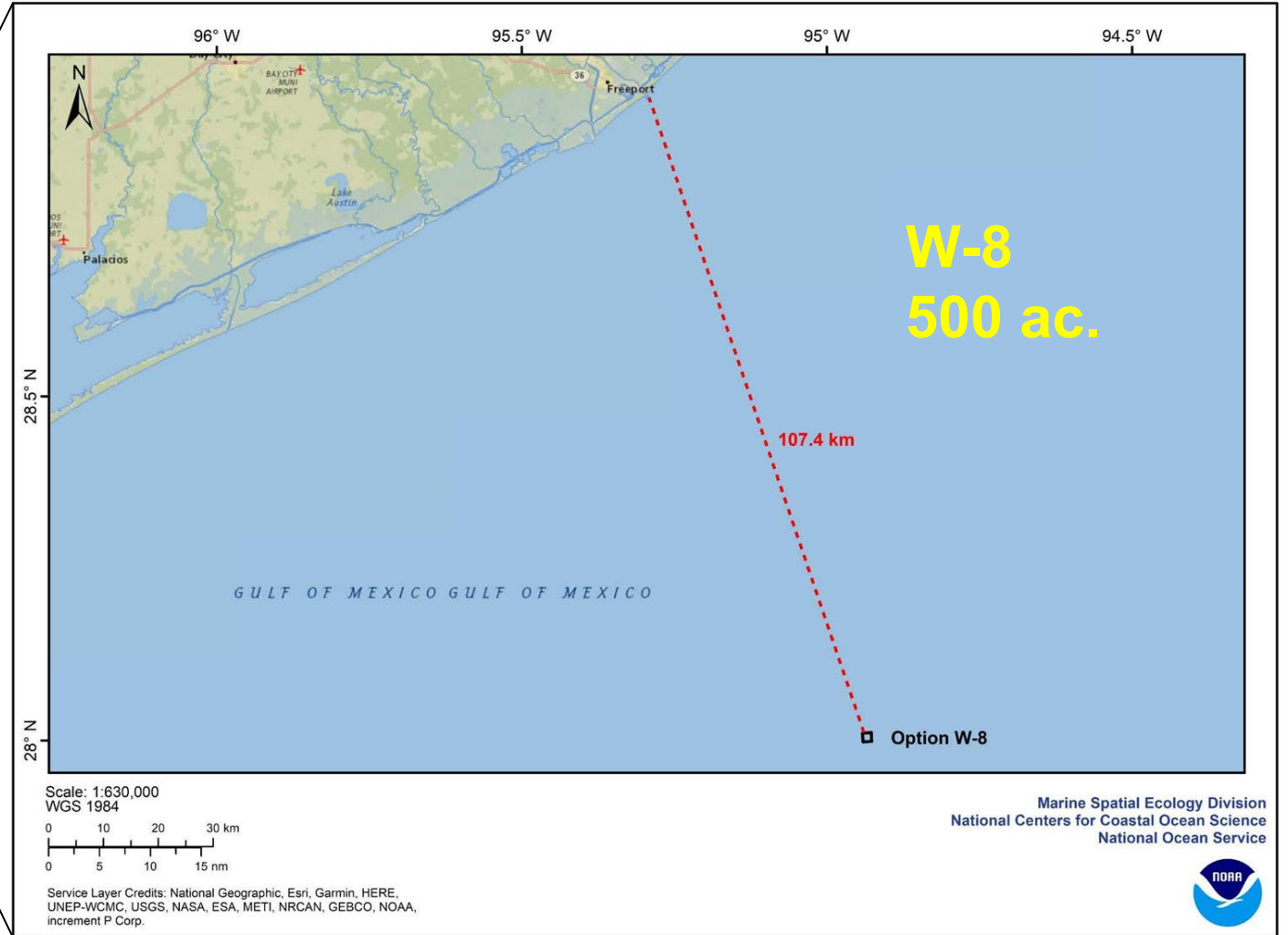
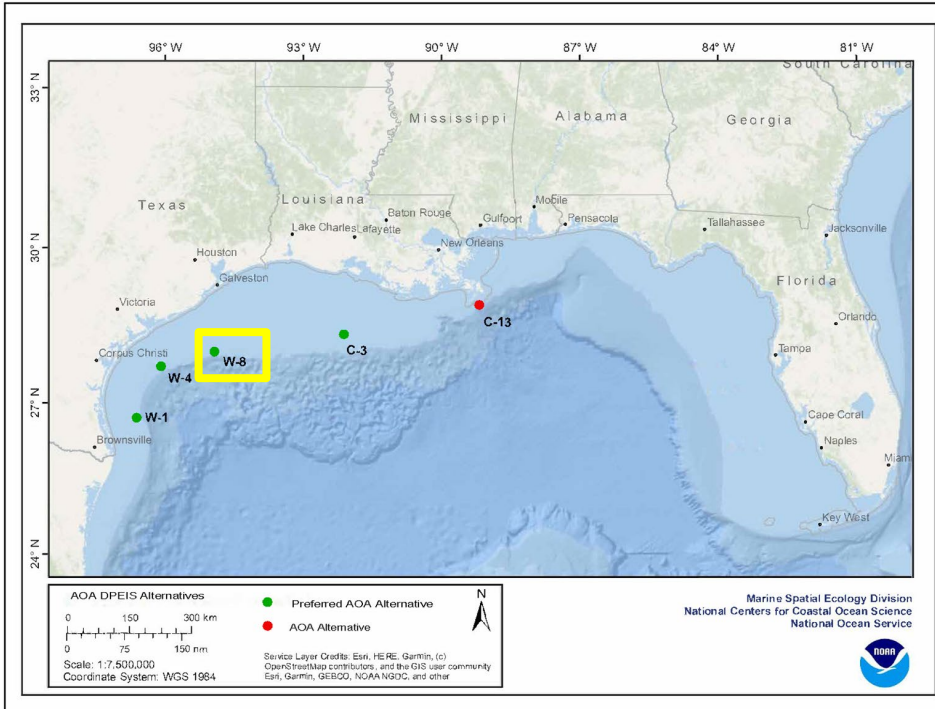
(Preferred) Alternative 2: W-1



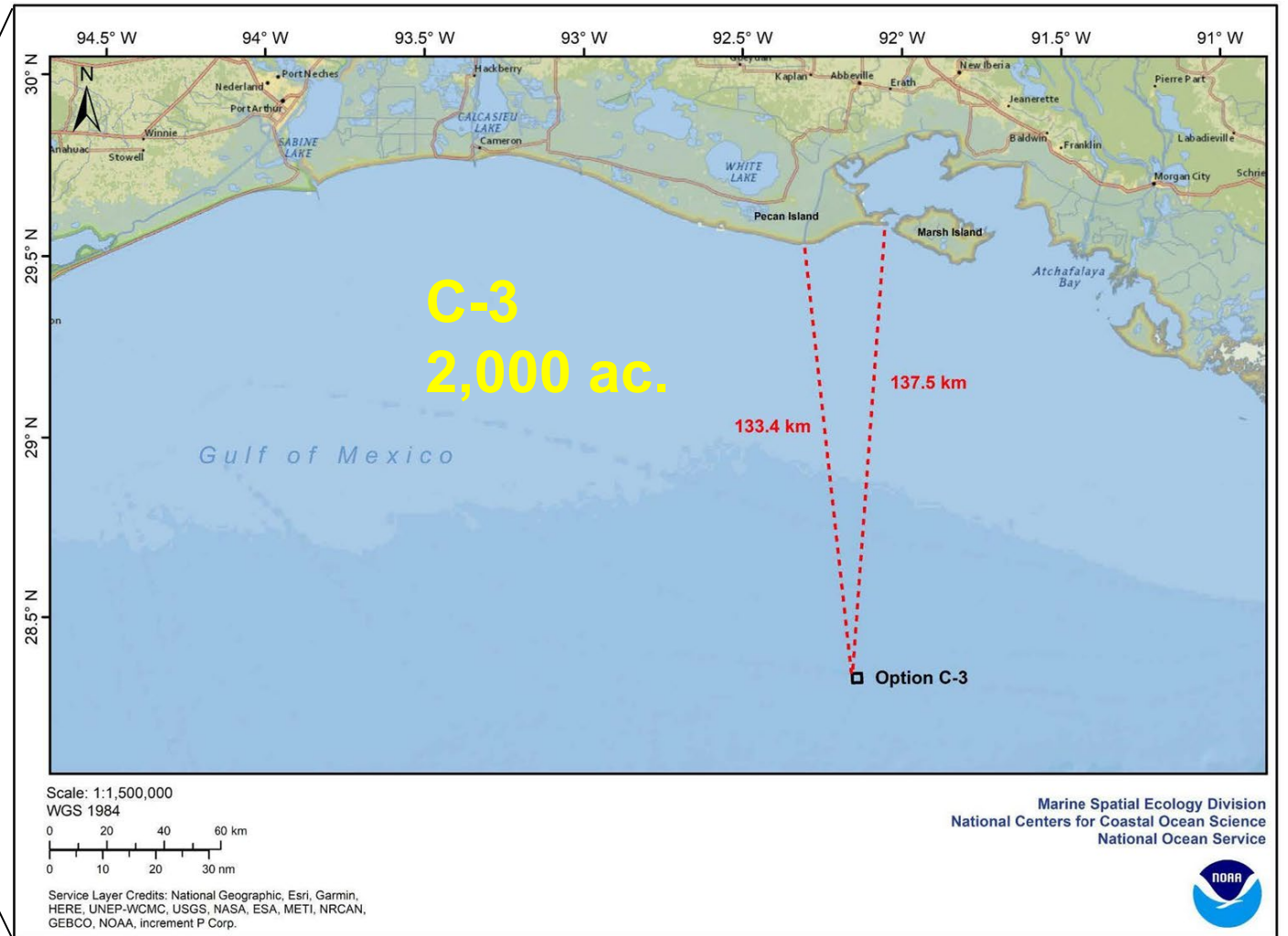
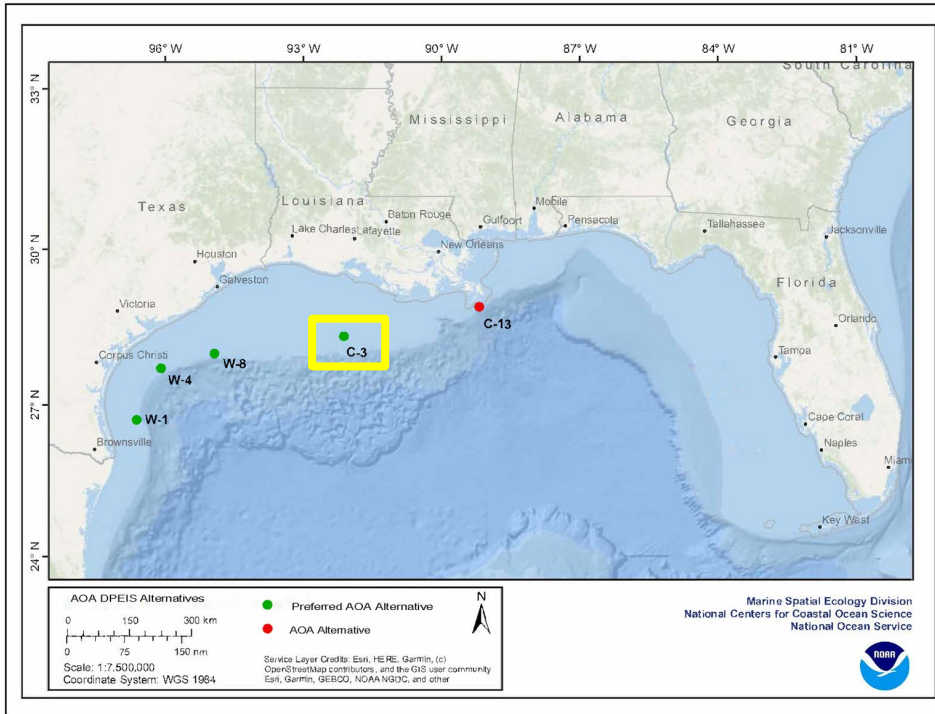
(Preferred) Alternative 3: W-4



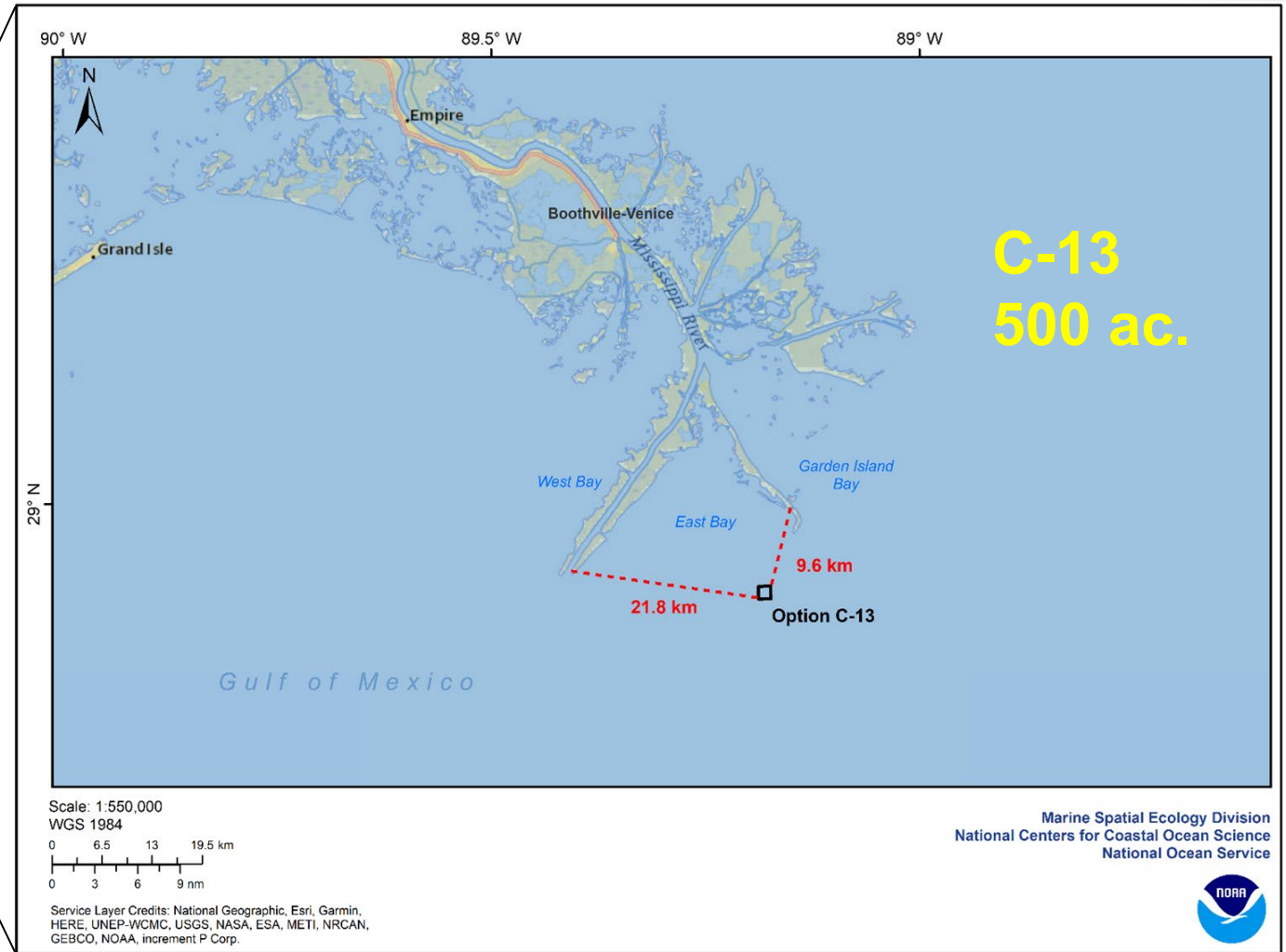
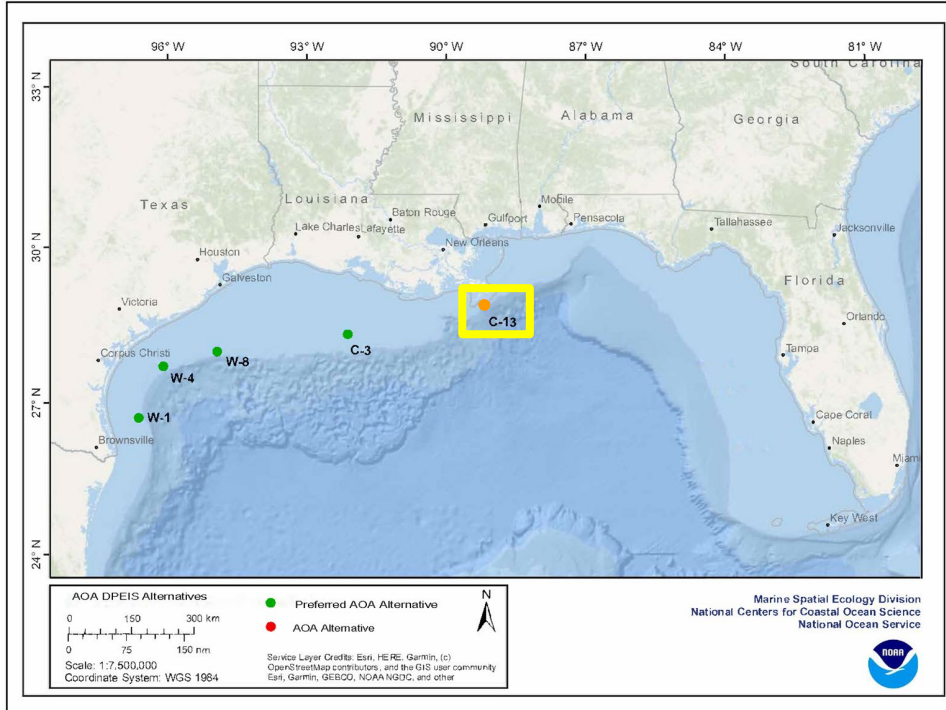
(Preferred) Alternative 4: W-8



(Preferred) Alternative 5: C-3



Alternative 6: C-13



Potential Environmental Effects Analyzed in DPEIS

- **Administrative Environment**

- **Physical Environment**

- Benthic Environment
- Federally Protected Habitat, Marine Protected Areas, and Special Resource Areas
- Water Quality
- Air Quality
- Aesthetic Quality

- **Biological Environment***

- Fish and Invertebrates
- ESA-listed Species
- Marine Mammals
- Seabirds

*Including: Water quality, waste and unconsumed feed, acoustic disturbance, light disturbance, wild species aggregation, escapement, introduction of non-native species, use of forage fish in fish meal and feed, disease and pathogen transmission, antibiotic use, marine debris, entanglement and entrapment and vessel strikes

- **Socioeconomic Environment**

- Commercial Fishing
- Seafood Markets and Regional Food Systems
- Ports and Working Waterfronts
- Recreational Fishing
- Tourism Economies
- Oil, Gas and Wind Energy Development
- Other Offshore Activities and Infrastructure
- Health and Public Safety
- Environmental Justice

- **Cultural and Historical Environment**

- Cultural, Historic, and Archaeological Resources

- **Potential Climate Change Impacts**

- Vulnerable Communities and Climate Change

- **Cumulative Effects**



Commercial and Recreational Fishing Consideration

- **Considered:**

- Commercial/Recreational Fishing
- Port and Working Waterfronts
- Tourism
- Potential effects of future aquaculture (FAD effects, escapement, disease, etc.)

- **AOA Alternatives avoid:**

- Observed and modeled hard bottom habitats
- Artificial reefs and fish havens
- Oil and gas infrastructure
- HAPCs

- **Cross referenced with AIS data**

- **Acknowledge: Time frame of fishery data**

- Precision site suitability analysis
- Permitting and environmental review of future aquaculture operations sited in an AOA

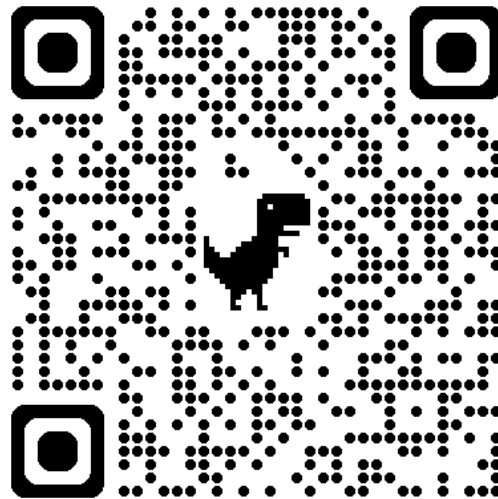
Fishing/Aquaculture Data Considered in Gulf Atlas (2021)
Commercial Shrimp Electronic Logbook Data (2004 - 2019)
Highly Migratory Species Pelagic Longline Gear Observer Data (1993 - 2019)
Menhaden Fishery Data (2000 - 2016)
Reef Fish Bandit Gear Fishing Data (2007 - 2019)
Reef Fish Longline Gear Fishing Data (2007 - 2019)
Southeast Region Headboat Survey Data (2014 - 2020)
Live Rock Aquaculture

	Shrimp ELB	HMS Observ. Data	Menhaden	RF Bandit	RF Longline	SE Headboat Survey
W-1	Low	None	None	Low	None	None
W-4	Low	None	None	Low	None	None
W-8	Low	None	None	None	Low	None
C-3	Low	None	None	Low	None	None
C-13	Moderate	None	None	Low	None	None

Virtual Public Meeting to Receive Comments on Draft PEIS to Identify AOA's in Federal Water of the Gulf of Mexico

- Tuesday, December 17, 2024, 6:30 p.m.-8:30 p.m. CST/7:30 p.m.-9:30 p.m. EST - COMPLETED
- Wednesday January 15, 2025, 3:30 p.m.-5:30 p.m. CST/4:30 p.m.-6:30 p.m. EST - COMPLETED
- Thursday, February 13, 2025, 6:30 p.m.-8:30 p.m. CST /7:30 p.m.-9:30 p.m. EST - Register Now!

Public comment
period opened:
November 22, 2024



Public comment
deadline is:
Thursday,
February 20, 2025

Virtual Public Meeting Registration
Thursday, February 13, 2025

How to provide comments: in writing

Public comment deadline is Thursday, February 20, 2025

Electronically:

- Go to www.regulations.gov
- Enter “**NOAA-NMFS-2024-0135**” in the search box
- Click on the “Comment” icon, complete the required fields, and enter or attach your comments
- Put “N/A” in personal information fields to be anonymous

By Mail:

Andrew Richard, Regional Aquaculture Coordinator
NOAA Fisheries, Southeast Regional Office
263 13th Ave. S., St. Petersburg, FL 33701
RE: Gulf AOA PEIS



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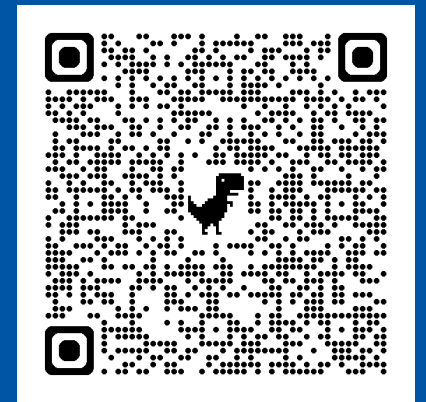
Thank you!

For questions about Aquaculture Opportunity Area identification in federal waters of the Gulf of Mexico:

Public comment
deadline is:
Thursday,
February 20,
2025

nmfs.ser.aquaculture@noaa.gov

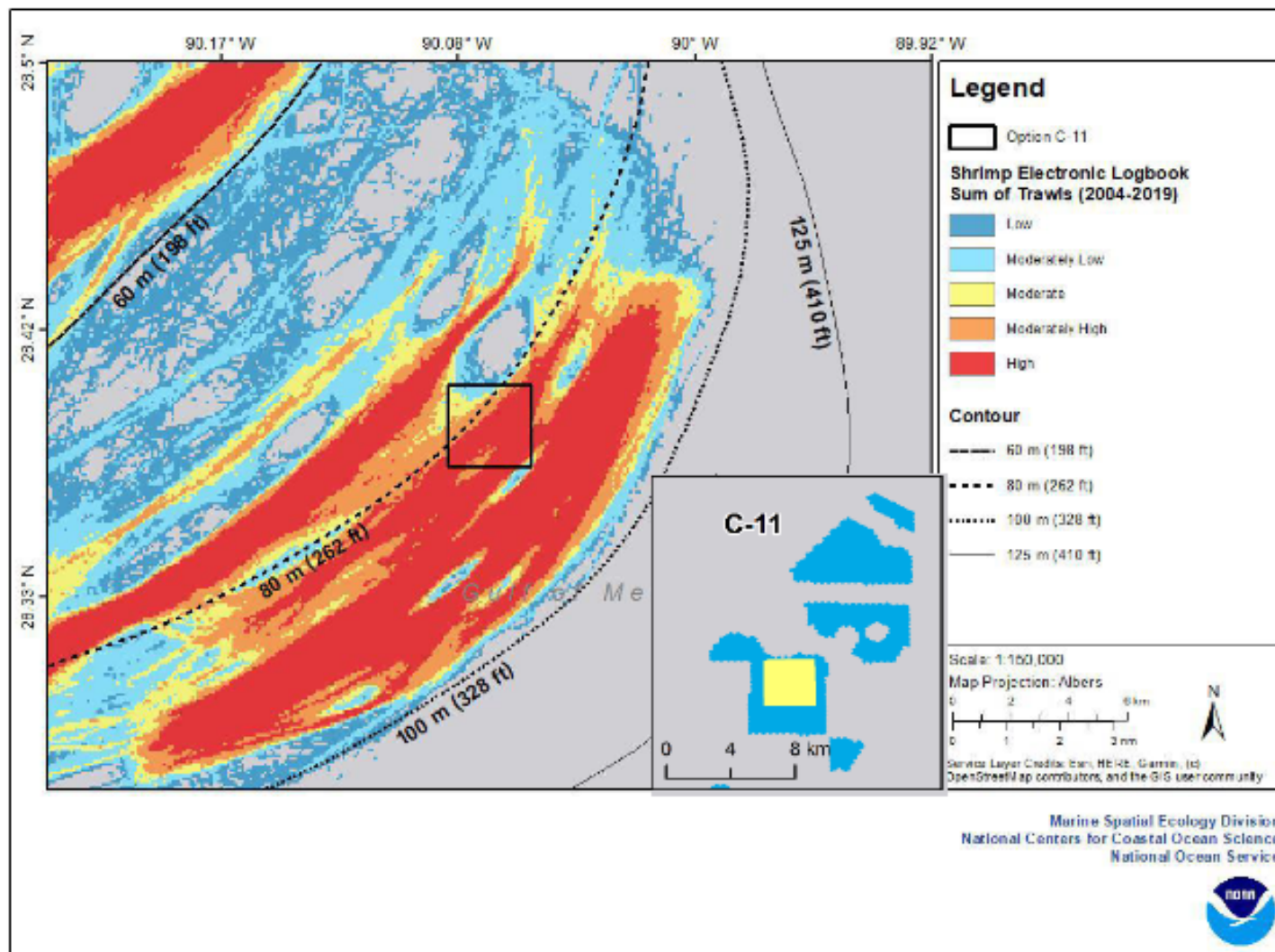
Andrew Richard
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Gulf of Mexico
Aquaculture Opportunity Area
website

Supplemental Slide

Map showing Shrimp ELB data and AOA Option (C-11) - 2000 acre site, 41 nm from shore



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Supplemental Slide

Map showing Shrimp ELB data and AOA Option (C-13) - 500 acre site, 5 nm from shore

