

NOAA Fisheries Aquaculture Opportunity Area Update



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Drivers

- **Human Health:** Federal nutrition guideline: eat 2x more seafood (~6m tons more per year)
- **Environmental Health:** Sustainable aquaculture is low impact protein growth
- **Global population increase:** Global demand for seafood is growing- need additional 40m tons in 20 years
- **Economic Opportunity:** Jobs, especially in coastal fishing communities
- **Seafood security:** >85% of seafood Americans eat is imported, 1/2 from aquaculture. Growing middle class in Asia and Latin America is competing with us for that seafood



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NOAA Aquaculture Program

NOAA Fisheries

[fisheries.noaa.gov](https://www.fisheries.noaa.gov)

- » policy/regulatory
- » aquaculture outreach
- » science for sound aquaculture development

Sea Grant

[seagrant.noaa.gov](https://www.seagrant.noaa.gov)

- » external grants
- » extension and education for coastal and Great Lakes aquaculture

National Centers for Coastal Ocean Science

[coastalscience.noaa.gov](https://www.coastalscience.noaa.gov)

- » spatial planning and siting
- » ecosystem services
- » environmental monitoring and modeling



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Aquaculture Aspects of the Executive Order

Many of the Executive Order actions allow federal agencies to build on our existing efforts to foster sustainable marine and freshwater aquaculture.

Implementation and responsibility for implementation is across the federal agencies involved with aquaculture including USACE, USDA/APHIS, and EPA



E.O. Section 6: Removing Barriers to Aquaculture Permitting.

- Possible Army Corps of Engineers nationwide permits:
 - Finfish, Seaweed, and multi-species
- NOAA is designated at the lead agency for NEPA when a project:
 - Requires environmental review or authorization by two or more agencies
 - Requires an environmental impact statement (EIS)
 - Is located outside of the waters of any State or Territory and within the exclusive economic zone of the United States
- All cooperating and participating agencies shall cooperate with the lead agency and all individual agency decisions shall be recorded in one ROD, unless the project sponsor requests that agencies issue separate NEPA documents.
- EIS development must be completed in 2 years



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E.O. Section 8: Improving Regulatory Transparency for Aquaculture

- Within 240 days prepare and place prominently on the appropriate NOAA webpage a single guidance document that:
 - describes the Federal regulatory requirements and relevant Federal and State agencies involved in aquaculture permitting and operations; and
 - identifies Federal grant programs applicable to aquaculture siting, research, development, and operations.
 - The Secretary of Commerce, acting through the Administrator of NOAA, shall update this guidance as appropriate, but not less than once every 18 months.



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E.O. Section 9: Updating National Aquaculture Development Plan

- Within 180 days, the Secretary of the Interior, the Secretary of Agriculture, and the Secretary of Commerce, in consultation with the Joint Subcommittee on Aquaculture shall assess whether to revise the National Aquaculture Development Plan, in order to strengthen our domestic aquaculture production and improve the efficiency and predictability of aquaculture permitting, including permitting for aquaculture projects located outside of the waters of any State or Territory and within the exclusive economic zone of the United States.



National Science and Technology Council Subcommittee on Aquaculture

- Co-Chaired by OSTP, NOAA, USDA
- Work Products:
 - Federal Regulatory Efficiency for Aquaculture Strategic Plan
 - National Strategic Plan for Aquaculture Research
 - Economic Development for Aquaculture Plan



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Regulatory Section 10: Promoting Aquatic Animal Health

- Within 30 days appropriate Federal and State officials shall consider whether to terminate the 2008 National Aquatic Animal Health Plan and to replace it with a new National Aquatic Animal Health Plan.
- Any new National Aquatic Animal Health Plan shall be completed, consistent with applicable law, within 180 days.
- If adopted, the Plan shall subsequently be updated, not less than once every 2 years, by the Secretary of Agriculture, in consultation with the Secretary of the Interior, the Secretary of Commerce, other appropriate Federal officials, and States, as appropriate.



E.O. Section 7: Aquaculture Opportunity Areas

- The Secretary of Commerce, in consultation with other appropriate Federal officials, appropriate Regional Fishery Management Councils, and in coordination with appropriate State and tribal governments, shall:
 - Within 1 year of date of E.O., identify at least two geographic areas containing locations suitable for commercial aquaculture.
 - Within 2 years of identifying each geographic area, complete a PEIS for each to assess the impact of siting aquaculture facilities there.
 - Each of following 4 years, identify two more geographic areas and complete PEIS within 2 years.



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Executive Order on Promoting American Seafood Competitiveness and Economic Growth

Year 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
I.D. 2 AOAs*	Complete PEIS* for each AOA					
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*AOAs = Aquaculture Opportunity Areas
PEIS = Programmatic Environmental Impact Statements



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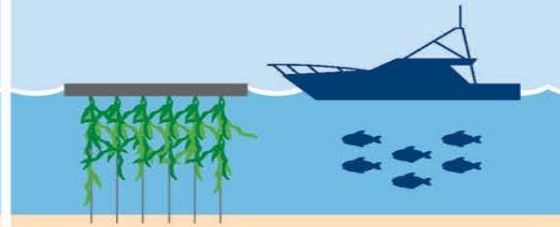
What is an Aquaculture Opportunity Area?

Aquaculture Opportunity Areas show high potential for commercial aquaculture. A science and community-based approach to identifying these areas helps minimize interference with other enterprises, account for current fishing patterns, and protect the ecosystem.

AOAs will expand economic opportunities in coastal and rural areas, and increase our nation's seafood security.

AOAs use the best available science to find appropriate spaces for sustainable aquaculture.

AOAs minimize interactions with other users, such as shipping, fishing, and the military.



Assessment and Use of AOAs

Stakeholder input is essential in the design and location of AOAs and NOAA expects these areas will be shaped through a public process that allows constituents to share their community and stewardship goals, as well as critical insights.

AOA size, exact location, and farm types will be determined through spatial analysis and public input to expand sustainable domestic seafood production while minimizing potential user conflicts. Farms will still need to go through the permitting process and environmental reviews.



Permitting Still Required for AOAs

- The federal and state permitting and authorization requirements are the same within AOAs as anywhere else.
 - Aquaculture operations proposed within an AOA would be required to comply with all applicable federal and state laws and regulations (e.g., Clean Water Act, Rivers and Harbors Act, Endangered Species Act [ESA], essential fish habitat under the Magnuson-Stevens Act, Marine Mammal Protection Act).
- Potential impacts to protected species and habitats will be considered at multiple points in the process.
- Identifying AOAs is an opportunity for proactive stewardship to use best available global science-based guidance on sustainable aquaculture management, and support the “triple bottom line” of environmental, economic, and social sustainability.



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How will we identify AOAAs?

We will use a combination of:

- NCCOS siting analysis results & mapping tools
- Stakeholder input (Councils, Commissions, public)
- Interagency coordination



AOA Timeline: Summer and Fall 2020

Aquaculture Opportunity Area Timeline



SUMMER 2020

- 1 Select regions for areas for evaluation. Convene NOAA AOA Implementation Teams.
- 2 Announce selected regions to regulatory partners, stakeholders, and general public.
- 3 National Center for Coastal Ocean Science (NCCOS) compiles siting data for the first two regions (ongoing).
- 4 Outreach to fishery management councils, marine fisheries commissions, stakeholders, and the public.

FALL 2020

- 1 Publish Request for Information (RFI) to gather public input.
- 2 Continue outreach and engagement to stakeholder groups.
- 3 Host five public listening sessions and review submitted RFI comments.
- 4 Using best available data, NCCOS conducts siting analysis to find areas that may support sustainable aquaculture development.



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AOA Timeline: Winter 2020-2021

WINTER 2020-2021

1

NCCOS drafts an Aquaculture Opportunity Atlas to present maps and share the results of their siting analysis.

2

Combine results of draft Atlas with RFI public input to select areas in the Gulf of Mexico and southern California to evaluate in more depth during the NEPA process.

3

Consider information collected through RFI, including industry interest, state agency input, and ecosystem factors to begin selection of regions to assess for possible future AOAs.

Continue outreach for current and future AOA efforts.

SPRING 2021

1

Publish Atlases as peer reviewed NOAA tech memos for each region.

2

Publish Notice of Intent (NOI) for each programmatic EIS in the Gulf of Mexico and Southern California, beginning in-depth evaluation of potential areas.

3

Continue to coordinate with other federal agencies, Fishery Management Councils, Marine Fisheries Commissions, states, and tribes.

4

Announce selection of next region(s) of focus for AOA identification using best available scientific data and stakeholder input.

First Two Aquaculture Opportunity Areas under Executive Order on Seafood

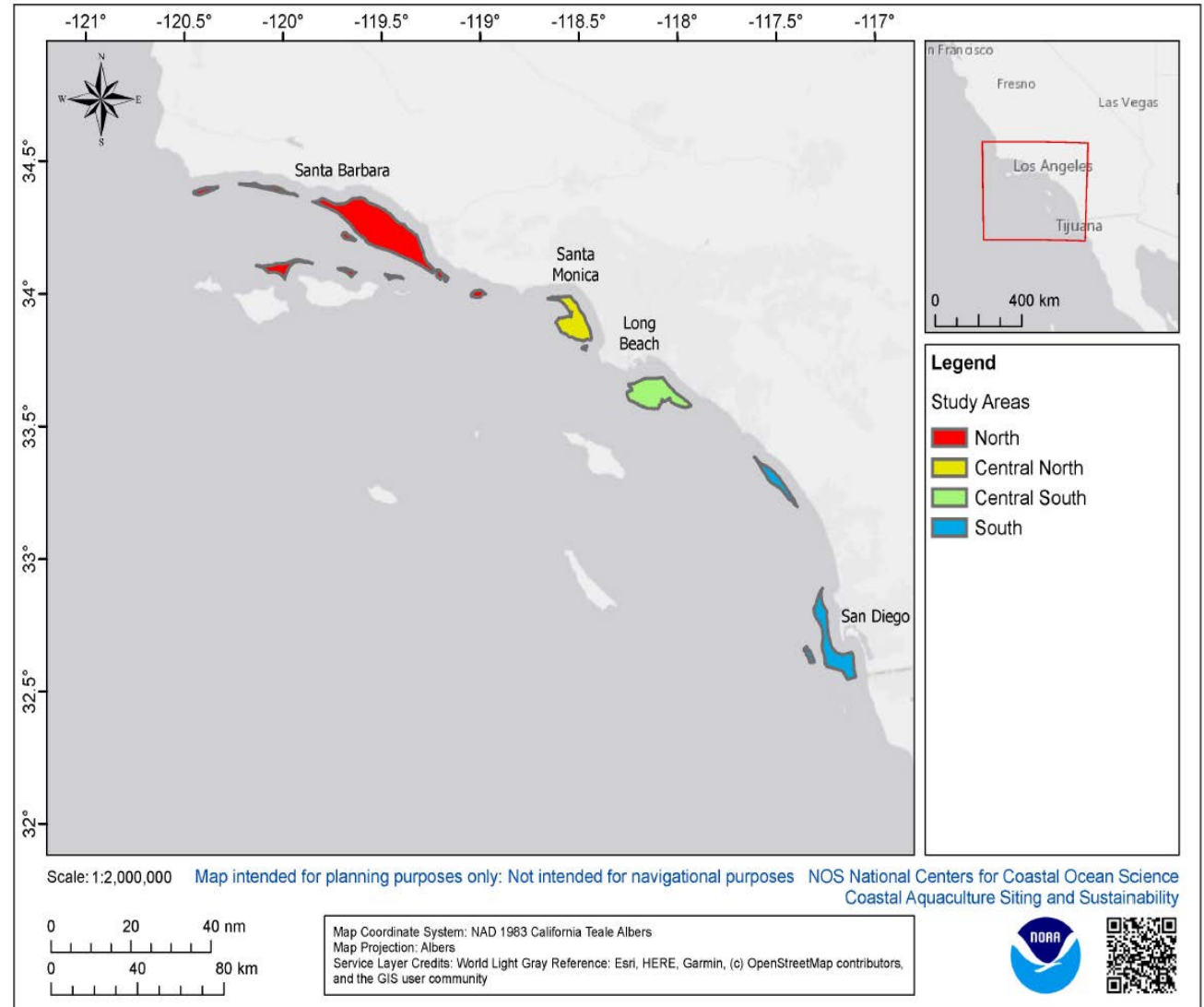
- Southern California and in the Gulf of Mexico have been selected for science-based evaluation and development of the first two AOAs
- These selections were based on the already available spatial analysis data and current industry interest in developing sustainable aquaculture operations in the region.
- For the past several years, the Gulf of Mexico and southern California have been areas of interest for domestic aquaculture producers with potential farmers pointing to the areas' access to ideal ocean conditions, access to markets, and established shorebased infrastructure.



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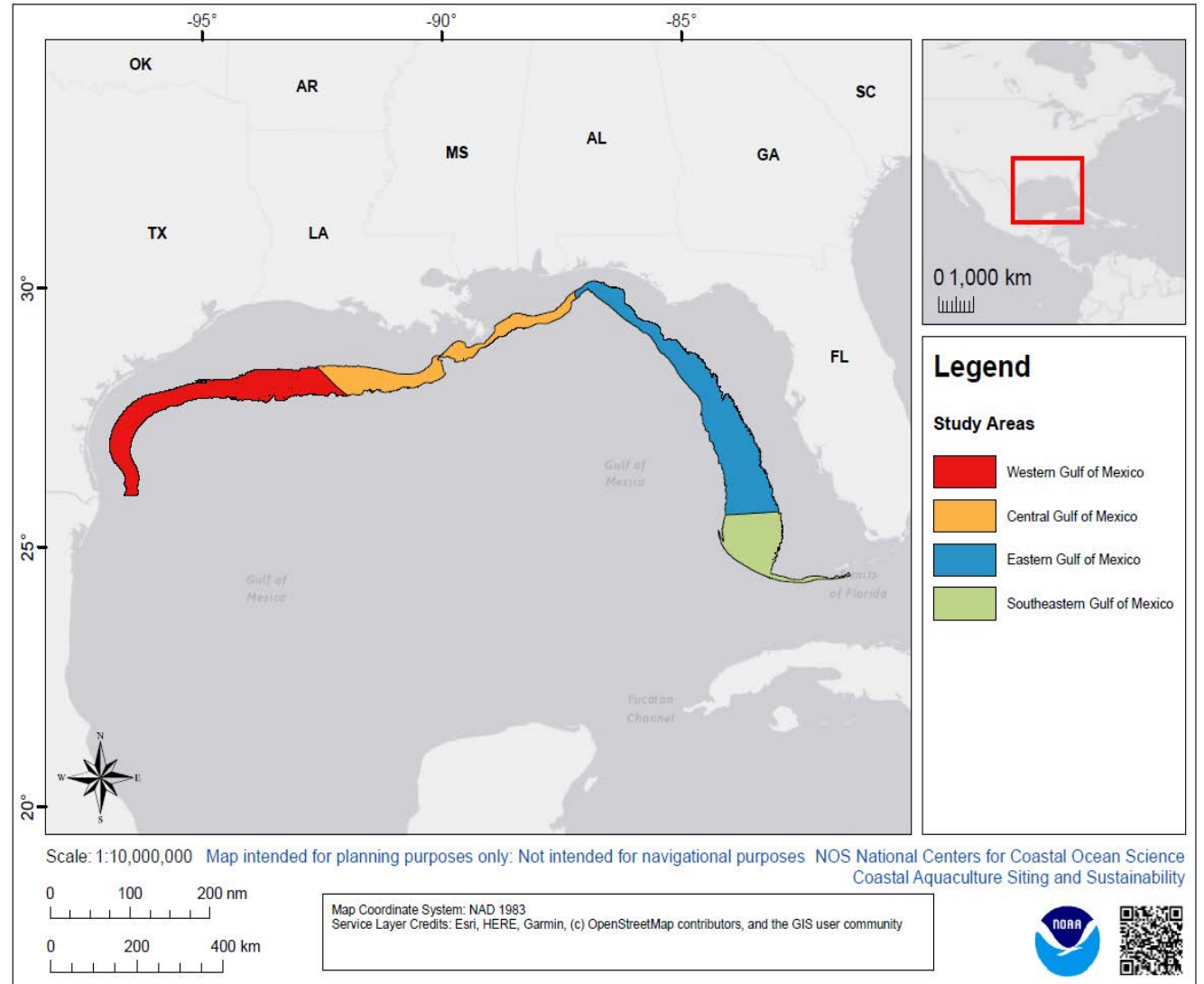
Southern California Study Areas

- Rules we used to define study areas:
- USA Federal Waters (EEZ)
- Depth = 10 - 150 m
- Distance from shore = 25 nm maximum



Gulf of Mexico Study Areas

- Rules we used to define study areas:
- USA Federal Waters (EEZ)
- Depth = 30 - 500 m
- Distance from shore = 50 nm maximum



NCCOS Data Source Summary

- Worked extensively with NOAA Fisheries and fishing industry representatives to identify relevant data
- Signed many non-disclosure agreements with federal and state agencies in order to obtain data
- Still working to obtain some data and refresh data throughout the spatial planning process (but will stop at deadline)
- Communicating regularly with the fishery management councils on the spatial planning process



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Comment Summary

- Comments closed December 22, 2020
- 73 unique comment submissions through regulations.gov; 24 from five public listening sessions
- A mix of Federal and State agencies, Councils, Makah Tribe, NGOs, individuals submitted comments
- Two write-in campaigns
 - Friends of the Earth - 27,368 signatures
 - Center for Food Safety - 6,519 signatures



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Comment Details

- Mix of support and opposition
- Opposition primarily focused on finfish aquaculture
- Specific areas within Southern CA and Gulf of Mexico to focus on or avoid
- Issues raised (e.g. water quality, marine mammals, impacts to fishing markets, escapes, disease) to be considered in the Programmatic Environmental Impact Statement (PEIS)



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Next Steps: AOA 1 & 2

- Southeast and West Coast regions will complete PEISs for first AOA
 - Notice of Intent (NOI) to prepare each PEIS expected spring 2021
- Areas considered in PEISs will be based on NCCOS Aquaculture Opportunity Atlas, coordination with Protected Resources, Sustainable Fisheries, and Habitat Conservation, public comment



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Comments on Future AOA locations

- Support for AOA for shellfish and seaweed mariculture in Alaska (state and federal waters)
- Support for AOA in Western Pacific
- Support for AOA in USVI and Puerto Rico (through public meeting)
- Primarily opposition for AOA in Northeast at this time
 - Potential conflicts with wind planning, lobster industry, right whales
 - One comment in support of AOA in Northeast
- Opposition for AOA in Oregon at this time
- Opposition for AOA in coastal Washington (Makah Tribe)



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Next Steps: Future AOA's

- Review comments
- Work with Regional Offices to define opportunities and challenges of AOA's in their region
- OAO consider opportunities and challenges, including budget limitations, and recommend options with high likelihood of beginning successful AOA process in FY21



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