

SCOPING REPORT

Pacific Ocean AquaFarms Environmental Impact Statement

Lead Agency:



National Oceanic and Atmospheric Administration

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MARCH 2021

Table of Contents

<u>SECTION</u>	<u>PAGE NO.</u>
ABBREVIATIONS AND ACRONYMS.....	III
1 INTRODUCTION.....	1
1.1 Project Applicant	1
1.2 Project Description.....	1
1.3 Purpose of Public Scoping Report	2
1.4 Scoping Report Organization.....	3
2 SUMMARY OF NEPA SCOPING PROCESS	5
2.1 Interagency Informational Meeting	5
2.2 Notice of Intent to Prepare an Environmental Impact Statement	5
2.3 Public Scoping Period (September 9, 2020, to October 26, 2020)	5
3 AGENCIES, ORGANIZATIONS, AND PERSONS PROVIDING SCOPING COMMENTS	7
4 SUMMARY OF SCOPING COMMENTS	13
4.1 Issues to be Addressed in the EIS	13
4.2 Issues Outside the Scope of the EIS	13
5 SUMMARY OF FUTURE STEPS IN THE NEPA PROCESS AND PERMITTING PROCESS.....	29
5.1 NEPA Process	29
5.2 USACE Permitting Process: Section 10	30
5.3 EPA Permitting Process: NPDES	31
6 ADDITIONAL RESOURCES	33
6.1 Project Website Materials	33
6.2 News Articles.....	33
7 LITERATURE CITED	35
APPENDICES	
A Notice of Intent	
B Scoping Meetings Materials	
C News Articles	

TABLES

1	Scoping Process Participants	7
2	Interagency Informational Meeting Attendees	11
3	Public Scoping Meetings Attendees	11
4	Interagency Scoping Meeting Comments	15
5	Federal Register Scoping Comments Received	16
6	Public Scoping Meetings Comments Received	26

Abbreviations and Acronyms

Abbreviation/Acronym	Definition
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
DoD	Department of Defense
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FR	<i>Federal Register</i>
MMPA	Marine Mammal Protection Act
MSA	Magnuson-Stevens Fishery Management and Conservation Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOS	National Ocean Service
NPDES	National Pollution Discharge Elimination System
POA	Pacific Ocean AquaFarms
ROD	Record of Decision
USACE	U.S. Army Corps of Engineers

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1 Introduction

1.1 Project Applicant

Pacific Ocean AquaFarms (POA), the applicant, proposes to construct, operate, and maintain an offshore marine finfish aquaculture operation composed of submersible net pens in federal waters (proposed project). The project requires permits to be issued by the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE). Issuance of those permits by federal agencies constitute major federal actions which require environmental review under the National Environmental Policy Act (NEPA) and its implementing regulations published by the President's Council on Environmental Quality (CEQ). This section of the report discusses the applicant's proposed project and the permitting process. In this document, the terms "proposed project" and "proposed action" are used interchangeably to represent POA's proposed aquaculture operation in federal waters.

1.2 Project Description

The applicant's proposed aquaculture operation site is located approximately 4 nautical miles (7.4 kilometers) off the coast of San Diego, California. To identify a site for the proposed project, POA relied on spatial analysis expertise from the National Oceanic and Atmospheric Administration (NOAA) National Ocean Service (NOS) to identify potential offshore locations that would be technically and commercially feasible while minimizing environmental effects. The technical and commercial parameters for the proposed project were established by the applicant to identify potential sites. Those parameters included the following, as detailed in the September 9, 2020, Notice of Intent (NOI) to prepare the Environmental Impact Statement (EIS):

- Location: Within 35 nautical miles (65 kilometers) of suitable port(s)
- Minimum and Maximum Depth to Seafloor: ≥ 100 feet (30 meters) and < 495 feet (150 meters)
- Suitability for Species: California yellowtail (*Seriola dorsalis*); other native or naturalized finfish species may also be cultivated that have the same requirements for temperature, space and other fixed parameters
- Gear Type: Submersible net pen

The NOS siting analysis included review of other engineering, development, and environmental constraints, including presence of submarine cables; oil and gas infrastructure or leases; squid and trawl fisheries; wastewater treatment discharge structures; shipping lanes and high vessel traffic areas; marine protected areas; deep sea corals and hard bottom habitat; and marine mammal migration routes. The siting analysis included a review by the U.S. Department of Defense (DoD) to ensure that potential sites avoided areas of DoD operations in federal waters, which are extensive offshore of Southern California.

Based on NOS data and analysis, POA identified two potential sites that best meet the above-listed technical, commercial, and environmental parameters: the applicant-proposed alternative located approximately 4 nautical miles (7.4 kilometers) west, offshore from Mission Beach, California; and a Long Beach alternative located approximately 4 nautical miles southwest, offshore from Huntington Beach, California.

NOS develops publicly available data to support NOAA's mission to facilitate the development of domestic commercial aquaculture consistent with sustaining and conserving the Nation's marine resources. NOAA has directives to preserve ocean sustainability and facilitate domestic aquaculture in the United States consistent with the National Aquaculture Act of 1980, the NOAA Marine Aquaculture Policy (NOAA 2011), and Presidential Executive Order 13921, Promoting American Seafood Competitiveness and Economic Growth (May 7, 2020). NOAA supports other federal agencies by providing technical expertise and supporting environmental review and assists project applicants with navigating the permitting of commercial-scale aquaculture proposals. NOAA may also be called upon to engage in consultations, permitting, and authorization for such projects to protect and conserve marine resources over which it has trust responsibilities under the Endangered Species Act (ESA), the Magnuson-Stevens Fishery Management and Conservation Act (MSA), and the Marine Mammal Protection Act (MMPA) (Executive Order 13921).

The applicant has determined that it needs to obtain permits under two federal statutes in order to proceed with the proposed project: the Clean Water Act and the Rivers and Harbors Act. EPA is responsible for reviewing applications, and if appropriate, issuing, National Pollution Discharge Elimination System (NPDES) permits under Section 402 of the Clean Water Act. USACE is responsible for reviewing applications for, and if appropriate, issuing, permits for obstruction to navigation under Section 10 of the Rivers and Harbors Act. As noted above, the proposals to issue the respective permits constitute major federal actions requiring environmental review under NEPA. To meet this obligation, EPA, USACE, and NOAA entered into a Memorandum of Understanding pursuant to which the agencies agreed that NOAA would serve as the lead agency and EPA and USACE would participate as cooperating agencies in the NEPA process. EPA and USACE, in cooperation with NOAA, have decided to prepare an EIS, in accordance with the regulations published by CEQ (40 Code of Federal Regulations [CFR] 1500–1408 [1978]).¹ On September 9, 2020, NOAA, as the lead agency for preparation of the EIS, published in the *Federal Register* (FR) an NOI to prepare the EIS (40 CFR 1508.22). In accordance with 40 CFR 1501.7, publication of the NOI initiated a period of public scoping. The scoping period extended for 48 days from publication of the NOI. As explained below, the purpose of public scoping is to solicit information from public agencies and interested members of the public (organizations and individuals) on important environmental issues and impacts, alternatives to the proposal, and other relevant environmental matters that should be included in and evaluated in the Draft EIS. The Draft EIS will be published and released for additional public review and comment, and a notice of the document's availability will be published in the FR.

1.3 Purpose of Public Scoping Report

This public scoping report documents the NEPA scoping process, the comments received in response to publication of the NOI in the FR for the proposed project, and the comments submitted during the public scoping meetings. This report serves as an information source to NOAA and the cooperating agencies (USACE and EPA). It will inform their determinations of the range of issues and alternatives to be addressed in the Draft EIS. This report will further inform decision-making by the permitting agencies of whether or not to issue the referenced permits for the proposed POA commercial-scale finfish

¹ The President's Council on Environmental Quality regulations have been revised with an effective date of September 14, 2020. The Notice of Intent to prepare the EIS was published prior to the effective date of the revised regulations. Therefore, the EIS is being prepared in accordance with the 1978 version of the regulations.

aquaculture facility. The comments received during the scoping period, guided by 40 CFR 1501.7, will be used to develop the Draft EIS, including identification of the following:

- Key issues to focus the analysis
- Reasonable alternatives for analysis
- Environmental issues and impacts of the proposed action and alternatives for evaluation
- Means to avoid, minimize, and mitigate environmental impacts

In addition, while the EIS is not being prepared jointly with state and local agencies, it is likely that such agencies will have discretionary approvals related to the project. Consequently, the EIS and NEPA processes are being conducted in a manner that would make the EIS available for use by local and state agencies. For example, the scoping activities conducted in accordance with NEPA would also generally meet Environmental Impact Report (EIR) requirements under the California Environmental Quality Act (CEQA) (see Sections 15082 and 15083 of the 2020 CEQA Guidelines).

1.4 Scoping Report Organization

This public scoping report is organized as follows:

- Section 1 (this section) provides a general introduction, purpose, and intent of the scoping report.
- Section 2 provides a summary of the NEPA scoping process.
- Section 3 provides a list of the federal, state, and local agencies; organizations; and individuals who commented during the scoping period.
- Section 4 provides an overall summary of the comments received and issues raised during the project's public scoping period.
- Section 5 provides a summary of future steps in the environmental review and permitting processes and indicates opportunities for public participation.
- Section 6 includes a list of literature cited in preparation of this scoping report.

The following appendices are included in this report for reference, consisting of public scoping notices, scoping meetings materials, scoping meetings transcripts, and important media pieces.

- A Notice of Intent (published in the FR on September 9, 2020)
- B Scoping Meetings Materials
 - B-1 Meeting Agenda
 - B-2 Scoping Meeting Presentation
- C News Articles

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2 Summary of NEPA Scoping Process

The NEPA scoping process provides government agencies, public and private organizations, and the general public the opportunity to identify environmental issues, impacts, and alternatives for consideration in the Draft EIS. Table 1 presents the agencies, organizations, and individuals that provided comments during the NEPA scoping process. Table 2 lists the local, state, and federal agencies that participated at the interagency informational meeting. Table 3 provides a list of names of participants who attended one or both of the public scoping meetings.

2.1 Interagency Informational Meeting

Prior to the publication of the NOI and public scoping period, NOAA hosted an interagency informational meeting on August 21, 2020 with 17 local, state, and federal agencies (see Table 2). Steve Leathery, the NOAA National Marine Fisheries Service (NMFS) National NEPA Coordinator, presented an overview of the project and preliminary alternatives. The meeting objectives were to provide agencies with an overview of the proposed project and NEPA process, collect input on the scope of the EIS analysis, and receive feedback on issues and topics of concern. Input provided by the agencies will inform the scope of the Draft EIS. A copy of the meeting agenda and presentation is provided in Appendix B. Overall, 20 comments were received during the interagency informational meeting; these comments are summarized in Table 4.

2.2 Notice of Intent to Prepare an Environmental Impact Statement

To comply with the CEQ regulations (40 CFR 1501.7) implementing NEPA, NOAA published the NOI to prepare an EIS in the FR for the proposed project on September 9, 2020. The NOI is the official regulatory notice indicating that a federal agency is commencing preparation of an EIS. Consistent with 40 CFR 1508.22, the NOI provided information about the proposed project and possible alternatives; described NOAA's proposed scoping process, including information on how to attend the two virtual public scoping meetings; and provided contact information to ask questions about the proposed action and the EIS. Details about the project and public notice for the NOI are posted on NOAA's website at <https://www.fisheries.noaa.gov/national/aquaculture/pacific-ocean-aquafarms-environmental-impact-statement>. The NOI is included as Appendix A herein.

2.3 Public Scoping Period (September 9, 2020, to October 26, 2020)

The NOI initiated the 48-day public scoping period by inviting public comment on the proposed project; its potential to affect the human environment; means for avoiding, minimizing, or mitigating those effects; the preliminary reasonable range of alternatives; and any additional reasonable alternatives that should be considered. NOAA provided the opportunity to comment on the NOI via <http://www.regulations.gov> and by hosting two virtual public scoping meetings.

In total, 219 comments were received during the public scoping period, of which five were duplicates. Therefore, a total of 214 unique comments were received. While duplicates, postcards, form letters, and petitions are counted on www.regulations.gov and their substance considered in the decision-making process, they are not included in the tally of comments received herein. In addition, it should be noted that although <http://www.regulations.gov> identifies that 551 comments were received, this number represents the total number of commenters associated with each comment letter received, not the actual number of comments received. Comments are summarized in Tables 5 and 6 of this report, and a full set of comments are included in the EIS project record.

Federal Register Comment: Individuals and organizations interested in providing feedback could submit a comment by visiting www.regulations.gov, entering the project identification code (NOAA-NMFS-2020-0117), and clicking on the “submit public comment” icon. The public was informed that comments submitted after the comment period closed may not be considered by NOAA and cooperating agencies; however, due to confusion regarding the time zone for the comment period closing time, late comments received through October 28, 2020, are included in the record for the project and this scoping report for consideration. Most of the comments received² are posted for public viewing on www.regulations.gov without change and can be viewed by clicking on the “read public comments” icon located beneath the submit comment button. Comments received via the FR are summarized in Table 5.

Public Scoping Meetings: NOAA hosted two virtual public scoping meetings (October 14 and October 16, 2020). The meetings were designed (i) as an opportunity for the agencies to provide information on the proposed project, the related permits, and the NEPA process, and (ii) for interested parties to provide written and oral comments for NOAA to consider and evaluate as it prepares the Draft EIS in cooperation with EPA and USACE. During the meeting presentation, NOAA identified the project team, presented the purpose of the public scoping meeting, and provided an overview of the project and the NEPA and permitting process. The slide deck for the presentation is provided in Appendix B. Following the presentation, the public was invited to ask the project team questions and/or provide comments. Comments received during these meetings are summarized in Table 6.

² Exceptions to comments on www.regulations.gov consist of those emailed directly to poa.eis@noaa.gov and comments redacted due to inappropriate text.

3 Agencies, Organizations, and Persons Providing Scoping Comments

Federal, state, and local agencies; private and public organizations; and the general public provided written and oral comments during the public scoping period. Table 1 presents the agencies, organizations, and individuals that provided comments during the NEPA scoping process. Anonymous commenters are not listed. Table 2 provides a list of names and agencies that attended the interagency informational meeting on August 21, 2020. Table 3 provides a list of names of participants who attended one or both of the virtual public scoping meetings (October 14 and 16, 2020). There were 71 meeting attendees at the October 14 virtual public scoping meeting and 67 meeting attendees at the October 16 virtual public scoping meeting. Attendees were not required to provide their names to attend the scoping meetings, and, as such, there were more attendees than the list of names indicates, as those who attended anonymously are not listed.

Table 1. Scoping Process Participants

Group	Commenter/Participant	Date Comment Received
Federal Agencies	U.S. Department of the Interior, National Park Service (Linda Walker)	October 27, 2020
Federal Agencies	U.S. Fish and Wildlife Service (Amanda Canepa)	September 29, 2020
Federal Agencies	Marine Mammal Commission (Peter Thomas)	October 25, 2020
State Agencies	California Coastal Commission (Cassidy Teufel)	October 25, 2020
State Agencies	California State Lands Commission (Jennifer Lucchesi)	October 25, 2020
State Agencies	California Ocean Protection Council	October 25, 2020
Local Agencies	California Department of Transportation District 11 (Kimberly Dodson)	October 25, 2020
Local Agencies	Carlsbad Chamber of Commerce	September 30, 2020
Local Agencies	City of San Diego	October 25, 2020
Local Agencies	San Diego Regional Chamber of Commerce	September 28, 2020
Local Agencies	San Diego Regional Water Quality Control Board	October 25, 2020
Organizations	American Fishing Tackle Mfg. Co.	October 15, 2020
Organizations	American Soybean Association and Soy Aquaculture Alliance	October 25, 2020
Organizations	American Sportfishing Association (Mike Leonard)	October 25, 2020
Organizations	California Aquaculture Association	September 30, 2020
Organizations	California Fisheries & Seafood Institute (Michael Lee)	October 26, 2020
Organizations	Center for Food Safety (Sylvia Wu)	October 25, 2020
Organizations	Climate Action Campaign (Matthew Vasilakis)	October 24, 2020
Organizations	Fortune International	September 22, 2020
Organizations	Friends of Animals (Adam Kreger)	October 25, 2020
Organizations	Friends of the Earth (Hallie Templeton)	October 25, 2020
Organizations	Highland PM, LLC	October 11, 2020
Organizations	National Aquaculture Association	October 26, 2020
Organizations	National Aquaculture Association (Jim Parsons)	October 22, 2020
Organizations	National Fisheries Institute	October 25, 2020
Organizations	Natural Resources Defense Council (Rebecca Loomis)	October 25, 2020
Organizations	Ocean Stewards Institute	October 25, 2020
Organizations	Responsible Offshore Development Alliance (Fiona Hogan)	October 25, 2020

Table 1. Scoping Process Participants

Group	Commenter/Participant	Date Comment Received
Organizations	San Diego Audubon Society (Lesley Handa)	October 25, 2020
Organizations	San Diego Coastkeeper (Patrick McDonough)	October 25, 2020
Organizations	San Diego Fishermen's Working Group (Peter Halmay)	October 24, 2020
Organizations	San Diego Port Tenants Association/ Working Waterfront Group	September 28, 2020
Organizations	San Diego Regional Economic Development Corporation (EDC)	October 7, 2020
Organizations	Santa Monica Seafood Company (Logan Kock)	October 22, 2020
Organizations	Sea Pact	October 25, 2020
Organizations	Sea Shepherd Legal (Evan Creutz)	October 27, 2020
Organizations	Seattle Fish Company	October 4, 2020
Organizations	Sierra Club (Annie Belt)	October 23, 2020
Organizations	Sportfishing Association of California	October 25, 2020
Organizations	U.S. Marine Mammal Conservation (Dennis Heinemann)	September 25, 2020
Individuals	Adrienne Heinzelman	October 25, 2020
Individuals	Alan Harris	October 25, 2020
Individuals	Alani Bayha	October 18, 2020
Individuals	Allen Davis	October 25, 2020
Individuals	Amalia Almada	October 16, 2020
Individuals	Amanda	October 14, 2020
Individuals	Amie Aguiar	October 18, 2020
Individuals	Amy Wright	October 24, 2020
Individuals	Angela Hawkins	October 24, 2020
Individuals	Ashley Goldman	October 18, 2020
Individuals	Barbara Lafaver	October 21, 2020
Individuals	Bayley Pierson	October 23, 2020
Individuals	Becky Mendoza	October 22, 2020
Individuals	Bedford Berkley	October 24, 2020
Individuals	Bowen Brown	October 22, 2020
Individuals	Bryce Wilson	October 25, 2020
Individuals	C Dunning	October 16, 2020
Individuals	Caitlin Kimmel	October 22, 2020
Individuals	Carlos Lopez	September 24, 2020
Individuals	Carrie Hadler	October 23, 2020
Individuals	Catherine Stiefel	October 15, 2020
Individuals	Cathy Ives	October 22, 2020
Individuals	Christian Green	October 23, 2020
Individuals	Christie Dunning	October 18, 2020
Individuals	Christopher Lish	October 23, 2020
Individuals	Cindy Lin	October 25, 2020
Individuals	Claire Adida	October 24, 2020
Individuals	Colleen FitzSimons	October 19, 2020
Individuals	Dan McKirnan	October 25, 2020
Individuals	Daniel Manross	October 23, 2020
Individuals	Dave Kush	October 25, 2020
Individuals	Devin Bartley	October 12, 2020

Table 1. Scoping Process Participants

Group	Commenter/Participant	Date Comment Received
Individuals	Dike Anyiwo	September 30, 2020
Individuals	Dylan Jones	October 21, 2020
Individuals	Eileen Maher	October 14, 2020
Individuals	Eric Lee	October 25, 2020
Individuals	Eric Newman	October 21, 2020
Individuals	Erin Gless	September 26, 2020
Individuals	Felicia Hernandez	October 18, 2020
Individuals	Hannah Anonymous	October 18, 2020
Individuals	Howard Grace	October 25, 2020
Individuals	Isabella Alessandrini	October 18, 2020
Individuals	James Royer	October 19, 2020
Individuals	James Scholl	October 23, 2020
Individuals	Jan Driscoll	September 24, 2020
Individuals	Janet Rhodes	October 21, 2020
Individuals	Jeff L.V.	October 14, 2020
Individuals	Jeffery Henley	October 23, 2020
Individuals	Jim Neri	October 20, 2020
Individuals	Joanne McBirney	October 21, 2020
Individuals	John Benya	October 25, 2020
Individuals	John Flachsenhar	October 24, 2020
Individuals	John Law	October 25, 2020
Individuals	John Schuller	October 21, 2020
Individuals	Karen Flammer	October 25, 2020
Individuals	Karen Royer	October 20, 2020
Individuals	Karena Endrizzi	October 18, 2020
Individuals	Kathie Kingett	October 22, 2020
Individuals	Keith Andrews	September 14, 2020
Individuals	Keith Hunter	October 18, 2020
Individuals	Kim Thompson	October 21, 2020
Individuals	Kirsten MacPhee	October 24, 2020
Individuals	Klaus Mendenhall	October 25, 2020
Individuals	Kristina Porteous	October 18, 2020
Individuals	Kyle Jones	October 21, 2020
Individuals	Laura Hunter	October 18, 2020
Individuals	Lauren V.	October 14, 2020
Individuals	Lee Lindler	October 20, 2020
Individuals	Louis Hock	October 18, 2020
Individuals	Louis Zimm	October 16, 2020
Individuals	Lyall Bellquist	October 14, 2020
Individuals	Marina Varano	October 19, 2020
Individuals	Mark Valen	October 22, 2020
Individuals	Marty Hinds	October 21, 2020
Individuals	Mary Beth Murrill	October 18, 2020
Individuals	Mary Temple	October 18, 2020
Individuals	Matt Everingham	October 16, 2020
Individuals	Matt O'Malley	October 14, 2020

Table 1. Scoping Process Participants

Group	Commenter/Participant	Date Comment Received
Individuals	Melissa Elder	October 18, 2020
Individuals	Merrill Flam	October 21, 2020
Individuals	Micah Mitrosky	October 19, 2020
Individuals	Michael Lee	October 21, 2020
Individuals	Mikala Carpenter	October 18, 2020
Individuals	Mike C.	October 14, 2020
Individuals	Mike Frager	October 20, 2020
Individuals	Mike Guerreiro	October 18, 2020
Individuals	Nancy Kramer	October 25, 2020
Individuals	Nicolette Zimmerman	October 25, 2020
Individuals	Padma Jagannathan	October 22, 2020
Individuals	Pamela Heatherington	October 25, 2020
Individuals	Pamela Maher	October 18, 2020
Individuals	Pamela Williams	October 23, 2020
Individuals	Patton Johnson	October 21, 2020
Individuals	Paul Fruchbom	September 23, 2020
Individuals	Paul Zajicek	October 16, 2020
Individuals	Paula Stober	October 18, 2020
Individuals	Rachele Lopez	October 25, 2020
Individuals	Randall McDonald	October 20, 2020
Individuals	Robin Jones	October 22, 2020
Individuals	Ronald Dribben	October 25, 2020
Individuals	Ronald Dribben	October 25, 2020
Individuals	Safia Anonymous	October 18, 2020
Individuals	Sam Mazzeo	October 18, 2020
Individuals	Sapideh Gilani	October 8, 2020
Individuals	Shannon Subers	October 18, 2020
Individuals	Steve L.	October 16, 2020
Individuals	Steve Reck	October 25, 2020
Individuals	Steve X.	October 14, 2020
Individuals	TJ Gascho	October 18, 2020
Individuals	Victoria Minnich	October 27, 2020
Individuals	Virginia Sternad	October 19, 2020
Individuals	Wes Armstrong	October 18, 2020
Individuals	Will Witman	October 25, 2020
Individuals	William Dent	October 23, 2020

Table 2. Interagency Informational Meeting Attendees

Agency	Attendees
California Air Resources Board	Elizabeth (Lizzy) Melgoza
California Coastal Commission	Cassidy Teufel
California Department of Fish and Wildlife	Mark Adkison, Randy Lovell, Sarah Briley, Eric Wilkins, Kirsten Ramey
California Ocean Protection Council	Paige Berube
California State Lands Commission	Lucinda Calvo, Jennifer Mattox
California State Water Resources Control Board	Ben Neill, David Barker Keara Tusso, Katherine Walsh
City of San Diego	John Stufflebean
Dudek	Matt Valerio, Mike Henry
National Oceanic and Atmospheric Administration	Steve Leathery, Phaedra Doukakis, Cristi Reid, James Morris, Bryant Chesney, Jonathan MacKay, Scott Farley
Port of Long Beach	Dylan Porter
Port of Los Angeles	Nicole Enciso, Zoe Irish
Port of San Diego	Jason Giffen, Paula Sylvia, Madelyn Roycroft, Lilly Tsukayama
South Coast Air Quality Management District	Alina Mullins
U.S. Army Corps of Engineers	Theresa Stevens
U.S. Coast Guard	Maria Wiener, LCDR Meredith Morrison, LCDR Ryan Mowbray
U.S. Environmental Protection Agency	Peter Kozelka, Stephanie Gordon
U.S. Fish and Wildlife Services	Carol Roberts
U.S. Navy	Michael Huber, Kathryn Ostapuk

Table 3. Public Scoping Meetings Attendees

Meetings Attendees	Date
Amalia Almada	October 16, 2020
Amanda	October 14, 2020
C Dunning	October 16, 2020
Eileen Maher	October 14, 2020
Jeff L.V.	October 14, 2020
Lauren V.	October 14, 2020
Louis Zimm	October 16, 2020
Lyall Bellquist	October 14, 2020
Matt Everingham	October 16, 2020
Matt O'Malley	October 14, 2020
Mike C. (Fisheries Rep.)	October 14, 2020
Paul Zajicek	October 16, 2020
Steve L.	October 16, 2020
Steve X.	October 14, 2020

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4 Summary of Scoping Comments

This section of the report summarizes and categorizes the written and oral comments submitted by the public and agencies during the NEPA scoping process. Table 4 presents comments that were made during the interagency informational meeting. Table 5 summarizes the comments received electronically (via email or at <http://www.regulations.gov/docket/NOAA-NMFS-2020-0117>). Table 6 provides summarized comments submitted during the virtual public scoping meetings. Tables 5 and 6 are organized according to the following major themes:

- Project description
- Project alternatives
- Human environment issues (e.g., socioeconomic resources, public health and safety, transportation)
- Natural environment issues (e.g., biological resources, physical oceanography, air quality)
- Mitigation and monitoring
- Operation and maintenance
- Cumulative projects and impacts
- NEPA process/EIS administrative and permitting issues

4.1 Issues to be Addressed in the EIS

The content of the Draft EIS will reflect input received during the NEPA scoping period. The categories of comment types in the tables below identify project and resource issues that will be evaluated in the Draft EIS, many of which were derived from comments made during the scoping period.

In addition, although normally outside the scope of an EIS under NEPA, NOAA is supplementing the process and scope for the EIS to generally satisfy the intent of CEQA, as stated in Section 1.3. Although the process for, and scope of, environmental review under CEQA is similar to that required under NEPA, they do differ in certain topics. Therefore, the EIS will address those additional topics required under CEQA (e.g., growth-inducing impacts).

4.2 Issues Outside the Scope of the EIS

CEQ recommends that federal agencies address all substantive comments made during the NEPA process (CEQ 1981; 40 CFR 1503.4). In a NEPA context, the term “substantive” generally has been interpreted to include a comment that addresses a specific aspect of the project, the NEPA process, or the NEPA document, rather than simply expressing a preference for or against the project (AASHTO 2016). Subsequently, comments received during the scoping period that only expressed support for or opposition to the project (i.e., a preference without reference to a specific environmental impact issue or concern) are considered and included in the project record but will not be used to guide the substantive analysis developed in the Draft EIS. In addition, comments that address out-of-scope topics are also included in the project record. Those topics not specific to the proposed project will not be analyzed in the EIS. Some topics, such as Aquaculture Opportunity Areas identified pursuant to Executive Order 13921, may be considered for analysis in the cumulative impact analysis of the Draft EIS, should they

be determined to be reasonably foreseeable future actions that overlap temporally and spatially with the proposed action. Information regarding Aquaculture Opportunity Areas is available at <https://www.fisheries.noaa.gov/insight/aquaculture-opportunity-areas>.

Table 4. Interagency Scoping Meeting Comments

Category	Agency	Comment
Project Description	San Diego Regional Water Quality Control Board	Are the fish pens netted on the top and bottom? (Response provided: Yes, these are completely enclosed, need a better 3D rendering of the net pen, would have copper coated netting)
Project Description	San Diego Regional Water Quality Control Board	What is the project location in relation to existing kelp beds? (Response provided: This area was selected to avoid kelp beds and hard substrate with deep corals)
Project Description	San Diego Regional Water Quality Control Board	How far away is the nearest kelp bed?
Project Description	San Diego Regional Water Quality Control Board	How does the size of this project compare to other existing aquafarms in the nation? (Response provided: There are no finfish aquaculture facilities in the US EEZ. The other aquaculture facilities in state waters are generally smaller. What is proposed here is on the scale of the operation in Hawaii state waters. Does not compare easily to the effort in Puget Sound as that is in multiple locations. For other countries like Norway you see much larger operations. This size operation is about the minimum size for economic feasibility)
EIR/EIS Administrative and Permitting Issues	California Department of Fish and Wildlife (CDFW)	Is Section 404 not necessary? (Response provided: No 404 discharge will occur, the waste discharge is under EPA authority)
EIR/EIS Administrative and Permitting Issues	Water Board	Is anchoring of nets considered fill that would require 404? (Response provided: No, the definition of “discharge of fill material” as described in the regulations doesn't match up with the project description of anchors, which are part of the structure. However, the USACE will need to have factual basis documented for not requiring Section 404 permitting)
EIR/EIS Administrative and Permitting Issues	EPA	EPA has the authority to issue the National Pollution Discharge Elimination System (NPDES) permit and will be fully engaged in the NEPA process. Since the business could grow over time, EPA will analyze discharges from the complete buildout. It will take about 6 to 12 months to complete draft permit once they start the process.
EIR/EIS Administrative and Permitting Issues	USACE	Is this an ODMS location for 403 discharge?
EIR/EIS Administrative and Permitting Issues	USACE	Is there going to be an Endangered Species Act (ESA) Incidental Take Permit (ITP) issued for this project? Would that be a permit action form? (Response provided: This will be more comprehensively addressed later. We think primary issues will be related to California sea lions and Marine Mammals Protection Act [MMPA] would be the issue. We will address take through ITP if analysis indicates it will be needed but haven't determined that at this time.)
EIR/EIS Administrative and Permitting Issues	EPA	California Coastal Commission does a consistency determination on the NPDES permit. EPA delays when asking for an application because there will be some water quality monitoring to determine where the plume would go, what would happen with copper, TSS, etc. That needs to go into the application.
EIR/EIS Administrative and Permitting Issues	EPA	NOAA values running a strong NEPA process so they have the needed input and can inform partners about the project and process.
Interagency Coordination	Water Board	Has applicant and agency done outreach to Non-Government Organizations (NGOs) that are opposed to the project? (Response provided: Applicant has done some outreach with interested parties that they are aware of. NOAA has done some outreach but not as much. We hear from NGOs interested in finfish aquaculture and they are aware that an NOI is coming out soon.)
Interagency Coordination	CDFW	How does the project relate to NOAA's effort to implement the Executive Order and Aquaculture Opportunity Areas in the Southern California Bight? (Response provided: Unclear whether the aquaculture opportunity proposal would be for finfish, shellfish, or other. Not directly related to the Executive Order [Executive Order 13921]. There has been extensive analysis to identify the location in San Diego, limited options there due to Navy activities.)
EIS Scoping Considerations	USACE	EIS template includes Public Interest Review factors and information they need to make their factual determinations. With regard to air quality and transportation there are two parts: marine and terrestrial. Same for air quality for marine vessels and onshore traffic to move the product around. Under General Conformity part of Clean Air Act, the U.S. Army Corps of Engineers requires an applicability analysis in the EIS for the air quality emissions.
EIS Scoping Considerations	South Coast AQMD	If the project is to be constructed and operated at the Port of Long Beach (POLB), would want to see a comparison to their CEQA thresholds. For NEPA process, would like to see a comparison to the de minimis thresholds for general conformity. Would be happy to provide contact info for the person who handles general conformity at the South Coast Air Quality Management District (SCAQMD). (Response provided: We want the document to meet the needs of CEQA agencies. Want to have the CA Coastal Commission well equipped to support their decision at the end of the process. Not a joint document, but rather a document that can be used by a CEQA agency to make their determination without preparing a separate CEQA document.)
EIS Scoping Considerations	USACE	Why is CEQA being mentioned? No state or local lead agency has been identified.
EIS Scoping Considerations	Coastal Commission	California Coastal Commission (CCC) has to do additional analysis for consistency with the Coastal Act. It will focus on guidance for that when providing formal scoping comments. Their thinking is consistent with the EPA, engaging more with the process when the document is available.
EIS Scoping Considerations	USFWS	Please ensure that the Environmental Contaminants analysis includes the addition of nutrients and consequences for harmful algal blooms, the addition of endocrine-disrupting compounds to the environment, and addition of any bioaccumulative compounds to the environment as a result of the proposed activities.

Table 4. Interagency Scoping Meeting Comments

Category	Agency	Comment
EIS Scoping Considerations	Coastal Commission	Project’s consistency with California’s Sustainable Oceans Act (SB 201), specifically, the issue areas/key analyses called out regarding open ocean finfish aquaculture (http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060SB201) and inclusion of a land-based project alternative along the lines of the Nordic project proposed in Humboldt Bay (https://lostcoastoutpost.com/2019/feb/9/norwegian-fish-farm-says-its-samoa-operations-will/).
EIS Scoping Considerations	CDFW	How do you conform to both NEPA and CEQA? Is there a difference in standards between local air districts and projects in federal waters? (Response provided: Different air district standards and depends on where the emissions are occurring. There is a published regulation that breaks down the attainment status in the air basin. If the emissions are over the standard in the published regulation, then a general conformity analysis has to be done by the federal agencies, including noticing to the EPA, CARB, air districts, etc. Doesn't think it will cross over those emission thresholds based on past experience.)

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
Project Description	Not Applicable	What type and size of ropes to be used on the project?
Project Description	Not Applicable	How will blood from the farmed fish be disposed of?
Project Description	Not Applicable	Please specify whether the 717-acre project area stated in the NOI is surface coverage or coverage on the sea floor. Is the footprint on the seafloor 1,000 acres due to anchoring/drift/etc.? Or is the proponent proposing to identify 1,000 acres and only use 717 acres?
Project Description	Not Applicable	The POA project will take the best of what we know today and then evolve as new technologies and protocols are developed, thereby ensuring that it constantly strives to set the highest standards for sustainability.
Project Description	Not Applicable	Where will storage and processing of fish food occur? Floating on ocean?
Project Description	Not Applicable	Other countries that were previously viewed as “leaders” in ocean aquaculture—namely Denmark and Canada—are now moving away from this harmful form of seafood production based on decades of environmental and socio-economic harm.
Project Description	Not Applicable	Description of materials chosen will result in some real maintenance “headaches” (galvanized steel and stainless steel are not good long-term selections). The deep-sea oil and exploratory rigs (as well as Scripps & Woods Hole) have had problems with both woven and laid synthetic fibers being damaged by marine bio-fouling. Suppliers of line and ground tackle to those in the “oil patch” may have products more suited to deep water or complex mooring systems.
Project Description	Not Applicable	Hubbs track record for failed fish farming should be taken into consideration when assessing environmental impacts and project viability of POA.
Project Description	Not Applicable	Will the nets be constructed to reduce the likelihood that marine mammals can damage them?
Project Description	Not Applicable	How will the facility’s design and materials ensure that marine mammals do not enter the cages?
Project Description	Not Applicable	Will POA be using wild caught or hatchery reared, juveniles or eggs?
Project Description	Not Applicable	What is the target fish size (larger fish create more waste)?
Project Description	Not Applicable	How will dead fish be disposed of?
Project Description	Not Applicable	What is the expected waste type and amounts of nutrients expected to be added/discharged to the area, type of feed, use of fertilizer and antibiotics?
Project Description	Not Applicable	Recommend working closely with the International Council for the Exploration of the Sea (ICES) or other European or Asian scientific organizations to learn as much as possible from existing aquaculture research.
Project Description	Not Applicable	Please identify land-base location where employees and visitors of Pacific Ocean Aquafarms would be parking vehicles to access ships/boats to access the aquafarms.
Project Description	Not Applicable	Please identify the number of parking spaces available for employees, staff, and visitors who are commuting to the Pacific Ocean Aquafarms.
Project Description	Not Applicable	Protein comes from a wide variety of non-animal sources that use significantly less resources, allowing more people to be fed with the same energy or financial expenditure.
Project Description	Not Applicable	Aquaculture is a rapidly evolving field with uncertainty as to the environmental effects of its newest developments. The EIS should take this degree of uncertainty into account throughout its analysis.
Project Description	Not Applicable	What is the acreage of the sea floor and sea surface that will be covered by the fish pens and supporting structures?
Project Description	Not Applicable	Farmed fish are necessary to meet demand for seafood.
Project Description	Not Applicable	Aquaculture is needed to supplement seafood demand in the decades to come.
Project Description	Not Applicable	Having a goal to increase fish consumption makes no sense. For example, NOAA pointed out that “many wild fisheries within the [United States’ exclusive economic zone] are at, or near, maximum sustainable yield.” Between fisheries providing as much as they can, and the “significant” environmental problems associated with land-based animal agriculture, NOAA should be looking for ways to address this problem that does not involve raising and slaughtering animals.

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
Project Description	Not Applicable	The ocean has the capacity to support sustainable expansion for food production while relieving pressures on land that can otherwise be used for wildlife and natural ecosystem functions. There is a growing body of research showing that responsibly farming the ocean can complement well-managed wild fisheries, freshwater aquaculture, and land-based agriculture to support a sustainable domestic food supply that provides more nutritious food in the changing climate with fewer environmental impacts.
Project Description	Not Applicable	Please evaluate in the EIS the amount and type of anchoring devices proposed for the facility and the impacts to seafloor habitats associated with the installation and presence of these devices.
Project Alternative Locations	Not Applicable	No-Action Alternative is the only alternative that NOAA has statutory authority to enact and is the only one that does not thrust an unknown industry into some of the most populated stretch of coastline in the US.
Project Alternative Locations	Not Applicable	Successful farming activities could occur on the lee side of many of the Channel Islands or Pyramid Cove at San Clemente Island.
Project Alternative Locations	Not Applicable	Please also consider in the EIS an onshore project alternative. Recirculating aquaculture system facilities meeting or greatly exceeding the proposed production capacity of the POA are being pursued elsewhere in California and the U.S. and therefore warrant consideration and evaluation as a potential option for addressing adverse environmental impacts that may result from the proposed project.
Project Alternative Locations	Not Applicable	Impacts of bathymetry on the project should be considered.
Project Alternative Locations	Not Applicable	Food waste is an increasingly common concern among the food sector and consumers. Johns Hopkins School of Public Health suggests that as much as 2.3 billion pounds of seafood is wasted along the current supply chain. Since the Pacific Ocean Aquafarms will be much closer to North America markets, it is highly likely to decrease waste along that reduced transportation chain.
Project Alternative Locations	Not Applicable	Fish farms are a critical part of the solution to feed the planet's population.
Project Alternative Locations	Not Applicable	This POA meets a need in our nation. The species that are proposed do not compete with wild tuna species in the area. The scope and plan operate under stringent U.S. regulatory standards. This project can provide a critically need proof of concept.
Project Alternative Locations	Not Applicable	Put the project 50 miles to the north in front of the military land facing the ocean.
Project Alternatives	Not Applicable	SoCal is one of the first Aquaculture Opportunity Areas. So they (Hubbs) have plenty of room to put the fish farm farther away from an area with lots of public use. They choose this location because it is one they have been trying to install a fish farm on for years. Where is the due diligence? One of the requirements of the fish farm is that it be within 35 miles of a port. That opens up everything north of La Jolla Canyon and an area with a lot less boat traffic.
Project Alternatives	Not Applicable	They (Hubbs) want to put the fish farm out in front of some of San Diego's most popular beaches: Mission Beach and Pacific Beach. They want to put a 1,000-acre fish farm next to the 4,000-acre Mission Bay aquatic park used by 1,000s of recreational boaters. They want to put a fish farm a little over a mile due south of the La Jolla MLPA [Marine Life Protected Area]. They want to anchor their fish farm on one of San Diego's most popular hard bottom fishing locations. How is this a good location for the public?
Project Alternatives	Not Applicable	San Diego, and this area in particular, is an ocean marine life mecca. The local marine life includes whales, dolphins, turtles, otters, and a whole host of marine birds. Indeed, La Jolla's Ecological Reserve preserves numerous species and underwater life. Why would NOAA allow a fish farm exactly in this location? How about placing this at the Long Beach Alternative where there is less marine life and where there won't be as much ecological damage?
Project Alternatives	Not Applicable	The figure provided to the public indicates the farm will be located 7.4 km offshore of Mission Bay. A displacement of one of our most critical fishing grounds, due to direct overlap between the proposed farm site and Mission Beach Reef ("270 Fathom Spot") is anticipated. Access to these fishing grounds is especially important to multiple sportfishing landings, numerous SAC vessels, and countless private recreational anglers in San Diego. POA is encouraged to consider an alternative location that does not negatively impact multiple existing fishing industries.
Project Alternatives	Not Applicable	Most of the open ocean finfish aquaculture worldwide to date has been conducted in waters within 4 miles from shore, which lends greater uncertainty to the degree of challenges faced by aquaculture facilities operating in high energy waters farther offshore.
Project Alternatives	Not Applicable	The alternatives lack the appropriate scale or only propose a different site but still involve 28 net pens.
Project Alternatives	Not Applicable	This particular proposal has some issues. The most major being the location(s) proposed are too close to well established traffic routes (commercial/recreational/migratory) and are generally exposed to long period storm/tsunami swells originating from the Southern Ocean/Chubasco/Chilean or Western Pacific Rim. A very interesting physical issue at the Los Angeles/Long Beach site is that it spans the mouths of two sea canyons which have been identified as being "lenses" that focus long period waves causing significant damage to the Los Angeles/Long Beach Harbor breakwater.
Project Alternatives	Not Applicable	Some of the reasoning behind the location selection process appears to have been to avoid dealing simultaneously with both the United States and the State of California governments.
Project Alternatives	Not Applicable	The location(s) are not good. There will be significant physical damage issues to both the pens and passing vessels. Predatory species (and Regulatory Agencies) will win out in the long run.
Project Alternatives	Not Applicable	Proximity to the South La Jolla Marine Protected Area (MPA), where Elk Horn Kelp thrives, should be reason enough to choose another location for this project.
Project Alternatives	Not Applicable	Among the matters that must be identified and analyzed in the EIS are whether the project location is an appropriate area for offshore aquaculture activities of the proposed size and scope and whether the location would avoid adverse impacts, minimize any unavoidable impacts on user groups, public trust values, and the marine environment.

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
Project Alternatives	Not Applicable	Alternatives that must be explored include a “no action” alternative; a “wild/native fisheries management” alternative that instead accelerates the pace of native fisheries recovery and sustainable management that encompasses new projects and policies designed to support the expanded sustainable commercial fishing practices and to protect and restore wild native fisheries populations; integrative species management approaches (aimed at reducing pollutant discharges); and an alternative such as onshore aquaculture that allows for more controlled pollution mechanisms and that would result in far fewer environmental impacts.
Project Alternatives	Not Applicable	Build one pen with the best designed mooring system and place it in a location that has the same bottom conditions and tropical storm conditions before committing to the location of this project. If this is successful then test a grid of pens both parallel and perpendicular to the wind direction to ensure the system shouldn't fail.
Project Alternatives	Not Applicable	The alternative project sites are also located within Essential Fish Habitat for various federally managed fish species within the Pacific Coast Groundfish Fishery Management Plan under the Magnuson-Stevens Fishery Conservation and Management Act.
Project Alternatives	Not Applicable	Moving the development farther offshore into deeper water (avoiding overlap with Department of Defense operations, while maintaining reasonable proximity to aquafarm land operations at the Port of San Diego) would significantly minimize impact on the local environment and the City of San Diego's Ocean Management Program.
Project Alternatives	Not Applicable	The current location of the POA development will have a negative impact on the City of San Diego's ability to effectively monitor wastewater dispersion from the Point Loma Ocean Outfall, a monitoring program that has been in operation since the 1960s.
Project Alternatives	Not Applicable	The NOI entirely fails to mention other sites in federal waters that may be suitable for the same project, as well as other finfish or non-finish species that may be considered as alternatives should the project go forward. Other alternatives that should be considered include limitations on seasonality of production to reduce impacts to local economy, and inclusion of labeling of information to provide market transparency to consumers.
Project Alternatives	Not Applicable	Both sites mentioned may result in whole new sewage/storm water treatment systems (law of unintended consequences?).
Project Alternatives	Not Applicable	Block 860 has the highest production of spiny lobsters in the state, with fishermen trapping this area more than any other block. The anchor field of the fish pens will interfere with these traps, causing them to become tangled in the mooring lines or lost during larger swells. This will create ghost gear and in even greater chance for mammal entanglement.
Project Alternatives	Not Applicable	Blocks 860 and 861 are heavily fished for sheephead, sea urchins, and shelf rockfish. The project location would interfere with these existing uses.
Project Alternatives	Not Applicable	Unlike a scenario where a public project goes forward for the common good, this project is a reverse eminent domain situation. A long-established public community that has managed to coexist in harmony is being broken up by the desires of a private enterprise. Mission Bay and the surrounding beach communities have commercial fishermen, recreational fishermen, whale watchers, student and scientific researchers, kayakers, surfers, swimmers, beachgoers, and tourists, all of whom share the common joy of our clean water and stunning views. Telling us that there is anything good about putting a factory fish farm in the middle of our neighborhood is an insult.
Project Alternatives	Not Applicable	What are the impacts to the town of Bird Rock in Southern California?
Human Environment	Recreation/ Property Rights/ Access	The project increases the restricted areas for commercial fishermen, harming their local family fishing operations.
Human Environment	Recreation/ Property Rights/ Access	The project will cause interference with local fishing operations.
Human Environment	Recreation/ Property Rights/ Access	Make sure inter alia zoning issues are properly addressed.
Human Environment	Recreation/ Property Rights/ Access	How will 1,000 acres of public ocean be transferred to a private company for profit-making purposes? Is it via sale, license, lease, or what?
Human Environment	Recreation/ Property Rights/ Access	What are the potential damaging impacts from the project that would decrease recreational uses?
Human Environment	Recreation/ Property Rights/ Access	What would be the navigation and use restrictions around the aquafarm?
Human Environment	Recreation/ Property Rights/ Access	San Diego is a boat culture. How will this project impact boat culture and the economy? Will boaters have to go around the nets and/or will they need to avoid the area altogether? What impact does this have on the desirability of living in San Diego, owning a boat, and fuel prices/availability? These things must be considered.
Human Environment	Recreation/ Property Rights/ Access	How will sport fishing be impacted by the project? Yellowtail is a premier game fish in Southern California. How will yellowtail be impacted? Will local fishermen be required to travel farther? Will more fuel be required? Will fish patterns change killing the industry? Will wild fish be impacted?
Human Environment	Recreation/ Property Rights/ Access	EIS should fully evaluate the impacts of the project on all public trust resources, including fisheries.
Human Environment	Recreation/ Property Rights/ Access	
Human Environment	Historic Preservation (lands of importance, cultural, etc.)	NOAA is encouraged to engage appropriate tribal governments as early as possible and ensure an inclusive and robust consultation process under Section 106 of the National Historic Preservation Act. NOAA should foster a collaborative consultation that incorporates meaningful tribal input in the areas of incorporating Indigenous Knowledge/TEK, avoidance of culturally significant offshore locations, creative mitigation, and opportunities for Native employment and economic sovereignty.
Human Environment	Scenic Integrity/ Visual Impacts	Will there be lighting 24/7 and will it be visible from shore? (Response provided: Yes, there will be vessel lighting; more information will be in the EIS.)
Human Environment	Scenic Integrity/ Visual Impacts	Fish farm debris could wash onto beaches.
Human Environment	Scenic Integrity/ Visual Impacts	Clear vistas from the coastline would be negatively impacted (Mission Beach).
Human Environment	Scenic Integrity/ Visual Impacts	Pleasure boating would be negatively impacted.

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
Human Environment	Scenic Integrity/ Visual Impacts	Negatively impact viewshed at Cabrillo National Monument.
Human Environment	Health/ Safety Concerns	What are the impacts from developing a fish farm located near oil rigs (poses environmental and consumer risks)?
Human Environment	Health/ Safety Concerns	Risk to consumers from eating fish that have been raised/treated with antibiotics, drugs, and other chemicals.
Human Environment	Health/ Safety Concerns	Decreases in local wild fish populations would negatively impact the local commercial fishing industry.
Human Environment	Health/ Safety Concerns	Antibiotics and other drugs given to the farmed fish to prevent disease are passed into the environment and can spread to the consumer (leading to antibiotic resistance in humans).
Environmental Justice	Economics	This project will help my business and the business of other recreational fishing companies because currently we do not have enough fish in the sea to satisfy the full needs of both the commercial and recreational fishing companies. Farm raise fish will leave more wild fish in the ocean for the public to catch on their own. Aquaculture is needed in the US in order for our country to catch up with the rest of the world. This project also provides an opportunity to do aquaculture responsibly right here in California and to teach others how to do it properly.
Environmental Justice	Economics	This sushi-grade product will not compete with local commercial fish harvests but will help reduce the fish food imports we currently consume.
Environmental Justice	Economics	Reduces reliance on import of seafood from other countries.
Environmental Justice	Economics	Would increase local food security and invigorate working waterfronts.
Environmental Justice	Economics	Who will financially benefit from the fish farm?
Environmental Justice	Economics	The project will privatize and industrialize a huge patch of natural sea (from surface to floor) that will be taken from robust local commercial fisheries and sportfishing operations.
Environmental Justice	Economics	Project will cause damage to the sustainable seafood production business sector.
Environmental Justice	Economics	Need to analyze the impacts to the local tourism industry and sportfishing industry.
Environmental Justice	Economics	Yellowtail is a fish only served at high-end restaurants and foodservice operations, at prices out of reach for most consumers.
Environmental Justice	Economics	Project could increase marine debris that washes onto beaches, straining beach cleaning teams even further.
Environmental Justice	Economics	Property values would be negatively impacted.
Environmental Justice	Economics	Describe the intended socioeconomic analysis. (Response provided: It will be robust and consider commercial/recreational fishing and other ocean users.)
Environmental Justice	Economics	Promise of economic development and job creation.
Environmental Justice	Economics	Promise of invigorating working waterfronts and creating synergies with commercial fishing.
Environmental Justice	Economics	Promise of catalyzing a new domestic industry.
Environmental Justice	Economics	Promise of enhancing domestic food security.
Environmental Justice	Economics	There is huge potential for economic development and job creation across a multitude of demographics. Moreover, projects like this would provide economic and environmental sustainability, including domestic food security.
Environmental Justice	Economics	The development of a marine finfish aquaculture industry will be vital to meet the growing demand for seafood in California and throughout the United States. The development of marine finfish aquaculture in California will provide economic opportunities that are currently being lost to other coastal states and countries.
Environmental Justice	Economics	If not feeding fish meal and using “plant based” feed rations, this will lead to more land-based pollution since conventional farm production of soybeans and corn is one of the most significant polluters in the use of synthetic nitrogen fertilizer, glyphosate, and atrazine. If poultry meal is used in the ration it only compounds the inefficiency of conversion by feeding chickens grains to then feed to fish. In terms of POA’s claims to help meet the needs of a burgeoning human population, yellowtail is generally served in high-end restaurants and foodservice operations. The price is out of reach of most consumers. There are much lower cost alternatives and efficient sources, including wild anchovies and sardines in their natural form. The planned production at 2,500 metric tons is a mere fraction of global aquaculture production 80 million metric tons (0.00003125%) and will not have a significant impact on meeting our growing populations needs.
Environmental Justice	Economics	The POA proposal will help re-energize the local coastal economy; create new coastal dependent jobs; work with existing coastal stakeholders to enhance new fishery related business; and invigorate working waterfronts and working with commercial fishermen to assist in producing more fish for seafood processors, seafood restaurants, retail markets, and consumers. Creating new blue jobs, promoting new technology, and enhancing food security are also important aspects of this venture.
Environmental Justice	Economics	This project is a thoughtful step in reducing the amount of imported fish, preserving the ocean’s ecosystem, and creating jobs in the San Diego Region. The POA is designed to assess and demonstrate both economic and environmental sustainability and will produce up to \$30 million plus in annual sales, and it will create and/or support 300+ permanent, good-paying jobs. The aquaculture project will help revitalize and work in harmony with commercial fishing operations, increasing the safe, secure, and domestic supply of healthy seafood.
Environmental Justice	Economics	Domestic wild capture fisheries cannot expand to meet the ever-increasing demand for seafood, given harvest restrictions that are designed to ensure sustainable wild fish populations. Domestic aquaculture is needed to meet demand without relying on heavily on foreign supplies.

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
Environmental Justice	Economics	How will the project impact the San Diego economy? Will it harm local fishing operations? Will tourism be impacted because people will go to fish and boat elsewhere?
Environmental Justice	Economics	The NOI repeats the statistic that 85% of the seafood Americans eat “comes from abroad.” What that simple phrase does not say, however, is that 35-38% of all seafood consumed by Americans was caught domestically, shipped abroad for processing, and sent back to the United States for consumption. Nor does this sentence reveal that the United States is the single largest producer of seafood among the developed nations. This sentence also obfuscates the fact that the United States is the world’s fourth largest exporter of seafood.
Environmental Justice	Economics	With this project, we have the opportunity to grow that seafood in U.S. waters for U.S. consumers, thus creating coastal jobs and increasing domestic demand for U.S. soybeans as a feed source.
Environmental Justice	Economics	Working closely with the regional fishery management council, NOAA should analyze the impacts on fishing communities that could result from marine habitat loss or degradation and other impacts described herein, including fish escapes and disease spread.
Environmental Justice	Economics	The promise of jobs, mostly low paying fish processing jobs that will be filled by cross border guest workers, does not sit well with those of us who may lose our jobs because of this project. Every user group has to sacrifice while the only benefits go to the developers.
Environmental Justice	Economics	NOAA should include an analysis of both the economic and cultural importance of local fisheries and marine life, an analysis of potential impacts to commercial fisheries, potential impacts to recreational fishing, potential harm to fishery dependent communities, and an analysis of the market impacts of this product's introduction.
Environmental Justice	Economics	Discuss impacts on consumer choice from the ability to identify and choose from farmed products vs. wild fish in the marketplace.
Environmental Justice	Economics	Potential increases in fish native fish populations that could benefit local fishing industry (leaves more wild fish in the ocean for tourists to catch).
Environmental Justice	Transportation	Transporting juvenile fish to populate the farm raises energy and efficiency questions.
Environmental Justice	Transportation	A vehicle miles of travel (VMT) based Traffic Impact Study (TIS) should be provided for this project. Please use the Governor’s Office of Planning and Research Guidance to identify VMT related impacts.
Environmental Justice	Antibiotics	Will the fish farm use antibiotic or chemical treatments?
Environmental Justice	Noise	Noise disturbances from underwater construction and boat activity could damage hearing in sea life.
Environmental Justice	Noise	Noise disturbances from operation of the farm could impair species’ behavior through unnatural sounds.
Environmental Justice	Noise	Increased vessel traffic, port use would contribute to increased ocean noise. During the construction stage, POA would need pier or wharf access, and vessels would transport the materials needed to assemble the facility. Similarly, during the operational stage, vessels would transport feed, staff, and harvested fish between the facility and the Port of San Diego, Port of Long Beach, or Port of Los Angeles on a regular basis. NOAA must consider the potential impacts of increased port use and vessel traffic in the waters between the ports and the facility locations at both alternatives. In particular, risk of vessel strike and harassment from increased ocean noise for marine mammals and other wildlife.
Natural Environment	Air Quality/ Climate Change	Increased vessels in the area during construction and operation could negatively impact air quality.
Natural Environment	Air Quality/ Climate Change	The Pacific Ocean Aquafarms will provide fish from farm to market with much shorter transportation legs. Most seafood imported from overseas must travel thousands of miles, most by steamer but a considerable amount by air freight. From a study of vessels transporting seafood from foreign aquaculture in 2015, some seafood products can have carbon footprints up to 14 times the product’s own weight. The proposed Pacific Ocean Aquafarms project will dramatically reduce the carbon footprint of this fish, by not requiring extensive transportation by air cargo.
Natural Environment	Air Quality/ Climate Change	Significant increases of land-based vehicles, particularly diesel-powered trucks to provide construction materials, feed, juvenile fish, harvested fish, and other supplies, significantly increasing greenhouse gas (GHG) emissions, diesel particulate matter, oxides of nitrogen, and oxides of sulfur. These emissions are known to cause cancer and are associated with a wide range of respiratory and cardiovascular illnesses, which will disproportionately affect frontline, environmental justice communities adjacent to the port.
Natural Environment	Air Quality/ Climate Change	As the region’s aggressive climate action plans are specific to various public agencies, the project must first determine accountability for emissions in the multi-jurisdictional coastal area, and then consider how those emissions will be monitored and assessed.
Natural Environment	Animal Migration	EIS should consider the species/stocks and numbers of marine mammals potentially displaced from important habitat, and their distribution, habitat use, and behaviors in those areas.
Natural Environment	Animal Migration	EIS should consider whether the facility would be situated within marine mammal migratory corridors, especially those of endangered or threatened species.
Natural Environment	Animal Migration	Need to analyze impact of fish farm on wildlife migration through the area (grey, blue, and humpback whales).
Natural Environment	Animal Migration	Potential for displacement of dolphins and sea lions from an important feeding area.
Natural Environment	Animal Migration	Increased potential for marine mammal strikes as a result of boat usage during construction and operation of the fish farm.
Natural Environment	Animal Migration	What are potential impacts that project anchoring will have on grey while migration zone?
Natural Environment	Animal Migration	Large marine mammals as well as other predatory species will congregate at the locations with results similar to Pier 39 in San Francisco and expansion/extension of rookeries such as Children’s Pool La Jolla.

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
Natural Environment	Animal Migration	Analyze the increased risk to marine wildlife from ship strikes related to the anticipated increase in vessel traffic and changes in existing marine traffic patterns associated with the proposed project.
Natural Environment	Animal Migration	Migration routes and breeding and feeding areas should be avoided by the project to the greatest extent possible.
Natural Environment	Animal Migration	EIS should discuss how the project will avoid, minimize, and respond to wildlife interactions, including entanglement, small vessel strikes, and fish escapement, which have the potential to significantly impact the state's marine resources.
Natural Environment	Bycatch/ Entanglement	In assessing the risk of entanglement, the EIS should contain a quantitative risk assessment and detailed descriptions of all the gear that would be used to construct the cages, the anchoring system, and the network of lines to be used to hold the array together, including at least the type (material), diameter, stiffness, color, acoustic characteristics, and breaking strength of all lines; typical baseline and variation in slack and tension of all lines; distances between lines; size and buoyancy of all buoys; and type and diameter of all metal cables.
Natural Environment	Bycatch/ Entanglement	There could be possible increases in wildlife bycatch.
Natural Environment	Bycatch/ Entanglement	Need to assess the potential for sea life to become entangled in the fish pen nets.
Natural Environment	Mammal Deterrence	What deterrence methods will or might be used to repel and deter marine mammals from approaching or entering the facility?
Natural Environment	Mammal Deterrence	What potentially negative impacts could those deterrence methods have on marine mammals?
Natural Environment	Mammal Deterrence	Marine mammals and other wildlife will likely be attracted to the POA facility. The EIS must consider the impacts that increased predator presence may have on other marine organisms in the area, as well as how POA intends to address predator interactions with the facility itself.
Natural Environment	Mammal Deterrence	Ocean predators could be attracted to the fish farm and then killed by predator deterrent methods when they approach, causing others to go out of their way to avoid the area.
Natural Environment	Mammal Deterrence	The use of "seal bombs" that Steve L. suggested using to ward off curious pinnipeds can be dangerous to human and nonhumans alike by sending dangerous shockwaves over 80 km underwater. Within half a meter they can be fatal to dolphins and smaller animals.
Natural Environment	Mammal Deterrence	Anti-predation measures such as acoustic deterrent devices, aerial and underwater netting, and vessel chases can harm both targeted and non-targeted marine life. Please evaluate these potential impacts in the EIS and address how potential conflicts with the Marine Mammal Protection Act will be addressed.
Natural Environment	Mammal Deterrence	Will lethal methods be used on seabirds and other animals that attempt to depredate the fish?
Natural Environment	Fish Feed	What source of fish feed will be used- Baltic Sea? Supplemented with land-based nutrients, such as corn, soybeans, or grains? Fish meal? Poultry?
Natural Environment	Fish Feed	What non-fish food will be fed to the farmed fish? Will it contain antibiotics or other chemicals that will dissolve into the ocean and impact other animals?
Natural Environment	Fish Feed	Growing crops or small fish to in turn feed higher trophic animals represents an enormous waste of energy, water, and land.
Natural Environment	Fish Feed	Aquaculture is the most efficient and sustainable method of protein production; far superior to chicken, pork, or cattle. The feed conversion ratio for finfish aquaculture is very low, averaging approximately 1.15:1 (approximately 1.15 lbs of feed used to produce 1 lb of flesh). Additionally, the use of wild fish protein and oil in aquaculture feed has been decreasing as a result of an increased use of plant-based feed substitutes. The "fish in, fish out" (FiFo) ratio, the amount of wild fish needed in feed to produce a pound of farmed fish, when averaged across species, is equal to or less than 0.5:1 (approximately 0.5 lbs of wild fish used to produce 1 lb of farmed fish) for current worldwide aquaculture production.
Natural Environment	Fish Feed	The FIFO ratio described for the project is inaccurate because not all of the fish carcass is used for fish product. Additionally, whether the feed comprises fish or algae oil, this feed needs to be produced, stored, and transported to the aquaculture facility.
Natural Environment	Fish Feed	Inherent inefficiency with feeding farmed fish using wild caught fish.
Natural Environment	Fish Feed	Impacts from fed food releases on native species should be studied.
Natural Environment	Fish Feed	Potential of altering diet of native species through land-based fish feed.
Natural Environment	Fish Feed	What will be the impacts from farming fish to use as fish feed?
Natural Environment	Fish Feed	It is critical that the Draft EIS include an analysis of the potential constituents in fish feed, the risk these constituents pose, and mitigation recommendations to eliminate these risks.
Natural Environment	Ecosystem	EIS should consider the potential for the facility to alter the prey field (e.g., the availability of forage fishes) of marine mammals that feed in the area.
Natural Environment	Ecosystem	Impacts to nutrient cycling and waste deposition on the ocean floor should be considered.
Natural Environment	Ecosystem	Need to analyze potential creation of biological "dead zones" as a result of concentrated fish waste that could damage the ocean surrounding the fish farm.
Natural Environment	Ecosystem	Potential for escape of fish from the pens and their impact on wild fish populations (outcompetition).
Natural Environment	Ecosystem	Potential for farmed fish to develop sea lice and other diseases (Piscine Reovirus) that would harm wild fish populations.
Natural Environment	Ecosystem	Impacts to local wild populations of marine life should be considered.
Natural Environment	Ecosystem	What are the potential impacts on the 11 MPAs off the San Diego coast?
Natural Environment	Ecosystem	What are impacts on predator behavior (sea lions)?
Natural Environment	Ecosystem	Project could result in reduction in the quality, quantity, and variety of local seafood and fish.
Natural Environment	Ecosystem	Project will cause discharge of pollutants into the ocean and sea floor.

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
Natural Environment	Ecosystem	Damage to native fish species' health and numbers from a change in their environment (feeding patterns, food sources, propagation, and population).
Natural Environment	Ecosystem	Potential for genetic degradation of wild fish populations by escaped farmed fish.
Natural Environment	Ecosystem	What is the potential for pollution from agricultural chemicals released by fish feed (if feed is land-based)?
Natural Environment	Ecosystem	Evaluate impacts of chemicals used in aquaculture: antibiotics, parasiticides, pesticides, hormones, anesthetics, various pigments, minerals, and vitamins (should be evaluated on human health and the natural marine ecosystem).
Natural Environment	Ecosystem	Analyze impacts to the La Jolla Elkhorn Kelp Forest.
Natural Environment	Ecosystem	How will biosecurity be achieved given Hubbs-SeaWorld Research Institute (HSWRI) history (cited as 30 years of viral and bacterial outbreaks)? (Response provided: Use of native fish and protective measures.)
Natural Environment	Ecosystem	Fish farms spew waste into the ocean, including fish feed, chemicals, antibiotics, fuel, and garbage. How this impacts humans, including small children, must be examined. Beaches from Mexico to Carlsbad and possibly beyond must be reviewed since it seems likely that the tides and currents will wash a lot of this stuff on shore.
Natural Environment	Ecosystem	How will algal blooms caused by the fish farm impact the food chain and migrating species?
Natural Environment	Ecosystem	How will wild fish be impacted?
Natural Environment	Ecosystem	The impacts of other fish species that may be farmed in the future must also be analyzed.
Natural Environment	Ecosystem	The project presents multiple dangers to threatened and endangered species in the vicinity, including, at a minimum, black abalone, white abalone, sei whale, North Pacific right whale, killer whale, blue whale, sperm whale, gray whale, fin whale, leatherback turtle, green turtle, olive ridley turtle, and gulf grouper.
Natural Environment	Ecosystem	There are dangers associated with the capability of net pens to act as fish aggregating devices.
Natural Environment	Ecosystem	Pressure on wild fish stocks as a source of feed for cultivated fish. Wild California yellowtail and white sea bass eat key forage fish such as sardines and anchovies. The EIS must consider the extent to which procuring feed for the cultivated fish populations in the POA facility will stress the ability of these species to adequately provide for the nutritional needs of local wildlife, as well as alternative sources of feed that could avoid or mitigate reliance on wild fish stocks.
Natural Environment	Ecosystem	The bottom make up of the proposed Mission Bay location is some of the best fish habitat that can be found. The entire area is a "live bottom," inhabited by many types of fish, snail, stingray, crab, and sea star. The lower relief is covered in fan coral.
Natural Environment	Ecosystem	Aquaculture practices are known to attract large and persistent aggregations of fish, thereby having potentially large impacts on wild fish feeding behavior, energetics, fecundity, and migratory behavior, as well as the increased potential for disease transmission or genetic introgression between wild and farmed fish stocks.
Natural Environment	Ecosystem	This project, along with its expected impacts on marine life behavior, including feeding, could have a significant impact on this larval connectivity between the MPAs at the northern and southern ends of the Bight.
Natural Environment	Ecosystem	Analysis should quantify the loss of bait fish from this project and its impacts.
Natural Environment	Ecosystem	Effects and interactions on other plant and animal species, especially species protected or recovering under state and federal law, should be analyzed.
Natural Environment	Ecosystem	The design of facilities and farming practices should be analyzed so as to avoid adverse environmental impacts and to minimize any unavoidable impacts.
Natural Environment	Ecosystem	Evaluate the amount of organic pollution that would result from the operation of the proposed facility and the potential environmental impacts associated with this pollution.
Natural Environment	Ecosystem	Include in the EIS an assessment and analysis of the environmental consequences of the presence of antibiotics in sediments and aquatic biota, the presence and prevalence of antibiotic-resistant organisms in sediments and indigenous species, and the presence and prevalence of antibiotic residues in fish and non-target aquatic organisms. In addition, please also evaluate in the EIS how the accumulation of antibiotics in sediments may potentially interfere with bacterial communities and affect the mineralization of organic wastes.
Natural Environment	Ecosystem	Concerned about the growing and potential use of toxic parasiticides, including cypermethrin and ivermectin, to control parasites such as sea lice in finfish aquaculture operations can negatively affect benthic communities in surrounding areas. Similarly, the use of anti-fouling chemicals, such as copper, on aquaculture pens, nets, and other structures often results in elevated concentrations of these chemicals in sediments under and around aquaculture facilities and could result in changes to benthic community structure and diversity. Please include an evaluation of the potential for these impacts in the EIS.
Natural Environment	Ecosystem	What are the potential impacts of small- and large-scale marine debris coming from the project?
Natural Environment	Ecosystem	The EIS should include a commercial and recreational fisheries analysis that focuses on impacts to both federally and state-managed species and associated habitats.
Natural Environment	Ecosystem	Recommend that the Draft EIS include a risk analysis and management plan, such as a Hazard Analysis and Critical Control Point (HACCP) plan, detailing measures to detect and control aquatic invasive species and pathogens at the facility.
Natural Environment	Ecosystem	If this project moves forward, how will this loss of habitat be mitigated for the sea turtles that currently use this area?
Natural Environment	Ecosystem	How will habitat loss affect marine mammals during breeding and during the rest of the year? Will there be a loss of foraging sites and if so, what are the impacts/mitigation measures?

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
Natural Environment	Ecosystem	A fish farm occupying 1,000 acres will eliminate foraging areas from non-piscivorous seabirds and piscivorous seabirds that consume other forage items besides fish that use this area year-round.
Natural Environment	Ecosystem	A fish farm occupying 1,000 acres will eliminate local foraging areas and strain local resources by using local baitfish as a food source to the farmed fish and impact breeding seabirds when abundant fish supplies are critical to provision chicks towards recruitment of populations.
Natural Environment	Ecosystem	Include details on bio foul management on submerged components of the fish farm (accumulated growth of mussels, shellfish, other sea life); will it just accumulate on sea floor similar to oil platforms in SB?
Natural Environment	Avian	What are impacts on seabirds (California Least Tern)?
Natural Environment	Avian	Analysis should include impacts of predator control methods on seabirds.
Natural Environment	Avian	More seabirds could be attracted to the fish farm. How will the increased presence of seabirds impact the local ecosystem?
Natural Environment	Avian	How will this project impact the floating kelp beds that the seabirds use to rest? Are there any mitigation measures for kelp bed destruction?
Natural Environment	Avian	What is the potential for ocean acidification as a result of nutrient loading?
Natural Environment	Hazards	What would happen to the farm in the event of a large storm? Will this cause garbage to be spewed across our beaches or impact marine life? Will fish escape and cause problems with marine life?
Natural Environment	Hazards	The EIS should assess the extent to which currents, storms, and higher energy waters offshore will increase likelihood of damage to pens, increasing the risk of fish escape.
Natural Environment	Hazards	What is the possibility and the impacts that would occur if the infrastructure was to drift during severe weather?
Hydrology	Not Applicable	How will the tides and currents impact where food waste travels/is deposited?
Hydrology	Not Applicable	Possible changes in hydrodynamics caused by the facility may exacerbate impacts due to nutrient enrichment and lead to changes in sedimentation and larval transport and dispersal, which should be thoroughly evaluated.
Hydrology	Not Applicable	Determine how far the tide will carry pollutants discharged by the fish farm; what other areas will be affected as these pollutants travel?
Hydrology	Not Applicable	What are the waste discharge impacts on California's ocean waters? (Response provided: EIS will assess potential impacts on the State's marine waters and potential for causing or contributing to the exceedances of the State's Water Quality Control Plan for Ocean Waters of California.)
Hydrology	Not Applicable	Nutrient inputs to the seafloor and the surrounding water column will make it difficult or impossible for the City of San Diego to effectively monitor potential wastewater effects on sediment quality, macrobenthic invertebrate community structure, and fish communities in proximity of the proposed development.
Hydrology	Not Applicable	Are water quality impacts being considered?
Cumulative Projects and Impacts	Not Applicable	Long-term impacts to economy and marine ecology in worst-case scenarios should be analyzed.
Cumulative Projects and Impacts	Not Applicable	What are the long-term impacts to local tourism industry?
Cumulative Projects and Impacts	Not Applicable	Should focus on the creation of sustainable practices instead of trying to increase production.
Cumulative Projects and Impacts	Not Applicable	Multiple aquaculture operations in a given geographic region may have unintended or unforeseen significant cumulative impacts.
Cumulative Projects and Impacts	Not Applicable	Impacts to oil rig operations (complicates matters of company responsibility in the event of future damage or liability caused by the rig) should be included.
Cumulative Projects and Impacts	Not Applicable	Need to study interference with squid fisheries nearby.
Cumulative Projects and Impacts	Not Applicable	California has pledged to conserve 30% of its land and coastal waters by 2030. This project does not support the overall goal to support ecosystems.
Cumulative Projects and Impacts	Not Applicable	Cumulative impacts of fish farming operations are unknown.
Cumulative Projects and Impacts	Not Applicable	Fish farms are inefficient in terms of fish production and sustainability.
Cumulative Projects and Impacts	Not Applicable	Having multiple aquaculture operations in a given geographic region may have unintended or unforeseen significant cumulative impacts.
Cumulative Projects and Impacts	Not Applicable	Repairing the environment will be difficult if the project has negative ecological impacts.
Cumulative Projects and Impacts	Not Applicable	Kelp and shellfish should be farmed if the project is really focusing on sustainability.
Cumulative Projects and Impacts	Not Applicable	The EIS must also consider the cumulative impacts of the POA facility in concert with other uses of the area surrounding the San Diego and Long Beach sites, including shellfish and algae aquaculture, offshore wind energy, and military activity. Shellfish and algae aquaculture are fledgling industries in Southern California. An oyster nursery operates in the San Diego Bay, and other aquaculture projects are found in the region. Catalina Sea Ranch, a shellfish aquaculture facility, previously operated near the Long Beach alternative site, and two other offshore aquaculture facilities have been proposed nearby. Additionally, the state of California is currently working on a plan for approving future shellfish and algae aquaculture projects, and the California Ocean Protection Council (OPC) has stated a goal of promoting sustainable aquaculture. Consequently, it is reasonably foreseeable that other aquaculture facilities will be developed in the vicinity of the POA facility, and the cumulative impacts of multiple facilities must therefore be assessed.
Cumulative Projects and Impacts	Not Applicable	Offshore wind energy is also an emerging industry on the California coast. A joint state-federal task force, including the California Energy Commission and the Bureau of Ocean Management, is currently working to determine appropriate sites for offshore wind in California. NOAA should consider the potential cumulative impacts of the POA facility and the construction, maintenance, and operation of forthcoming offshore wind turbines. Finally, the waters of Southern California are used extensively by the U.S. Navy. The EIS should therefore assess the cumulative impacts of the POA facility and naval uses.

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
Cumulative Projects and Impacts	Not Applicable	Assess how impacts from the POA facility may impact the state's coastal conservation efforts.
Cumulative Projects and Impacts	Not Applicable	POA facility may impair the capacity of MPAs to protect biodiversity, marine ecosystems, and marine life populations.
Cumulative Projects and Impacts	Not Applicable	EIS must also consider how this approval will affect efforts by the U.S. Fish and Wildlife Service (USFWS), NMFS, EPA, state agencies, tribes, commercial fishermen, and foreign nations to protect wild fish populations, including already imperiled wild native stocks, and promote sustainable fishing practices.
Cumulative Projects and Impacts	Not Applicable	A foreseeable impact is that this approval would open the door to various additional offshore aquaculture projects in San Diego or even nationwide.
Cumulative Projects and Impacts	Not Applicable	The EIS should consider the impacts of this project on the City of San Diego's Pure Water wastewater recycling project, and consider the cumulative impacts of the projects together.
Cumulative Projects and Impacts	Not Applicable	Need to analyze the cumulative impacts of the POA project, Avalon Ocean Farm, and Catalina Sea ranch if all three are operational at the same time in the future.
Cumulative Projects and Impacts	Not Applicable	The Southern California Aquaculture Opportunity Area (AOA) is expected to support three to five aquaculture facility sites of different kinds (i.e., finfish, shellfish, algae, etc.). The Draft EIS should, thus, evaluate the cumulative impacts of the maximum number and total area of aquaculture facilities that could be in Southern California.
Cumulative Projects and Impacts	Not Applicable	Recommend that the Draft EIS evaluate the potential cumulative impacts of nutrient enrichment from the project in combination with that from existing ocean outfall pipelines (i.e., treated sewage/wastewater). The California Department of Fish and Wildlife is aware of at least two outfall pipelines that exist near the San Diego alternative site (Point Loma Outfall and Scripps Canyon Outfall).
Mitigation and Monitoring	Not Applicable	Will all actions/monitoring be reported to the community?
Mitigation and Monitoring	Not Applicable	Fish farming industry has a poor record of compliance.
Mitigation and Monitoring	Not Applicable	Consider other locations for the proposed project in waters that are farther offshore and not on a heavily populated coastline.
Mitigation and Monitoring	Not Applicable	How would the facility's mitigation be developed in light of failings at Catalina Sea Ranch, especially related to lost gear? Mitigation measures need to be developed to robustly address the potential impacts/effects of the project including lost gear.
Mitigation and Monitoring	Not Applicable	The staff from all agencies engaged in drafting this EIS should leverage the growing body of scientific literature and expertise on marine aquaculture to adequately assess and weigh the risks and benefits this project may pose to local ecosystems and food systems.
Mitigation and Monitoring	Not Applicable	There should be hard limits on how much of each effluent the project will dump into the ocean. Specific numerical limits should exist for nitrogen, phosphorus, and pharmaceutical discharge. NOAA should require reporting numbers for downstream concentrations of these pollutants and include nutrient gradient tests for both nitrogen and phosphorous to be set up in waters around the cages.
Mitigation and Monitoring	Not Applicable	Phytoplankton populations nearby should be monitored. Phytoplankton feed off nutrients like phosphorous and nitrogen and can bloom in massive numbers, suffocating all animal life in the area by depleting oxygen in the water.
Mitigation and Monitoring	Not Applicable	Plan-Do-Check-Revise is a common approach to improving performance. The Pacific Ocean Aquafarms' environmental monitoring system will help ensure that the farm meets its regulatory requirements and performance goals it establishes.
Mitigation and Monitoring	Not Applicable	Can science and/or engineering result in mitigation? Unfortunately the proposed sites may have issues which cannot be easily ignored. It may be easier to go to the Moon or Mars.
Mitigation and Monitoring	Not Applicable	Monitoring program should also include measurement and reporting of actual impacts to fisheries and marine wildlife, water quality, currents and sediment deposition, benthic habitats and substrate, as well as populations of pathogens and invasive species.
Mitigation and Monitoring	Not Applicable	The monitoring plan should also include detailed adaptive management strategies and trigger points for additional regulatory consultation and corrective actions.
Mitigation and Monitoring	Not Applicable	Develop and implement a marine species entanglement prevention and response plans as well as a monitoring, maintenance, and training plan which include safe navigation considerations.
Mitigation and Monitoring	Not Applicable	Should consult with the U.S. Coast Guard and the California Department of Fish and Wildlife's Office of Spill Prevention and Response regarding federal and state protocols that exist for these types of projects. The California Department of Fish and Wildlife and Ocean Protection Council (OPC) recommend that, prior to construction activities, the project develop and implement, at minimum, a spill prevention and response/control plan, debris management plan, and gear marking and recovery plan.
Mitigation and Monitoring	Not Applicable	Enforceability of any proposed mitigation, including but not limited to any inspection and enforcement to ensure the use of native fish stock, the ongoing monitoring of diseases and parasites, the chemical and nutrient inputs to the POA facility, enforcement of any recovery of escaped fish and repair of destroyed net pens, and oversight of commercial landing and distribution of farmed fish.
Design/Operation and Maintenance	Not Applicable	Aquaculture should follow the recommendations of the Ocean Protection Council.
Design/Operation and Maintenance	Not Applicable	Need to establish a national framework for the review, permitting, leasing, and regulatory oversight of projects that leads to robust best management practices to address environmental impacts and monitoring requirements for ocean aquaculture.
Design/Operation and Maintenance	Not Applicable	Impacts from maintenance during the project's operational phase should be considered in the report.
Design/Operation and Maintenance	Not Applicable	Regulations for operating aquaculture in federal waters needs to be established to provide transparent oversight before this project is approved.

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
Design/Operation and Maintenance	Not Applicable	The pens will need to be designed so that ocean predators, like sea lions and orcas, are not able to break into the pens and access the contained fish.
EIS Administrative and Permitting Issues	Scoping Process	Where can the public access to more detailed project information? (coordinates for project locations, datasets being used, etc.?)
EIS Administrative and Permitting Issues	Scoping Process	The public finds itself in the frustrating position of being asked to comment at length on the potential environmental impacts of a project for which it has no application, no GPS location coordinates, or any other information outside of a brief webpage posting or two. At a minimum, we ask that the NEPA scoping comment period be extended through several weeks after such specific information is released to the project.
EIS Administrative and Permitting Issues	Scoping Process	Good communication, which occurs early and often, is essential if both industries are expected to co-exist. Outreach should be made nationally, regionally, and locally, as appropriate to the level of impacts.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	NOAA: National Environmental Policy Act (NEPA) Lead for the EIS.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	Section 10 Rivers and Harbors Act Permit.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	Clean Water Act Section 402/403 National Pollutant Discharge Elimination System (NPDES) Permit.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	National Pollutant Discharge Elimination System (NPDES) Permit should discuss technology-based effluent limitations that apply; water quality based effluent limitations that will apply, including the basis for the limitations; receiving limitations that will apply, including the basis for the limitations; best management practices that might be required; compliance schedules that might be required; scope and frequency monitoring and reporting program; and special studies that might be required.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	Does NOAA have the legal authority to create an aquaculture regime? Executive Order 13921—signed 3 months before the Fifth Circuit decision—is not a proper substitute for the clear lack of congressional authority delegated to NOAA.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	NOAA should stop work on environmental review and applications for the issuance of any required permits until further authority from Congress to proceed with aquaculture projects in federal waters occurs.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	Should NOAA move forward with this project, careful consideration must be given to the lack of existing comprehensive regulations and regulatory oversight to deal with the myriad environmental impacts that would likely occur if this project were to move forward.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	All facilities used for the controlled growing and harvest of aquatic plants and animals in the state must be registered annually, including the land-based component(s) of facilities located outside of state waters. Registration forms are issued by the California Department of Fish and Wildlife under provisions of the Fish and Game Code Section 15101 and regulations of the Fish and Game Commission.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	Critical to the continuing approval of this modified permit is maintaining the consistency of the City of San Diego's Ocean Management Plan, an important aspect of which is the ability to discern outfall discharge effects from other local and regional impacts. Threats to the modified permit, including any loss of integrity to the Ocean Management Plan, jeopardize these plans and expose the City of San Diego to billions of dollars in liability.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	The environmental review process required by the National Environmental Policy Act (NEPA) is insufficient on its own to successfully plan for the compatibility of two large-scale ocean uses. Whether in conjunction with NEPA, or well in advance, a holistic planning process that identifies the needs of each industry—from the scientific, operational, and management perspectives—and then considers the optimum spatial uses for each will provide the only pathway for truly maximizing ocean health and the value of its resources.
EIS Administrative and Permitting Issues	Permitting/Agreements/Legal Considerations	The California Department of Transportation (Caltrans) has discretionary authority with respect to highways under its jurisdiction and may, upon application and if good cause appears, issue a special permit to operate or move a vehicle or combination of vehicles or special mobile equipment of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code. Will need to use the EIS to determine environmental compliance when creating rights-of-ways.
EIS Administrative and Permitting Issues	Interagency Coordination	Urge the federal agencies to coordinate their efforts to establish aquaculture offshore California with those of the state government.
EIS Administrative and Permitting Issues	Interagency Coordination	The OPC (Ocean Protection Council) is currently developing a statewide aquaculture action plan for assessing and approving marine algae and shellfish aquaculture projects in state waters. Up to this point, NOAA has not adequately engaged with the OPC on federal aquaculture efforts off the California coast.
EIS Administrative and Permitting Issues	Interagency Coordination	There is no indication the appropriate Port Pilot's associations have been included as part of the planning/initial permitting processor that the permit will require a bond for removal/disposal of all equipment at permittee expense.
EIS Administrative and Permitting Issues	Interagency Coordination	Any offshore aquaculture operation must endeavor to share this ocean space responsibly with stakeholders and take every measure to ensure compatibility among users and avoid conflicts.
EIS Administrative and Permitting Issues	Interagency Coordination	Review the findings of the Ocean Planning Partnership's Preliminary Assessment Report.

Table 5. Federal Register Scoping Comments Received

Primary Category	Secondary Category	Comment
EIS Administrative and Permitting Issues	Interagency Coordination	Recommend that the applicant consult the California Department of Fish and Wildlife, commercial and recreational fishers, the National Marine Fisheries Service, the Pacific Fishery Management Council, and relevant data sources such as the California Cooperative Oceanic Fisheries Investigations (CalCOFI) larval fish data sets regarding potential impacts to fisheries from the project and the location of appropriate sites.

Table 6. Public Scoping Meetings Comments Received

Primary Category	Secondary Category	Comment
Project Description/Project Alternatives	Project Description	What is the total seafloor area for the farm?
Project Description/Project Alternatives	Project Description	Since POA is not part of the Aquaculture Opportunity Area, will the project follow the accelerated timeframe laid out in the May 7, 2020 Executive Order?
Project Description/Project Alternatives	Project Description	What is the estimated net seafood production after taking into account the coastal pelagic species caught for pellet feed?
Project Description/Project Alternatives	Project Description	What are the project location coordinates for the proposed site?
Project Description/Project Alternatives	Project Description	What is the percentage of rocky habitat allowed? Similar to AOA [Aquaculture Opportunity Area] standards?
Project Description/Project Alternatives	Project Description	What is the destination for farmed yellowtail (will the farmed fish be used for sushi)?
Project Description/Project Alternatives	Project Description	What are the coordinates of the Long Beach site? Comments cannot be made sufficiently without them. (Response provided: Coordinates are under development and will be provided on the website as soon as they are available.)
Project Description/Project Alternatives	Project Description	Why does POA think it doesn't compete with commercial fisheries? (Response provided: Proposed product would be sashimi grade to compete with imported yellowfin not with locally caught.)
Project Description/Project Alternatives	Project Description	Will the enclosure be net pens or aquapods, and how will they be tethered to the ocean floor? How deep will they penetrate the seafloor?
Project Description/Project Alternatives	Project Description	What is the feed to fish ratio for sashimi grade yellowtail and how would that help global food supply issues?
Project Description/Project Alternatives	Project Description	What containment materials will be used? Will copper wire be required?
Project Description/Project Alternatives	Project Description	HSWRI failed at the restocking funded by the state, why should anyone expect them to succeed at this? (Response provided: Not a consideration for the EIS. That effort is not related to the proposed project that HSWRI has applied for the POA.)
Project Description/Project Alternatives	Project Description	How will the fish blocks data be expressed in a meaningful/useable way given they are 100 square mile blocks? (Response provided: We welcome ideas for data use.)
Project Description/Project Alternatives	Project Description	Will there be a safety net around the net pens that will exclude fishing and other uses? How large will it be? (Response provided: Yes, there will be a safety zone but we don't know how large at this time.)
Project Description/Project Alternatives	Project Description	Hubbs previously said they were not able to raise yellowtail in Japan. Did they have a major breakthrough, or did they decide they are similar enough to call them the same species?
Project Description/Project Alternatives	Project Alternative Locations	What is the feasibility of the half-scale alternative for the fish farm? Why is this an option?
Project Description/Project Alternatives	Project Alternative Locations	Why don't we facilitate sustainable wild-caught seafood as opposed to implementing a fish farm in waters known to produce wild-caught seafood?
Project Description/Project Alternatives	Project Alternatives	Bring the tuna fleet back to San Diego.
Human Environment	Recreation/ Property Rights/ Access	Details on public access to the site (site management); how close can recreational fisherman come if the project attracts sportfish?
Human Environment	Recreation/ Property Rights/ Access	Details on boat safety near the project site (how will POA prevent vessel accidents similar to what happened at Catalina Sea Ranch, where a death occurred at the offshore farm?)
Human Environment	Scenic Integrity/ Visual Impacts	What are the visual impacts of the project going to be?
Human Environment	Health/ Safety Concerns	What are the impacts on water quality (visibility and cleanliness)?
Human Environment	Health/ Safety Concerns	Elaborate on what is considered in the "environmental justice" section of the EIS.
Human Environment	Economics	Potential for job creation (more than 75 jobs?).
Human Environment	Transportation	Will the impacts of transporting fish from farm to consumer be included in the EIS?
Human Environment	Transportation	What would the size of the vessels be and how many trips would they make to and from the site on a daily or weekly basis?
Human Environment	Antibiotics	Details on farmed fish treatment (antibiotics, hormones, other pharmaceuticals, etc.).
Natural Environment	Bycatch/entanglement	What are methods for keeping birds and other animals out of the fish pens?
Natural Environment	Fish Feed	Live or pellet food to feed fish? (Response provided: Pellet.)
Natural Environment	Ecosystem	Excess nitrogen and phosphorus could result in enormous algal blooms and dead zones (nutrient pollution).
Natural Environment	Avian	Will night lighting be used? If so, what are the impacts of night lighting on marine and avian species?

Table 6. Public Scoping Meetings Comments Received

Primary Category	Secondary Category	Comment
NEPA Process/EIS Administrative and Permitting Issues	Scoping Process	Is USACE application a public document available for public review? (Response provided: USACE Los Angeles District doesn't generally release permits publicly, and the EIS will share any needed information from the permit application.)
NEPA Process/EIS Administrative and Permitting Issues	Scoping Process	Desire for more information about the project and better public communication/involvement strategies moving forward.
NEPA Process/EIS Administrative and Permitting Issues	Scoping Process	Will there be a longer public comment period for the draft EIS?
NEPA Process/EIS Administrative and Permitting Issues	Scoping Process	The public can request an extension when any rule or proposal is offered by a federal agency for public comment.
NEPA Process/EIS Administrative and Permitting Issues	Scoping Process	NOAA NMFS seeking public comment on guidance document to safely deter marine mammals from the project site.
NEPA Process/EIS Administrative and Permitting Issues	Scoping Process	What would be the approval process if the project decides to farm a different/additional species of fish in the future?
NEPA Process/EIS Administrative and Permitting Issues	Scoping Process	Will there be an EIS for each species considered (one for yellowtail and another for sea bass)?
NEPA Process/EIS Administrative and Permitting Issues	Scoping Process	Will there be additional project information posted prior to the scoping report? (Response provided: Yes, updated information, such as location for alternatives, will be provided on the website.)
NEPA Process/EIS Administrative and Permitting Issues	Scoping Process	Residents want a legal vote on what is happening in their water and views of the ocean from their homes.
NEPA Process/EIS Administrative and Permitting Issues	Interagency Coordination	Extent to which state interests are considered during EIS determination should be examined.
NEPA Process/EIS Administrative and Permitting Issues	Interagency Coordination	Should include details on Pacific Fishery Management Council involvement in EIS process, especially since they are involved in Essential Fish Habitat.
NEPA Process/EIS Administrative and Permitting Issues	Interagency Coordination	Which agency is responsible for monitoring safety of the seafood generated by this farm?
NEPA Process/EIS Administrative and Permitting Issues	Interagency Coordination	In the event the project fails, which agency is responsible for removing the fish pens and supporting structures?

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5 Summary of Future Steps in the NEPA Process and Permitting Process

5.1 NEPA Process

The NEPA process requires a team of interdisciplinary resource specialists to participate in preparing the Draft and Final EIS. It is important to engage the public and relevant agencies beginning at the earliest stages of, and continuing throughout, the environmental review process to effectively address issues, comments, and concerns. The steps of the NEPA process, and agency authority and decisions to be made, are described below based on the CEQ regulations as supplemented by NOAA's NEPA Procedures: Policy, and Procedures for Compliance with the National Environmental Policy Act and Related Authorities – Companion Manual for NOAA Administrative Order 216-6A (NOAA 2017).

Identification of Issues

Issues associated with the project were identified during the NEPA scoping process and will be carried forward for detailed analysis in the Draft EIS. The scoping process and the issues identified through it are documented in this scoping report.

Data Information and Collection

Much of the necessary resource data and information will be compiled from existing data and technical studies prepared for the project by POA or through local agencies. Should existing data be insufficient to conduct the appropriate level of analysis, additional data and information will be collected from all applicable and available sources to update and/or supplement existing data (40 CFR 1502.21).

Preparing Draft EIS

Based on collected data and information obtained during interagency coordination and the public scoping process, a description of the project and alternatives (including the “no action” alternative) will be further developed. The environmental effects likely to be caused by the proposed action and alternatives, informed by this data and input, will also be evaluated and documented as will reasonable means to mitigate adverse environmental impacts. The environmental effects of the alternatives will be compared and contrasted to inform both the public and decision makers of environmental trade-offs that would likely occur. Only alternatives that NOAA, with concurrence of the cooperating agencies, determines meet the purpose and need of the proposed action (i.e., reasonable alternatives) will be considered in detail in the Draft EIS. The Draft EIS will disclose alternatives considered but eliminated from detailed review.

Draft EIS and Public Comment Period

The Draft EIS, which is anticipated to be published in 2021, will include the following sections:

- Executive Summary
- Introduction
- Description of the Proposed Action and Alternatives

- Affected Environment
- Environmental Consequences
- Comparison of Alternatives
- Cumulative Impacts
- Other CEQA Considerations
- Compliance with Laws, Policies, and Requirements
- List of Preparers and Contributors
- List of Agencies, Organizations, and Persons to Whom Copies of the EIS are Sent
- Comments and Coordination

Upon completion of the Draft EIS, NOAA will circulate the Draft EIS to agencies and stakeholders and file the Draft EIS with EPA; EPA will publish a Notice of Availability in the *Federal Register*. A public comment period for a minimum 45-day period will follow publication of the Notice of Availability in the *Federal Register*. Hard copies and electronic copies of the Draft EIS will be distributed to elected officials, regulatory agencies, interested members of the public, and to-be-determined repositories (e.g., libraries) for public review. The document will also be available online at the project website hosted by NOAA at <https://www.fisheries.noaa.gov/national/aquaculture/pacific-ocean-aquafarms-environmental-impact-statement>, as well as on EPA's e-NEPA website: <https://cdxnodengn.epa.gov/cdx-enepa-public/action/eis/search>.

Response to Comments, Preparation of Final EIS, and Record of Decision

After the Draft EIS public comment period, NOAA will prepare a Final EIS, making changes in response to public comments. The Final EIS will include a chapter or appendix responding to public comments received on the Draft EIS and explaining how they were addressed in the Final EIS. A Notice of Availability of the Final EIS will then be published in the *Federal Register*. Copies of the Final EIS will be distributed to elected officials, regulatory agencies, and interested members of the public. The document will also be available online at the NOAA website: <https://www.fisheries.noaa.gov/national/aquaculture/pacific-ocean-aquafarms-environmental-impact-statement>. EPA and USACE will independently review the Final EIS and decide whether or not to adopt it to support their NEPA requirements for issuance of their respective permits.

The publication of the Notice of Availability for the Final EIS will commence a 30-day “wait period,” before a Record of Decision (ROD) can be signed. The ROD is a separate decision document that concludes the NEPA process for an EIS. The ROD must clearly state what the decision was; identify all alternatives considered; identify the environmentally preferable alternative(s); discuss all factors that were balanced by the agency in making its decision; and state whether all practicable means to avoid or minimize environmental harm from the selected alternative have been adopted and, if not, why not. In addition, a monitoring and enforcement program must be adopted and summarized where applicable for any mitigation (40 CFR 1505.3).

5.2 USACE Permitting Process: Section 10

USACE exercises regulatory jurisdiction over certain activities within waters of the United States. USACE receives its statutory authority from Section 10 of the Rivers and Harbors Act of 1899, which

regulates the construction of any structure in or over any navigable water of the United States or any work affecting the course, location, condition, or capacity of such waters.

An application for a Section 10 Rivers and Harbors Act permit was submitted to USACE on July 10, 2020. USACE subsequently requested additional information be submitted with the application, including an underwater noise analysis, an engineering analysis, and a cultural resources report. The applicant is developing the additional requested materials to submit to USACE, and once USACE has a complete application, USACE will publish a Public Notice, concurrent with publication of the Draft EIS.

The applicant will also prepare and submit a Biological Assessment for the project. USACE will then initiate consultation with NOAA's NMFS pursuant to Section 7 of the Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act. The consultation with NMFS will need to be concluded prior to USACE's permit decision.

USACE will complete a Public Interest Review, which is required per 33 CFR 320.4(a)(1). The Public Interest Review will involve an evaluation of the 20 public interest factors listed in the regulation. A project may have an adverse effect, a beneficial effect, a negligible effect, or no effect on any or all of these factors, and USACE will assign a specific weight to each factor based on its relevance to the project proposal. USACE will document the overall outcome of the evaluation, and the project must be shown to not be contrary to the public interest prior to USACE issuing a permit.

Following publication of the Final EIS, USACE will sign the Record of Decision and issue its permit decision.

5.3 EPA Permitting Process: NPDES

The proposed project is currently in the pre-application stage for the NPDES permit. The applicant will provide EPA with the required information for the NPDES permit application during the EIS process. EPA will review the permit application and once it determines the application to be complete, it will then begin permit development. EPA will also share a preliminary permit to initiate consultation with other agencies. Following the publication of the Final EIS, EPA will prepare a Draft NPDES permit and factsheet. The Draft NPDES permit will be available for public review for 30 days. After the public review period for the Draft NPDES permit, EPA will conclude consultation with other agencies and determine whether to issue the NPDES permit. If EPA determines that issuance of the NPDES permit would not cause unreasonable degradation to water quality; significant adverse changes in the ecosystem; a threat to human health; or a loss of aesthetic, recreation, scientific, or economic values, EPA will issue the NPDES permit. EPA will sign the ROD regardless of the decision to issue the NPDES permit.

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6 Additional Resources

6.1 Project Website Materials

- NOAA, POA EIS project website, including description summary, presentations, and transcripts from Scoping Meetings: <https://www.fisheries.noaa.gov/national/aquaculture/pacific-ocean-aquafarms-environmental-impact-statement>
- FR, NOI for POA EIS: <https://www.federalregister.gov/documents/2020/09/09/2020-19921/pacific-ocean-aquafarms-environmental-impact-statement>
- Comments received on the NOI: <https://regulations.gov/docket/NOAA-NMFS-2020-0117>

6.2 News Articles

Local news outlets published pieces regarding the proposed project after the release of the NOI. The following articles about the project were published in local news outlets. These articles have been read by the project team and provide information to be considered in preparation of the EIS. These articles are attached as Appendix C:

- Pacific Beach Monthly (September 12, 2020)
- San Diego Business Journal (October 2, 2020)
- Earth 8 (September 30, 2020)
- Los Angeles Times (September 30, 2020)
- Undercurrent News (November 3, 2020)

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7 Literature Cited

- AASHTO (American Association of State Highway and Transportation Officials). 2016. *Practitioners Handbook: Responding to Comments on an Environmental Impact Statement*. Accessed November 2020. <https://environment.transportation.org/pdf/programs/ph02-2.pdf>.
- CEQ (Council on Environmental Quality). 1981, “Forty Most Asked Questions Concerning CEQ’s NEPA Regulations.” April 1981, amended 1986. Accessed November 2020. <https://www.energy.gov/sites/prod/files/2018/06/f53/G-CEQ-40Questions.pdf>.
- NOAA (National Oceanic and Atmospheric Administration). 2011. National Oceanic and Atmospheric Administration Marine Aquaculture Policy. June 2011.
- NOAA. 2017. Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities –Companion Manual for NOAA Administrative Order 216-6A. Effective January 13, 2017. <https://www.nepa.noaa.gov/docs/NOAA-NAO-216-6A-Companion-Manual-03012018.pdf>.

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Appendix A

Notice of Intent

Appendix B

Scoping Meetings Materials

Appendix C

News Articles

via GoToMeeting, the meeting will continue via Google Meet.

By Google Meet on Sept. 25, 2020, 9 a.m., follow this link:

<https://calendar.google.com/calendar/r/eventedit/copy/NDdzYXU5OWdrMDZsZzJnNmJlMW1pczVlbzQgbWlnZWVsYXlyOUBt/bWlnZWVsYXlyOUBnbWVpbC5jb20?pli=1&sf=true>

FOR FURTHER INFORMATION CONTACT:

Miguel Rolón, Executive Director, Caribbean Fishery Management Council, 270 Muñoz Rivera Avenue, Suite 401, San Juan, Puerto Rico 00918–1903, telephone: (787) 398–3717.

SUPPLEMENTARY INFORMATION: The following items included in the tentative agenda will be discussed:

Tentative Agenda

- 9 a.m.–12 p.m.—Five-Year Strategic Plan—Dr. Michelle Duval
- 12 p.m.–1 p.m.—Lunch Break
- 1 p.m.–2:30 p.m.—Executive Order on Promoting American Seafood Competitiveness and Economic Growth (May 7, 2020)
- 2:30 p.m.–2:45 p.m.—Other Business
- 2:45 p.m.–3 p.m.—5-minutes Public Comments/Presentations

The CFMC is interested in hearing feedback on priorities for its Five-Year Strategic Plan (Sept. 25, 2020, 9 a.m.). The list of topics the Council is considering in developing the Strategic Plan, and on which the Council would like feedback include: (1) Resource Health: Invasive species, climate change, erosion & sedimentation, coastal development, natural disasters, habitat loss & destruction, enforcement, pollution, bycatch & discard mortality, abundance of baitfish and forage species, lack of biological or ecosystem information, overfishing, and illegal fishing; (2) Social, Cultural, Economic Concerns: closed seasons and stock assessment, valuation and assessment of area closures, increasing costs, competition with foreign fishermen, recreational & commercial user conflicts, displacement of fishing communities, and ability to support a family, illegal/unlicensed commercial fishers, lack of new entrants into fishery, lack of social & economic data, excess gear, market instability, infrastructure needs (landing sites), inadequate enforcement, excess fishing capacity; (3) Management & Operational Issues: accurate/timely commercial and recreational catch data, enforcement of existing regulations, fisher involvement in data collection, regulatory consistency (federal & territorial), clear management objectives, bycatch/regulatory discards, gear limits, cost-

effective data collection technology, balancing commercial & recreational concerns, incorporation of climate change into management, Federal permit program, and territorial licensing requirements; and (4) Communication and Outreach: frequency of communication (alerts/reminders of scoping meetings and council meetings), variety of tools used in communication (e.g. email, website, social media, paper, text message alerts), educational resources (e.g. science & stock assessment, business planning, restaurant choices, etc.), improving general public awareness of fisheries issues, regular in-person outreach workshops on important topics, and clarity and simplicity of presentations.

The order of business may be adjusted as necessary to accommodate the completion of agenda items. Other than the start time, interested parties should be aware that discussions may start earlier or later than indicated, at the discretion of the Chair.

Special Accommodations

Simultaneous interpretation will be provided. To receive interpretation in Spanish you can dial into the meeting as follows:

US/Canada: call +1–888–947–3988, when system answers, enter 1*999996#. Para interpretación en inglés marcar: US/Canada: call +1–888–947–3988, cuando el sistema conteste, entrar el siguiente número 2*999996#.

For any additional information on this public virtual meeting, please contact Diana Martino, Caribbean Fishery Management Council, 270 Muñoz Rivera Avenue, Suite 401, San Juan, Puerto Rico, 00918–1903, telephone: (787) 226–8849.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: September 3, 2020.

Tracey L. Thompson,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2020–19909 Filed 9–8–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA402]

Pacific Ocean AquaFarms Environmental Impact Statement

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of intent to prepare an Environmental Impact Statement; request for comments.

SUMMARY: NOAA is publishing this Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for the proposed development of a commercial-scale finfish aquaculture facility to be located in Federal waters off the coast of southern California. The proposed facility would require two Federal permits: A Section 402 Clean Water Act (CWA) permit, and a Section 10 Rivers and Harbor Act (RHA) permit, over which the U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (USACE), respectively, have authority. The EPA and USACE will act as cooperating agencies for purposes of this EIS. This NOI initiates the public scoping process for the EIS during which time interested parties are invited to provide comments on the proposed project, its potential to effect the human environment, means for avoiding, minimizing, or mitigating those effects, the preliminary reasonable range of alternatives, and any additional reasonable alternatives that should be considered.

DATES: Written comments on the scope of the analysis to be considered in the draft EIS must be submitted no later than October 26, 2020.

Two public meetings (in webinar format) are scheduled for October 14, 2020 at 3 p.m.–5 p.m. Pacific Daylight Time and October 16, 2020 at 1 p.m.–3 p.m. Pacific Daylight Time.

ADDRESSES: You may submit comments on this document, identified by NOAA–NMFS–2020–0117, by using the Federal e-Rulemaking Portal. Go to www.regulations.gov and enter NOAA–NMFS–2020–0117. Click the “Comment Now!” icon, complete the required fields, and enter or attach your comments.

Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NOAA. All comments received are a part of the public record and will generally be posted for public viewing on www.regulations.gov without change. All personal identifying information (e.g., name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NOAA will accept anonymous comments (enter “N/A” in the required fields if you wish to remain anonymous).

The webinar link for October 14 and 16, 2020, is <https://bit.ly/34sj1UT>. You

may also participate by phone toll-free at 844-621-3956 with access code: 146 738 1449.

FOR FURTHER INFORMATION CONTACT:

Steve Leathery, National NEPA Coordinator, NMFS; phone: 301-427-8013; email: poa.eis@noaa.gov; or website: <https://www.fisheries.noaa.gov/national/aquaculture/pacific-ocean-aquafarms-environmental-impact-statement>.

SUPPLEMENTARY INFORMATION: As required by the National Environmental Policy Act (NEPA), the EIS will analyze the environmental consequences of implementing each of the alternatives, if carried forward for full review following public scoping, by assessing the direct, indirect, and cumulative effects of each alternative on the human environment. This EIS will be prepared in accordance with the requirements of NEPA and implementing regulations published by the Council on Environmental Quality in 1978, and amended in 1986 and 2005 (40 CFR parts 1500-1508).

Background

Pacific Ocean AquaFarms (POA), the applicant, proposes to construct, operate, and maintain an offshore marine finfish aquaculture operation comprised of floating surface pens in Federal waters located approximately 4 nautical miles (7.4 kilometers) off the coast of San Diego, California. To identify a site for the proposed action, POA sought spatial analysis expertise from the NOAA National Ocean Service (NOS) to identify potential offshore locations that would be technically and commercially feasible while minimizing environmental effects. The technical and commercial parameters for the proposed project were established by the applicant to identify potential sites. Those parameters included, but were not limited to the following:

- Within 35 nautical miles (65 kilometers) of suitable port(s);
- *Minimum and Maximum Depth to Seafloor*: ≥ 100 feet (30 meters) and < 495 feet (150 meters);
- *Suitability for Species*: California yellowtail (*Seriola dorsalis*)—(other native or naturalized species may also be cultivated that have the same requirements for temperature, space, and other fixed parameters); and
- *Gear Type*: Submersible net pen.

The NOS siting analysis included review of other engineering, development, and environmental constraints, including but not limited to presence of submarine cables, oil and gas infrastructure or leases, squid and trawl fisheries, wastewater treatment discharge structures, shipping lanes and

high vessel traffic areas, marine protected areas, deep sea corals and hard bottom habitat, and marine mammal migration routes. The siting analysis included a review by the U.S. Department of Defense (DoD) to ensure that potential sites avoided areas of DoD operations in Federal waters, which are extensive offshore of southern California.

POA and NOS identified a site that best meets the technical, commercial, and environmental parameters within an area located approximately 4 nautical miles (7.4 kilometers) offshore of San Diego, California. Following initial site identification, POA coordinated with local U.S. Navy commands and organizational units and received informal approval from the DoD.

NOAA has directives to preserve ocean sustainability and facilitate domestic aquaculture in the U.S. consistent with the National Aquaculture Act of 1980, the NOAA Marine Aquaculture Policy (2011), and Presidential Executive Order 13921—“Promoting American Seafood Competitiveness and Economic Growth” (May 7, 2020) through, among other things, providing technical expertise and supporting environmental review and permitting of commercial scale aquaculture proposals. NOAA may also be called upon to engage in consultations, permitting, and authorization for such projects under the Endangered Species Act, the Magnuson-Stevens Fishery Management and Conservation Act, and the Marine Mammal Protection Act.

Purpose and Need

The proposed Federal action includes decisions on two permits under the respective authorities of the EPA and the USACE as required to site, install, and operate the proposed aquaculture facility. The EPA’s proposed Federal action is the issuance, if appropriate, of a National Pollutant Discharge Elimination System (NPDES) permit, which would authorize effluent discharge from an aquatic animal production facility because such discharges are considered a point source discharge into waters of the U.S. The USACE’s proposed Federal action is the issuance, if appropriate, of a permit pursuant to Section 10 of the RHA that authorizes structures and work in navigable waters of the U.S.

Agency Purpose and Need

The EPA has authority to issue NPDES permits pursuant to Section 402 of the CWA and regulations at 40 CFR part 125, subpart M. Under Section 402, all point sources that discharge directly

into U.S. waters are required to obtain an NPDES permit from the EPA. Each NPDES permit specifies effluent limitations for particular pollutants, as well as monitoring and reporting requirements for the proposed discharge. POA intends to apply for a NPDES permit from the EPA. Because the POA facility is proposed in Federal waters, it requires a NPDES permit to operate and the EPA will evaluate POA’s permit application pursuant to the CWA and implementing regulations. The NPDES permit, if issued, would authorize POA to discharge pollutants into waters of the U.S. The EPA has a statutory responsibility to respond to applicant requests for NPDES permits. EPA is required to review applications and, if appropriate, issue NPDES permits under the CWA.

The USACE has authority to issue permits pursuant to Section 10 of the RHA and regulations at 33 CFR parts 320-332. Prior authorization (a permit) is required for installation of structures and work in, over, or under navigable waters of the U.S. This will require evaluation of impacts to navigation and public interests. The USACE’s proposed Federal action is a direct outcome of POA’s permit application to establish and operate a commercial-scale finfish facility in marine waters off the southern California coast; thus, the purpose of USACE’s action is to evaluate POA’s application pursuant to the RHA. The USACE has a statutory responsibility to respond to applicant requests for Section 10 permits. USACE is required to review applications and, if appropriate, issue permits under Section 10 of the RHA.

Applicant Purpose and Need

The applicant’s stated purpose of the proposed project is to construct and operate a new commercial-scale, offshore finfish aquaculture facility in the U.S. Exclusive Economic Zone (EEZ) off the southern California coast.

The United Nations estimates that the world population will reach approximately 9.7 billion people by the year 2050, and approximately 11.0 billion people by the year 2100. With this approximate 26 to 43 percent growth in population, the demand for food (and protein) will also grow proportionally. Terrestrial meat production cannot support this demand without significant land use and environmental consequences.

The U.S. has the world’s largest EEZ including a wide range of habitats and farmable species with the resultant potential to support large stocks of wild fish species and extensive offshore aquaculture operations to provide

additional protein sources for the U.S. and exports. However, many wild fisheries within the EEZ are at, or near, maximum sustainable yield and the U.S. is one of the world's largest importers of fish and fishery products. By weight, greater than 85 percent of the seafood Americans eat comes from abroad, over half of it from aquaculture. The U.S. is ranked 17th in the world for aquaculture production as of 2018, contributing to an annual \$16.8 billion seafood industry trade deficit.

By operating in U.S. waters, POA would be under U.S. regulatory oversight. Data generated and collected from the aquaculture facility could provide multiple benefits to government agencies, universities, fisheries managers, and the scientific community. Such a commercial-scale, offshore aquaculture facility would provide an opportunity for study, new technology development, and transferable knowledge and would be the first of its kind in California waters.

Preliminary Reasonable Range of Alternatives for Consideration

NOAA has identified a proposed action and preliminary alternatives for potential consideration in the draft EIS. Both a no-action and several preliminary action alternatives are presented for consideration for public review and comment. NOAA is also soliciting additional alternatives for consideration.

No-Action Alternative

Under the no-action alternative, the EPA and USACE would not issue permits and the applicant would not be authorized to construct or operate a finfish aquaculture facility offshore of southern California; and the project's direct, indirect, and cumulative impacts would not occur. Under the no-action alternative, the proposed project would not take place, however the resulting environmental effects of no action would be compared with the effects of allowing the proposed project or an alternate project to go forward.

Reasonable Range of Action Alternatives

Action alternatives describe potential alternative approaches to achieve the defined purpose and need of the proposed action. NOAA is considering the following action alternatives at this time: The San Diego Site Alternative (applicant's proposed action), Long Beach Site Alternative, and Half-Scale Alternative at either location.

San Diego Site Alternative

POA proposes to construct and operate a new commercial-scale, offshore source of finfish in the U.S. EEZ approximately 4 nautical miles (7.4 kilometers) off the coast of San Diego. An area of approximately 1,000 acres (4 square kilometers) (exact area to be determined based on engineering design) is sited as suitable for potential use; of this, approximately 717 acres (2.9 square kilometers) would be occupied by the project, including a total of 28 submersible pens, anchors and mooring lines, and surface marker buoys. The total area may change relative to the exact location of the pen grids, the relative depth of the pens, and the final engineering requirements that would delineate the location, number, and depth of mooring lines. Initial production is projected to yield 2.2 million pounds (1,000 metric tons) annually growing up to 11 million pounds (5,000 metric tons) after environmental monitoring confirms that each successive scale of expansion has not resulted in any substantial environmental or space-use impacts. California yellowtail (*Seriola dorsalis*) would be the initial cultivated species, as it is native to California waters. Other local species such as white seabass (*Atractoscion nobilis*), may be grown in addition to or in lieu of California yellowtail when the project has become operational under Federal and state permit requirements.

The project would utilize established and tested pen and mooring technologies that are able to withstand storm and rough sea conditions. The POA pen culture system would be constructed of high density polyethylene pipe with a suspended copper-alloy mesh to control for fouling organisms and inhibit parasitic infestations. The pens would have an approximately 98.4-foot (30-meter) diameter and 46-foot (14-meter) depth. The mooring system would be designed with 2 pen grids, each containing 2 rows of 7 pens (28 pens total) with grid cell dimensions of 328 feet by 328 feet (100 meters by 100 meters). The mooring system would be made of nylon ropes, galvanized steel shackles, and buoys (surface and subsurface) located at nodes in the grid. Steel chains and anchors or concrete blocks would secure the system to the ocean floor.

Once all applicable permits are obtained, construction of the aquaculture facilities will take approximately 1 year. Stocking of the cages would then occur sometime within the following year with the first commercial harvest occurring 18 to 24

months later. POA would scale up production after initial yields are reached and subject to environmental monitoring. The anticipated maximum production up to 11 million pounds (5,000 metric tons) per year would occur approximately 3 to 6 years after the project is constructed.

Once operational, the aquaculture facility would follow Best Aquaculture Practices set forth by the Aquaculture Stewardship Council (in collaboration with the World Wildlife Foundation) and the Global Aquaculture Alliance. The applicant has proposed to only work with feed suppliers and processing facilities that are Best Aquaculture Practices certified.

Dedicated vessels would haul feed, personnel, and harvested fish to and from the aquaculture facility daily from the Port of San Diego. The vessels would include an offshore feeding system, harvest vessel, multiuse vessel, and a personnel transport vessel. A dedicated harvest vessel would visit the aquaculture facility site at least three times per week at full production to remove fish from the net pens. Actual frequency of use would depend on time of year and harvesting schedule as determined by fish growth and aquaculture facility need.

Landside facilities would include existing facilities and infrastructure at the Port of San Diego. Pier or wharf access would be needed for construction staging and preparation and loading and unloading of feed and harvested fish; occasional access would also be needed to transport juvenile fish to the aquaculture facility, and to accommodate vessel docking or mooring capacity for multiple vessels of various lengths.

Long Beach Site Alternative

This action alternative would construct and operate the POA aquaculture grid arrays offshore at approximately 4 nautical miles (7.4 kilometers) southwest of Sunset Beach in Long Beach. The Long Beach site has not been analyzed by the DoD to receive informal clearance. However, the analysis conducted by NOS included review of DoD spatial data regarding operating areas, ocean disposal areas, unexploded ordnances, danger zones, and restricted areas and adequate surface and seafloor space was identified that avoided these areas. Onshore facilities needed for this alternative would be similar to those identified for the proposed action, but would be expected to be located within existing developed areas at the Port of Long Beach or the Port of Los Angeles. Aside from the different site location,

this alternative would be of similar size at full build-out, would use the same net pen design, anchoring design, phased development, and operational plans as the San Diego Site Alternative.

Half-Scale Alternative

This action alternative would consider an initial projected production of 2.2 million pounds (1,000 metric tons) and a final production of 5.5 million pounds (2,500 metric tons) from 3 to 6 years after the project is constructed and operated. This production level and project spatial extent would be approximately half that described in the San Diego Site Alternative. The anchoring and mooring system for a single submerged grid would use the same engineering design as the full-scale San Diego Site Alternative. Only 1 pen grid containing 2 rows of 7 pens (14 pens total) would be installed. The half-scale alternative would be analyzed for both the San Diego and Long Beach Alternative sites.

Action Alternatives Summary

Currently, two location alternatives and a half-scale alternative are being considered for detailed analysis in the EIS. The two location alternatives in southern California—San Diego and Long Beach—are considered for the off-shore finfish aquaculture site and the landside facilities that would be used to receive, process, and distribute the harvested fish.

Dated: September 2, 2020.

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

[FR Doc. 2020–19921 Filed 9–8–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA445]

New England Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; public meeting.

SUMMARY: The New England Fishery Management Council (Council) is scheduling a public meeting of its Scallop Committee via webinar to consider actions affecting New England fisheries in the exclusive economic zone (EEZ). Recommendations from this

group will be brought to the full Council for formal consideration and action, if appropriate.

DATES: This meeting will be held on Friday, September 25, 2020 at 8:30 a.m. via webinar.

ADDRESSES: All meeting participants and interested parties can register to join the webinar at <https://attendee.gotowebinar.com/register/3170442187257265423>.

Council address: New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950.

FOR FURTHER INFORMATION CONTACT: Thomas A. Nies, Executive Director, New England Fishery Management Council; telephone: (978) 465–0492.

SUPPLEMENTARY INFORMATION:

Agenda

The Scallop Committee will discuss Amendment 21, specifically, review of public comments and select final preferred alternatives. Amendment 21 includes measures related to: (1) Management of the Northern Gulf of Maine (NGOM) Management Area, (2) Limited Access General Category (LAGC) individual fishing quota (IFQ) possession limits, and (3) ability of Limited Access vessels with LAGC IFQ to transfer quota to LAGC IFQ only vessels. The committee will also discuss 2021/22 Specifications: Discuss the timing and outlook for 2020 surveys and 2021/22 specifications process. They also plan to review 2021 Priorities: Discuss and rank potential 2021 scallop work priorities.

Other business may be discussed, as necessary.

Although non-emergency issues not contained in this agenda may come before this group for discussion, those issues may not be the subject of formal action during these meetings. Action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Thomas A. Nies, Executive Director, at (978) 465–0492, at least 5 days prior to the meeting date. Consistent with 16 U.S.C. 1852, a copy of the recording is available upon request.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: September 3, 2020.

Tracey L. Thompson,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2020–19911 Filed 9–8–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF DEFENSE

Department of the Air Force

Air Force Scientific Advisory Board; Notice of Federal Advisory Committee Meeting

AGENCY: Air Force Scientific Advisory Board, Department of the Air Force, Department of Defense.

ACTION: Notice of federal advisory committee meeting.

SUMMARY: The Department of Defense (DoD) is publishing this notice to announce that the following Federal Advisory Committee meeting of the U.S. Air Force Scientific Advisory Board will take place.

DATES: Open to the public virtually. September 15, 2020 from 3:00 p.m. to 4:10 p.m. EDT.

ADDRESSES: The virtual meeting can be accessed at the following link: <https://us02web.zoom.us/j/85940304005?pwd=SHR2cDg1SlZQWWtIVjNGKzVUUGdNUT09>.

Meeting ID: 859 4030 4005

Passcode: 421833

Find your local number: <https://us02web.zoom.us/j/85940304005>

FOR FURTHER INFORMATION CONTACT: Lt Col Elizabeth Sorrells, (321) 480–1009 (Voice), elizabeth.d.sorrells.mil@mail.mil (Email). Mailing address is 1500 West Perimeter Road, Ste. #3300, Joint Base Andrews, MD 20762.

Website: <https://www.scientificadvisoryboard.af.mil/>. The most up-to-date changes to the meeting agenda can be found on the website.

SUPPLEMENTARY INFORMATION: This meeting is being held under the provisions of the Federal Advisory Committee Act (FACA) of 1972 (5 U.S.C., Appendix, as amended), the Government in the Sunshine Act of 1976 (5 U.S.C. 552b, as amended), and 41 CFR 102–3.140 and 102–3.150. Due to circumstances beyond the control of the Department of Defense and the Designated Federal Officer for the U.S. Air Force Scientific Advisory Board, the U.S. Air Force Scientific Advisory Board was unable to provide public notification required by 41 CFR 102–3.150(a) concerning its September 15, 2020 meeting. Accordingly, the



Pacific Ocean AquaFarms Scoping Meeting

Our meeting will begin shortly...



Agenda

- Introduction of Team
- Housekeeping Items
- Scoping Meeting Purpose
- Project Overview
- Process Overview
 - U.S. Army Corps of Engineers
 - Environmental Protection Agency
 - National Oceanic and Atmospheric Administration
- Q&A / Comment Session
- Wrap Up / Thank you



Introduction of Team

Federal Oversight:

- National Oceanic and Atmospheric Administration (NOAA)
 - Steve Leathery, Cristi Reid, Phaedra Doukakis & Scott Farley – NMFS NEPA Team
 - Diane Windham – NMFS
 - James Morris - National Ocean Service
- U.S. Army Corps of Engineers
 - Theresa Stevens
- U.S. Environmental Protection Agency
 - Peter Kozelka
 - Stephanie Gordon

Project Applicant:

- Hubbs-Seaworld Research Institute & Pacific Ocean AquaFarms
 - Don Kent



Meeting Recordings & More Info

Recording of these scoping meetings and more project information found at:

<https://www.fisheries.noaa.gov/national/aquaculture/pacific-ocean-aquafarms-environmental-impact-statement>



Scoping Meeting Purpose

- The purpose of the scoping meeting(s) is to facilitate public engagement regarding the scope of the Environmental Impact Statement (EIS) for the Pacific Ocean AquaFarms project as part of scoping.
- The purpose of scoping is to:
 - a) define the alternatives that will be analyzed;
 - b) identify the concerns of the other entities, including other NOAA Line or Staff Offices; Federal, State, and local agencies; Tribal governments; nongovernmental organizations; and individuals; and invite participation from affected entities;
 - c) identify the likely geographic area of potential environmental effects;
 - d) identify the environmental issues that are pertinent to the proposed action;
 - e) identify and eliminate those environmental issues that are not relevant to the proposed action; and
 - f) determine if the proposed action will trigger the compliance requirements of other environmental statutes, regulations, or Executive Orders.

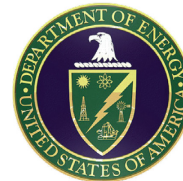
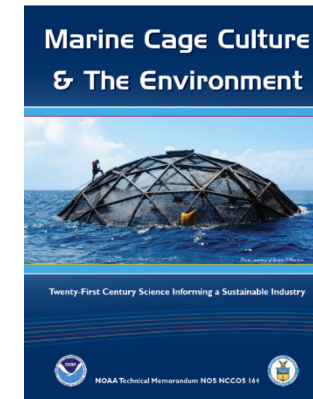
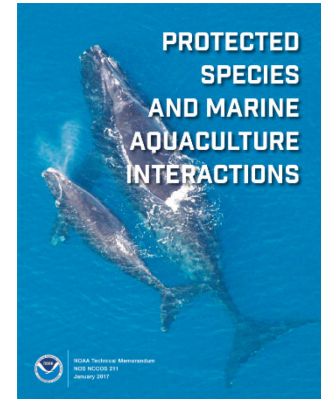
NOAA Spatial and Environmental Science Support for Offshore Aquaculture

**James A. Morris, Jr., Lisa C. Wickliffe, Jon
Jossart, Jonathan MacKay, and Kenneth L.
Riley**

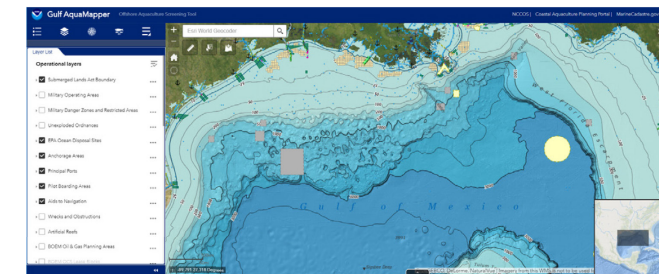
NOAA/NOS/NCCOS/Marine Spatial Ecology Division



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SCIENCE SERVING COASTAL COMMUNITIES

Coastal Manager Support

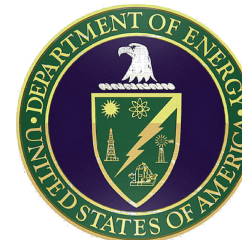
We have developed a blended research and services portfolio. Services inform science; science inform services.

Types of support

- Spatial planning
- Environmental modeling
- Environmental science advice
- Engineering review

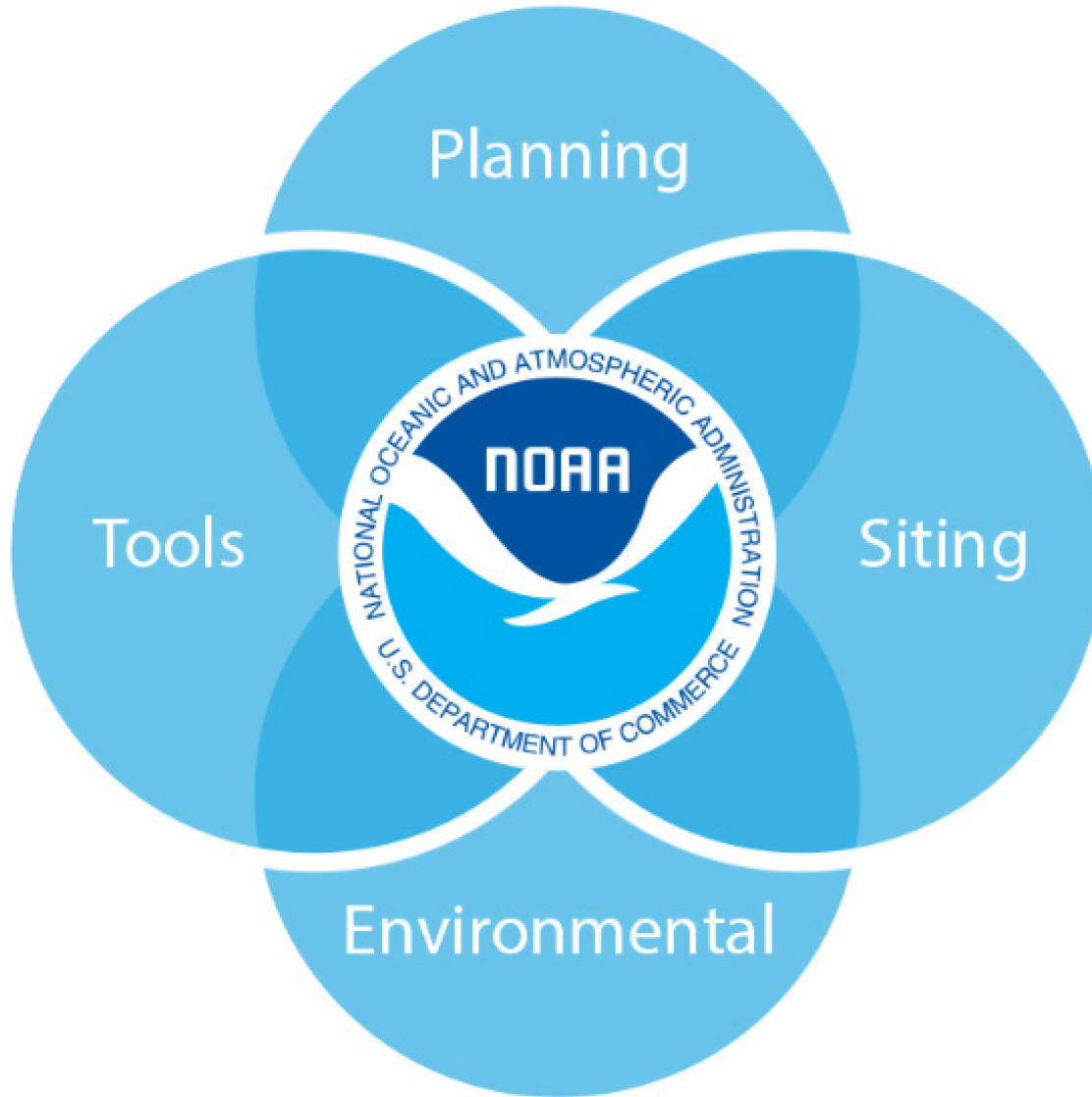


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The Ocean Service AquaPortfolio



California Spatial Data

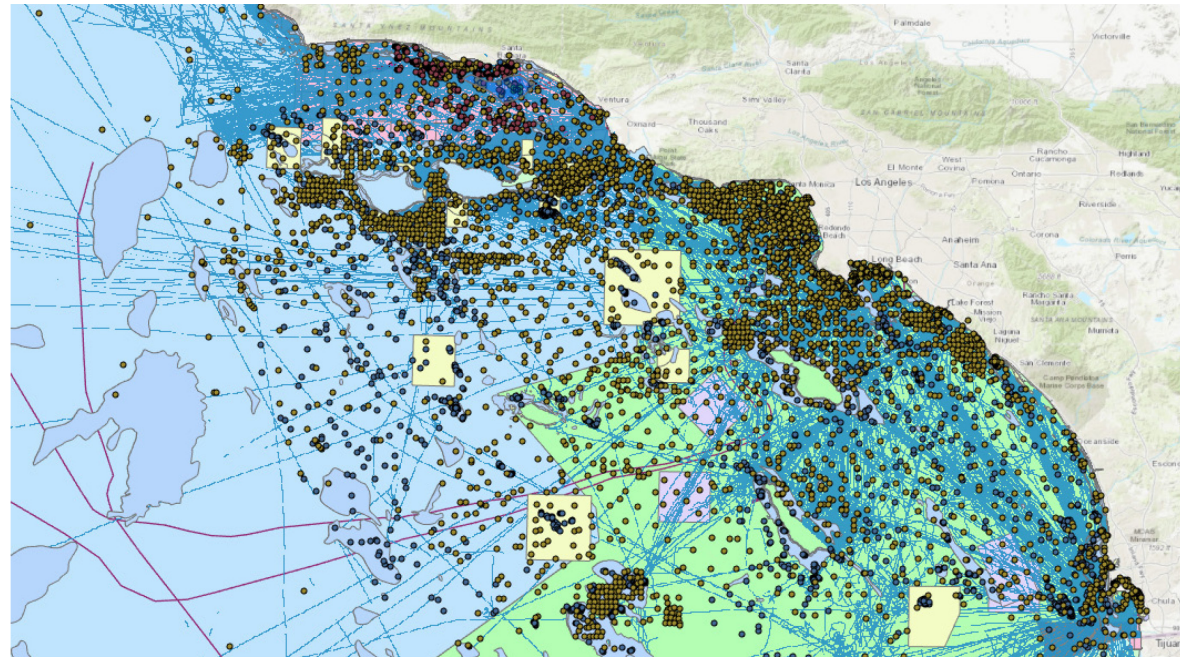
Data sources = 12 State and Federal Agencies and large number of public/private sources

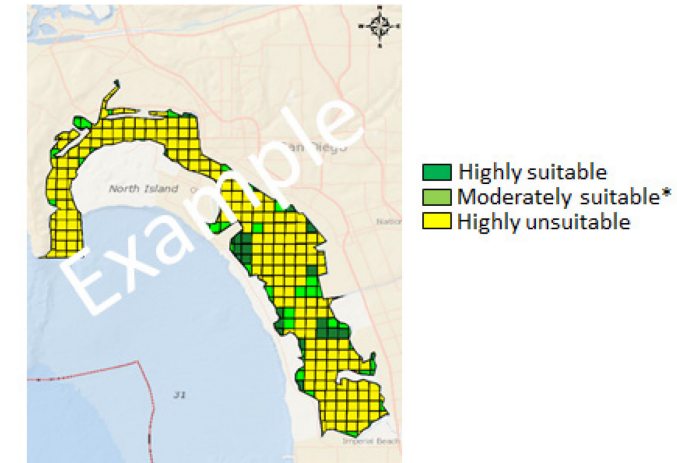
Total layers = 550,176

Size = 476 GB

Data categories

- Biophysical/ Oceanographic
- Government boundaries
- Industry
- Military
- Navigation
- Social and Culture
- Natural Resources





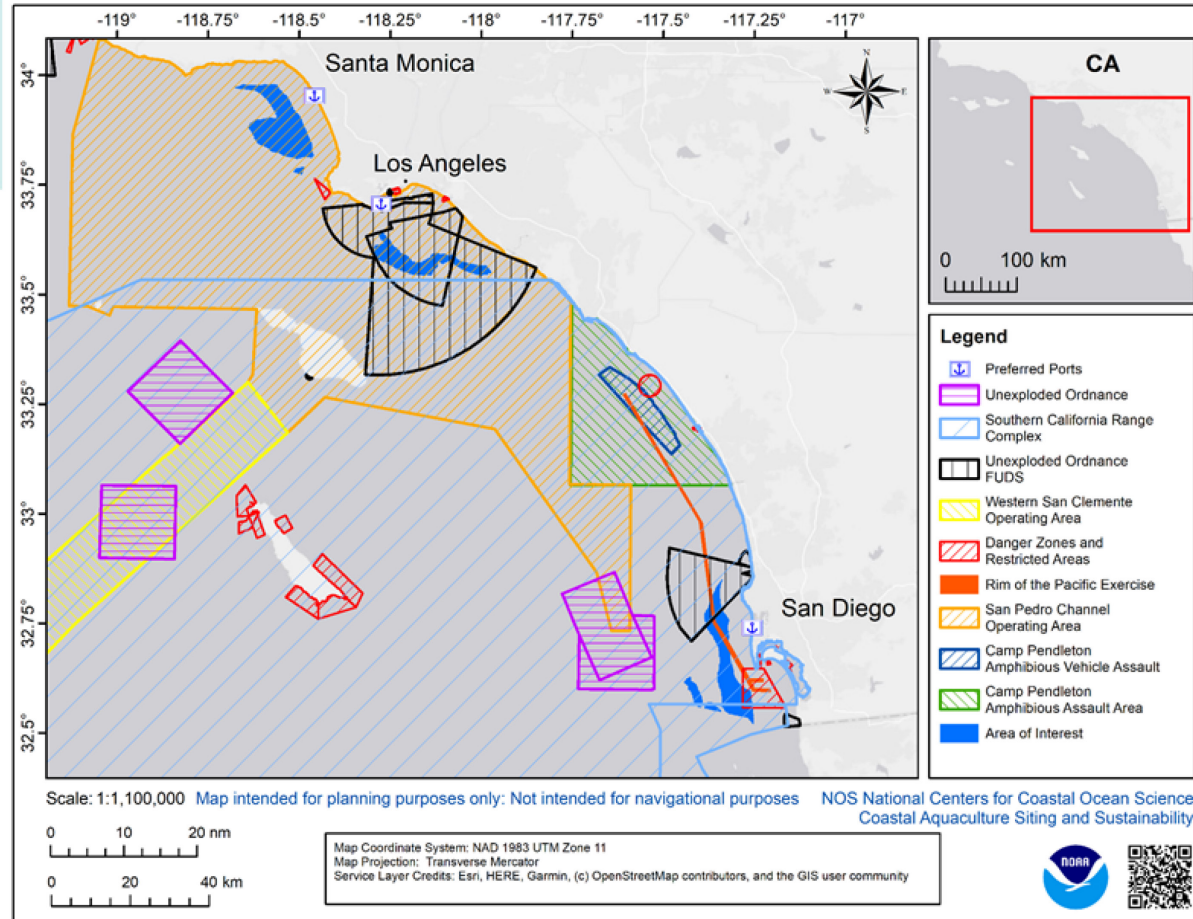
- A cell receives a score of 0 if a submarine cable is present, and a score of 1 if absent

Project Requirements

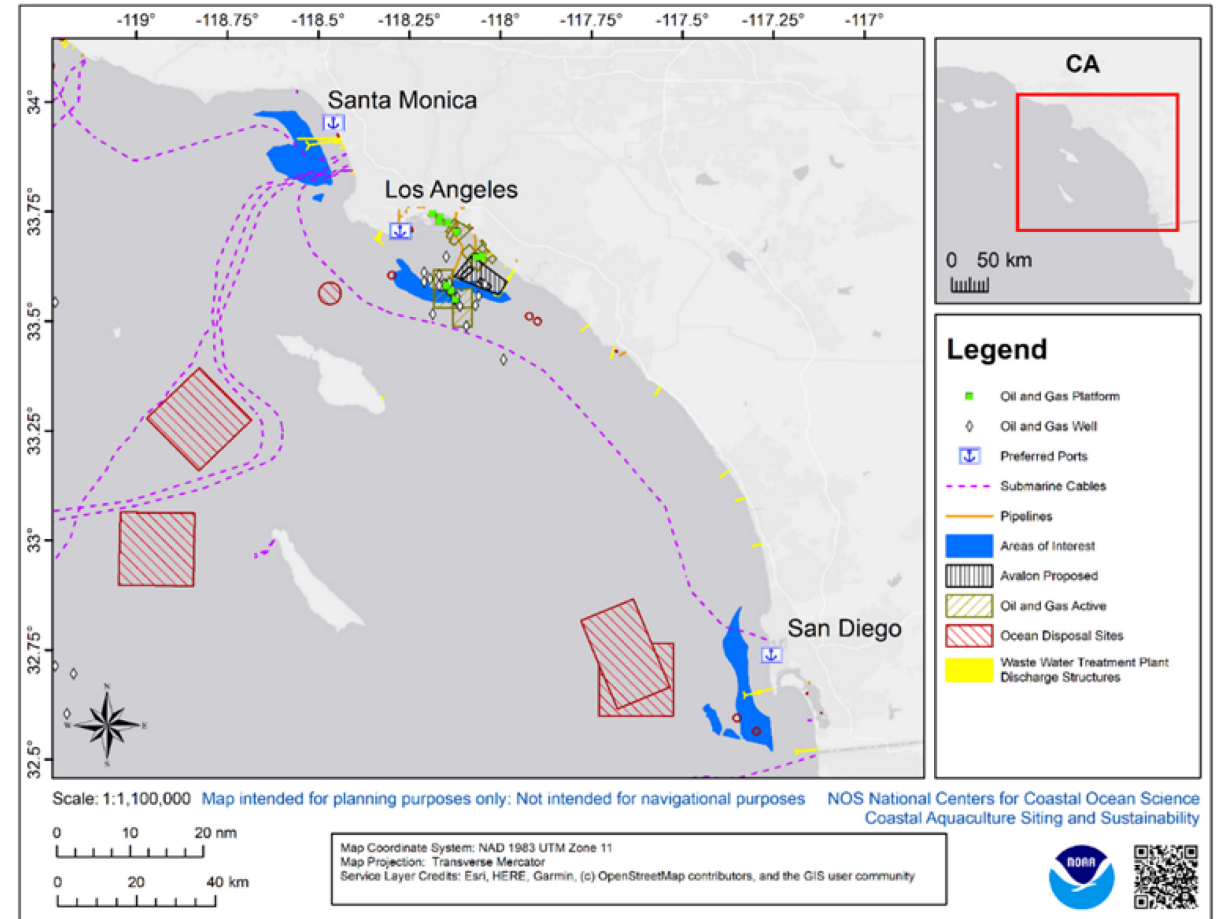
Parameter	Project requirement
Preferred port(s)	Santa Monica, Los Angeles, San Diego
Maximum distance from port	30 nm (55.5 km)
Species to be farmed	California yellowtail (<i>Seriola dorsalis</i>)
Gear type to be used	Submerged net pens
Acceptable depth range for farm	50 to 150 m
Minimum Farm Size	~370 acres (~ 150 ha)

The Ocean Neighborhood

National Security



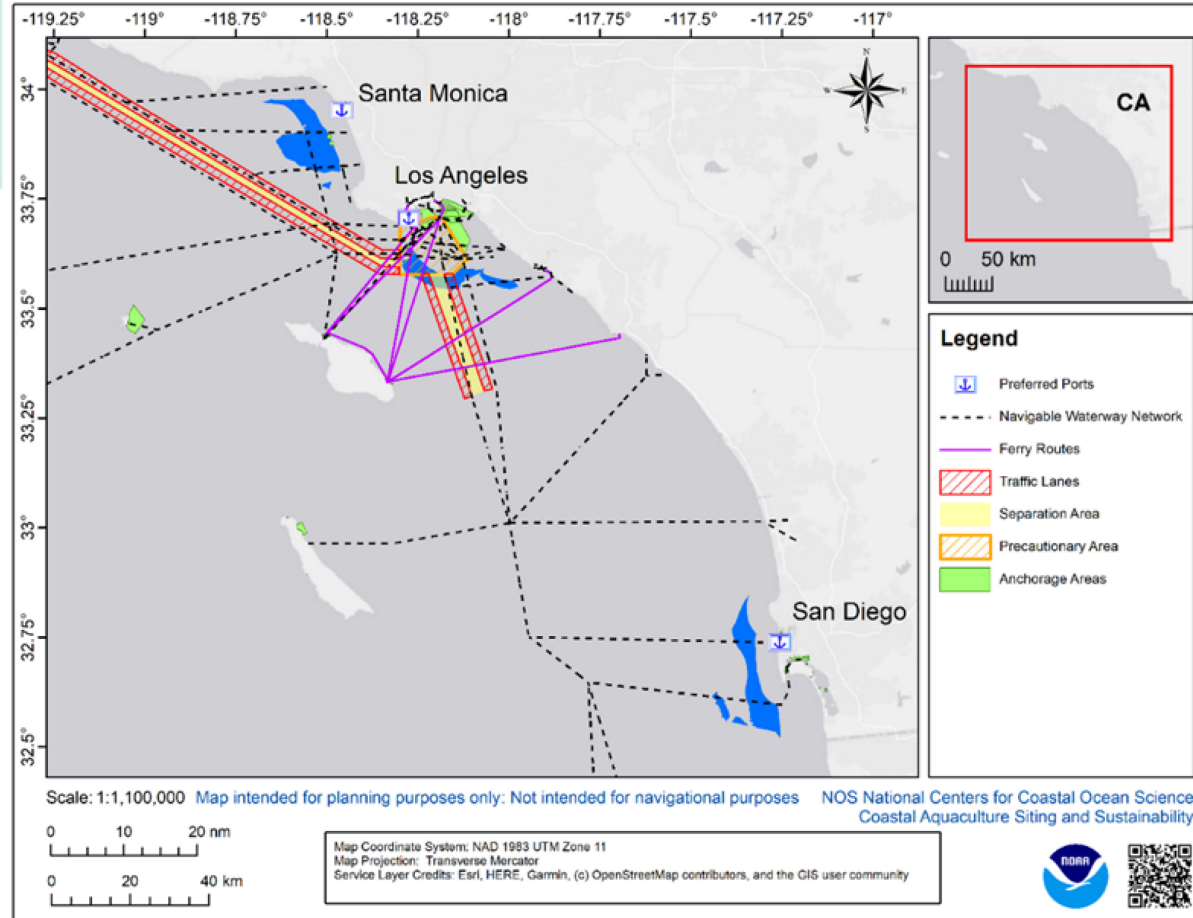
Industry



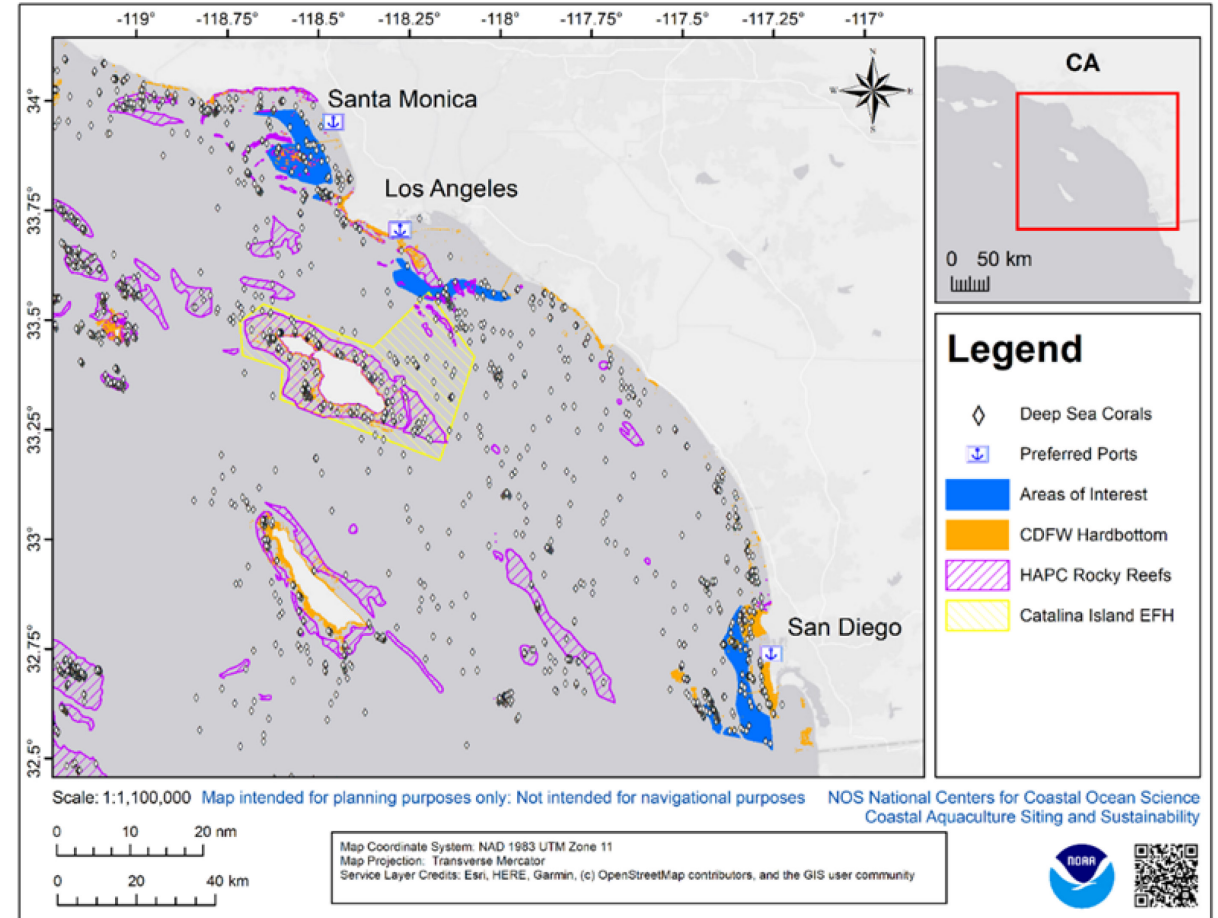
Preliminary draft subject to change based on further analysis and public comments.

The Ocean Neighborhood

Navigation



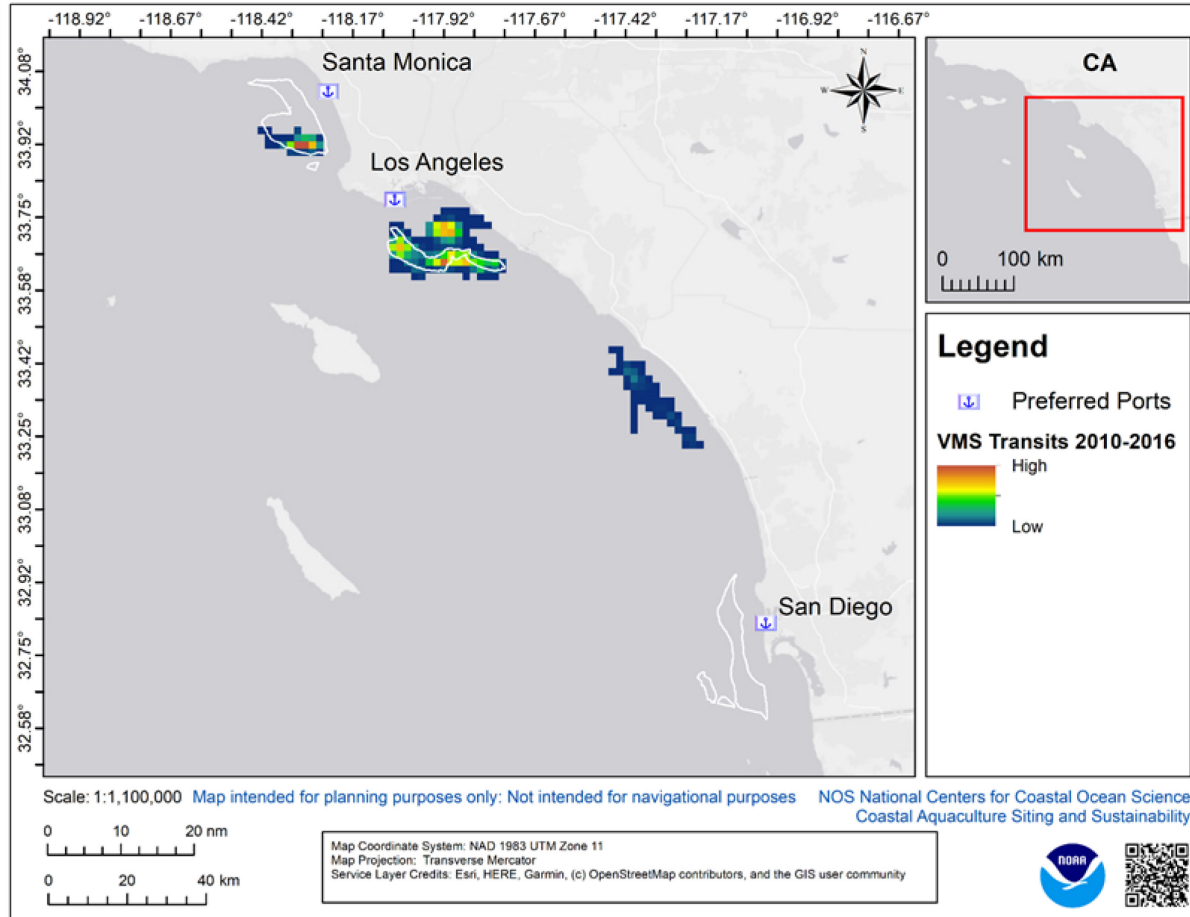
Natural Resources



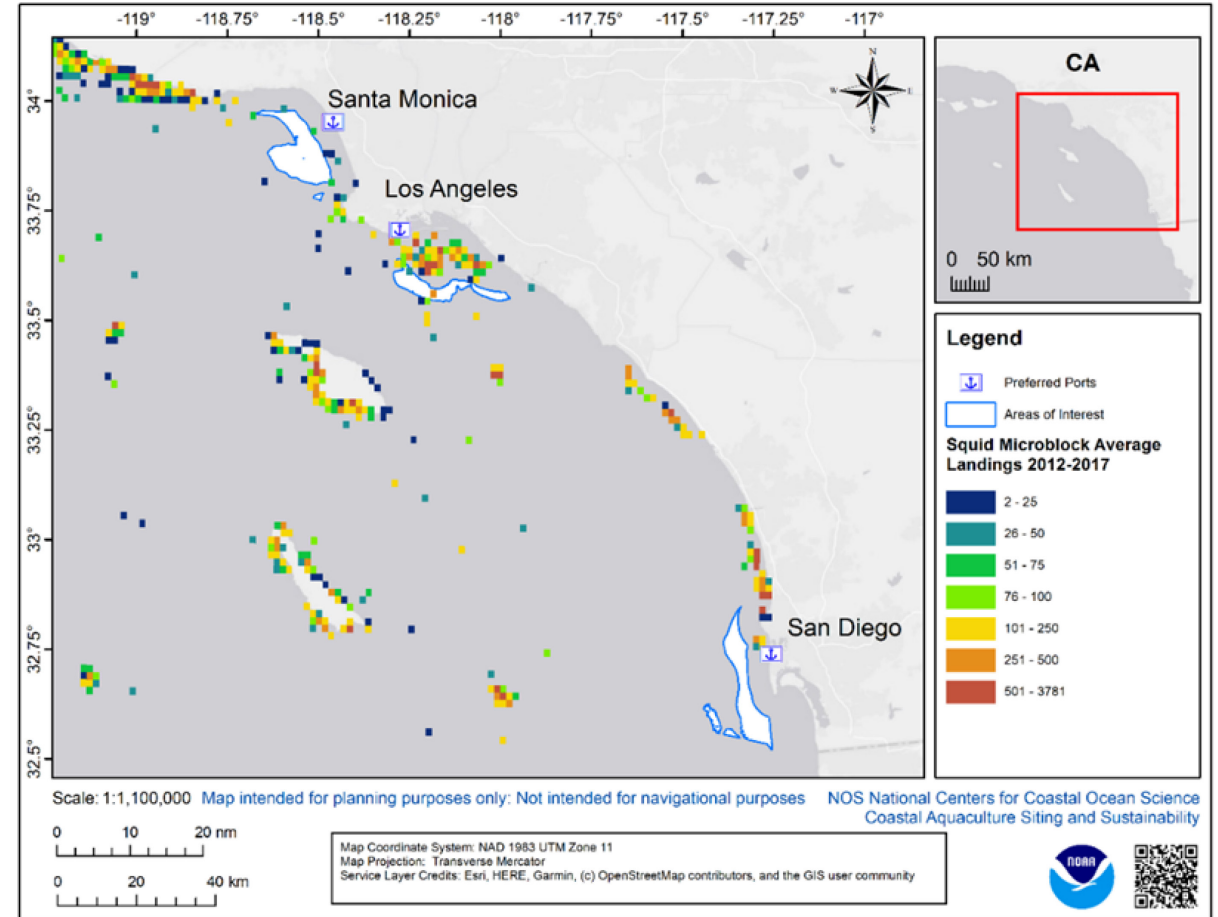
Preliminary draft subject to change based on further analysis and public comments.

The Ocean Neighborhood

Commercial Fishing - VMS Trawl



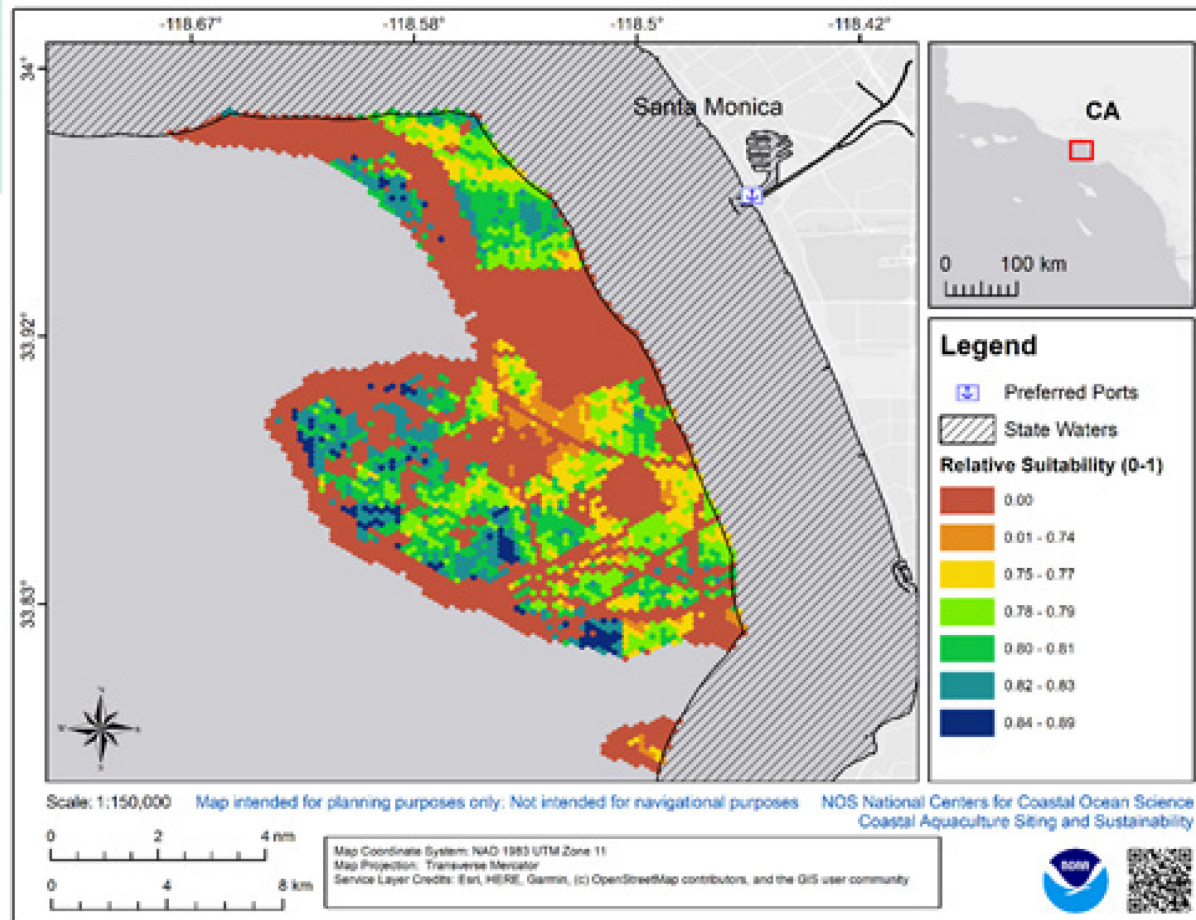
Squid landing



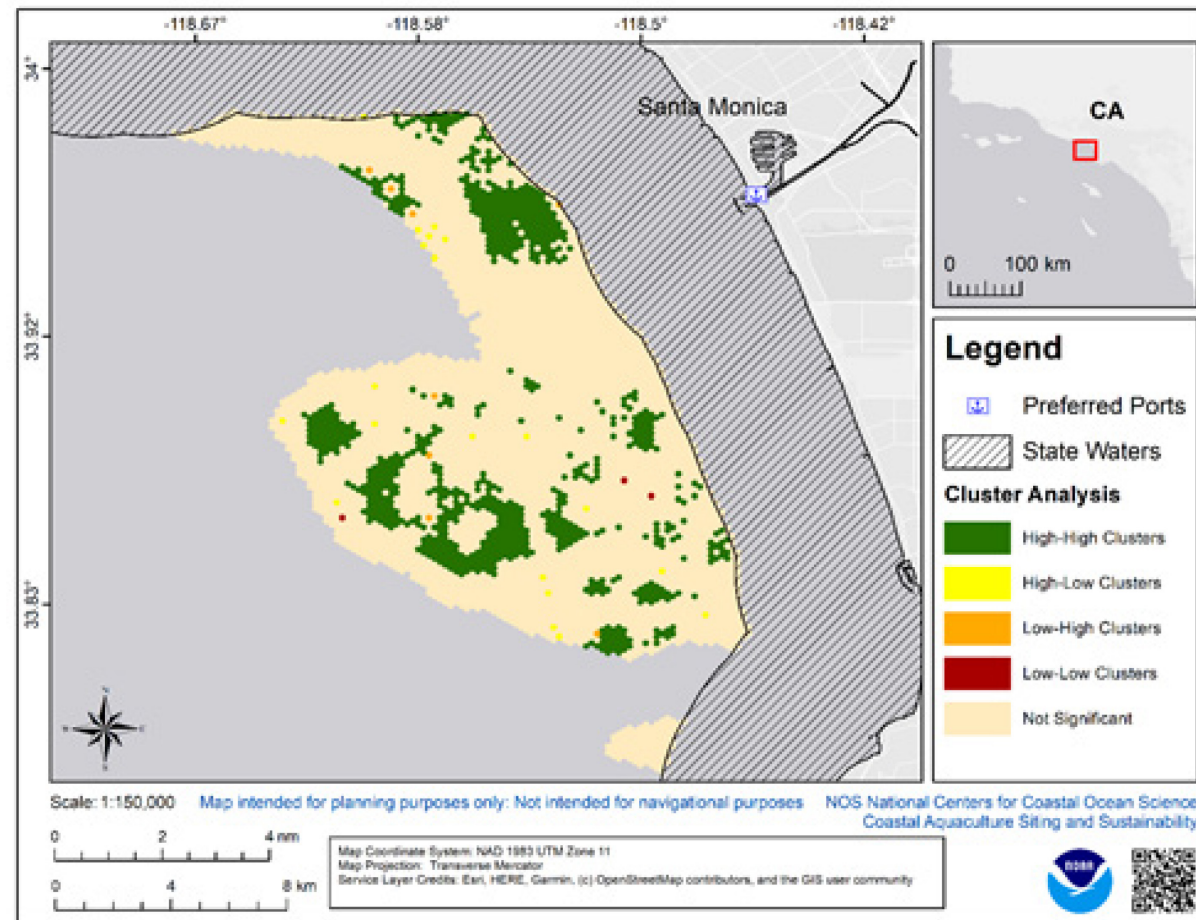
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Results Suitability - Santa Monica

Suitability Analysis



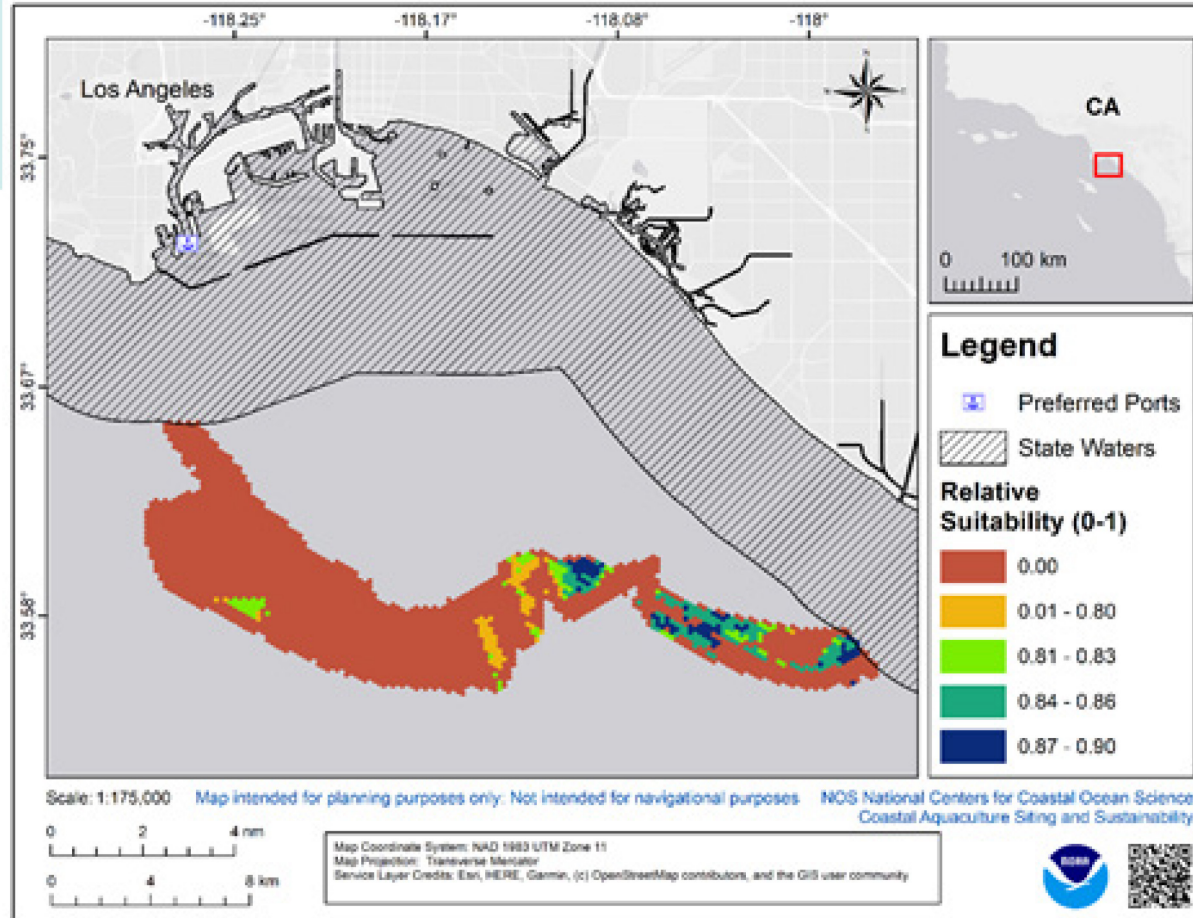
Cluster Analysis



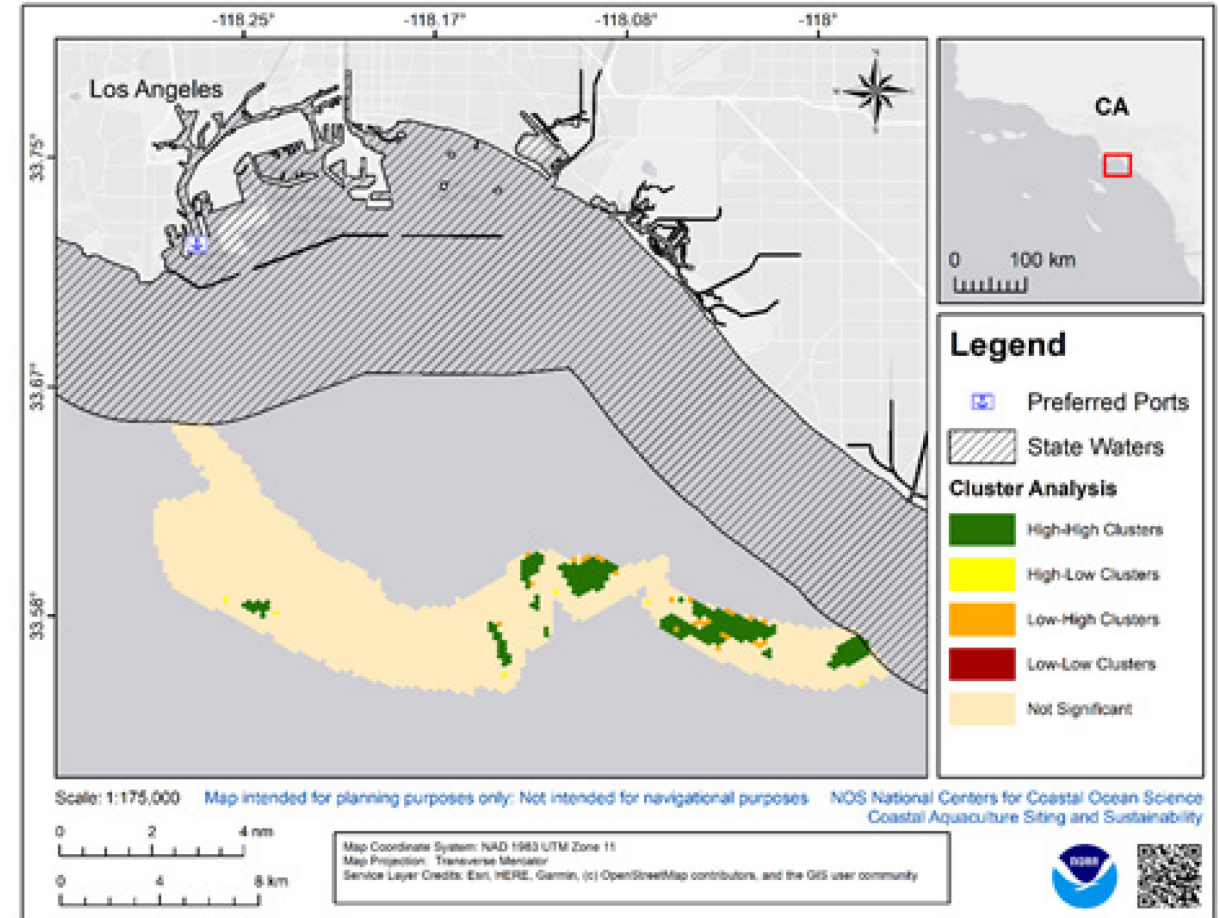
Preliminary draft subject to change based on further analysis and public comments.

Results Suitability - Los Angeles

Suitability Analysis



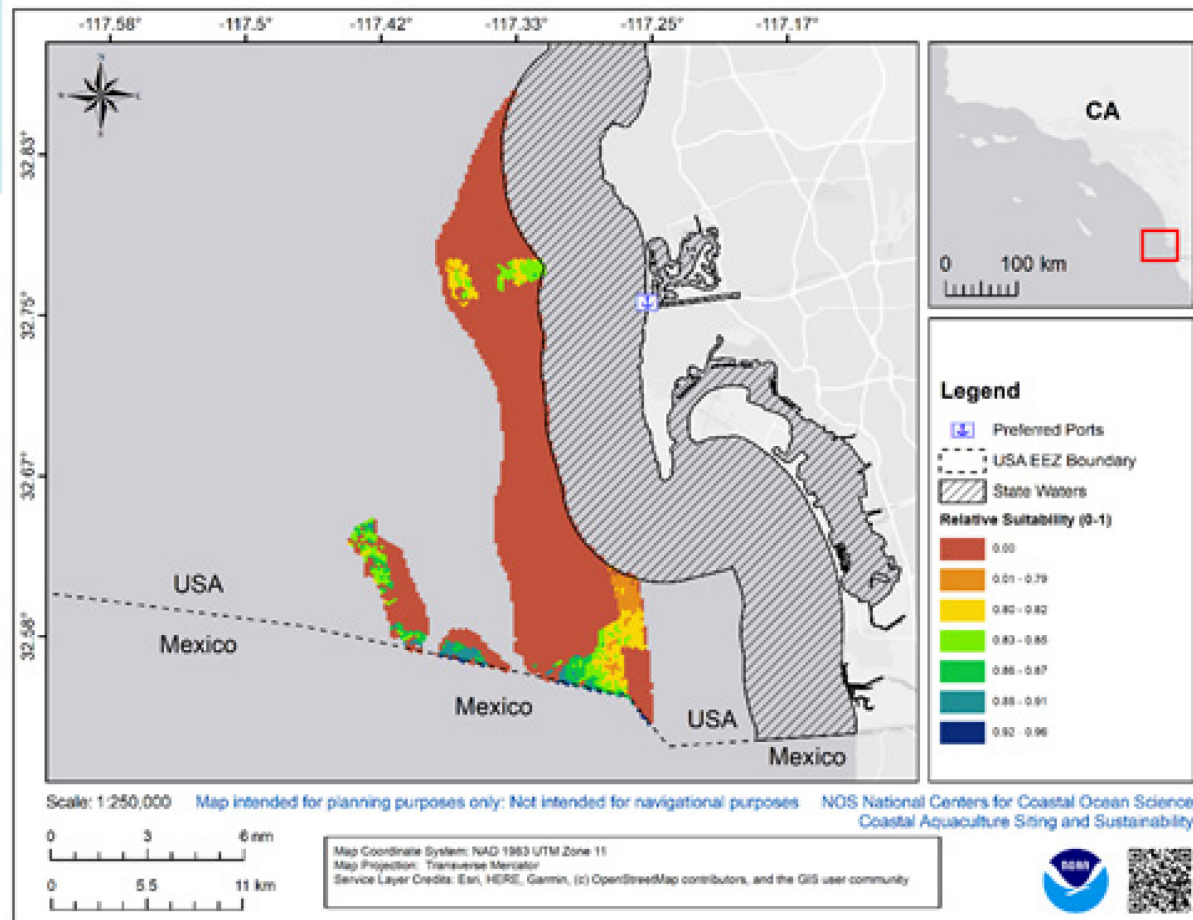
Cluster Analysis



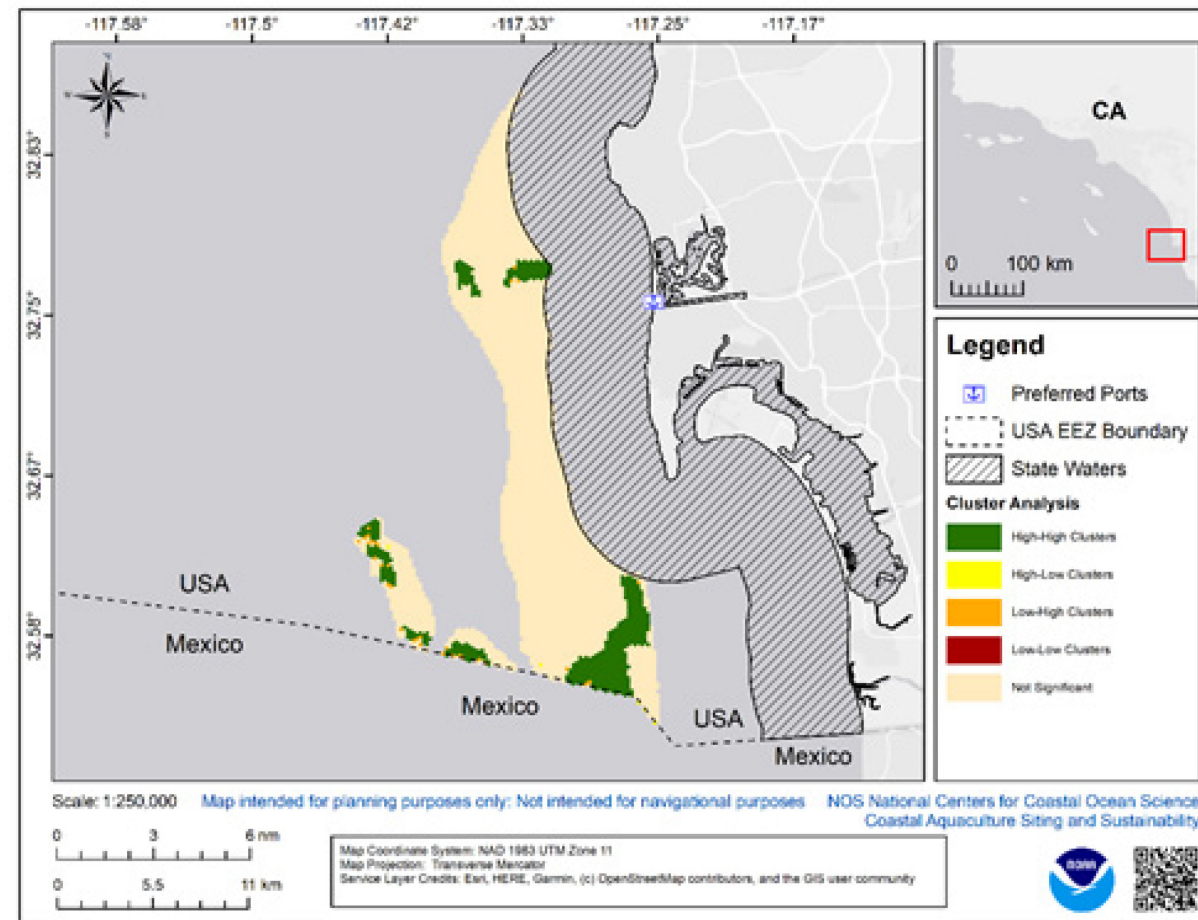
Preliminary draft subject to change based on further analysis and public comments.

Results Suitability - San Diego

Suitability Analysis

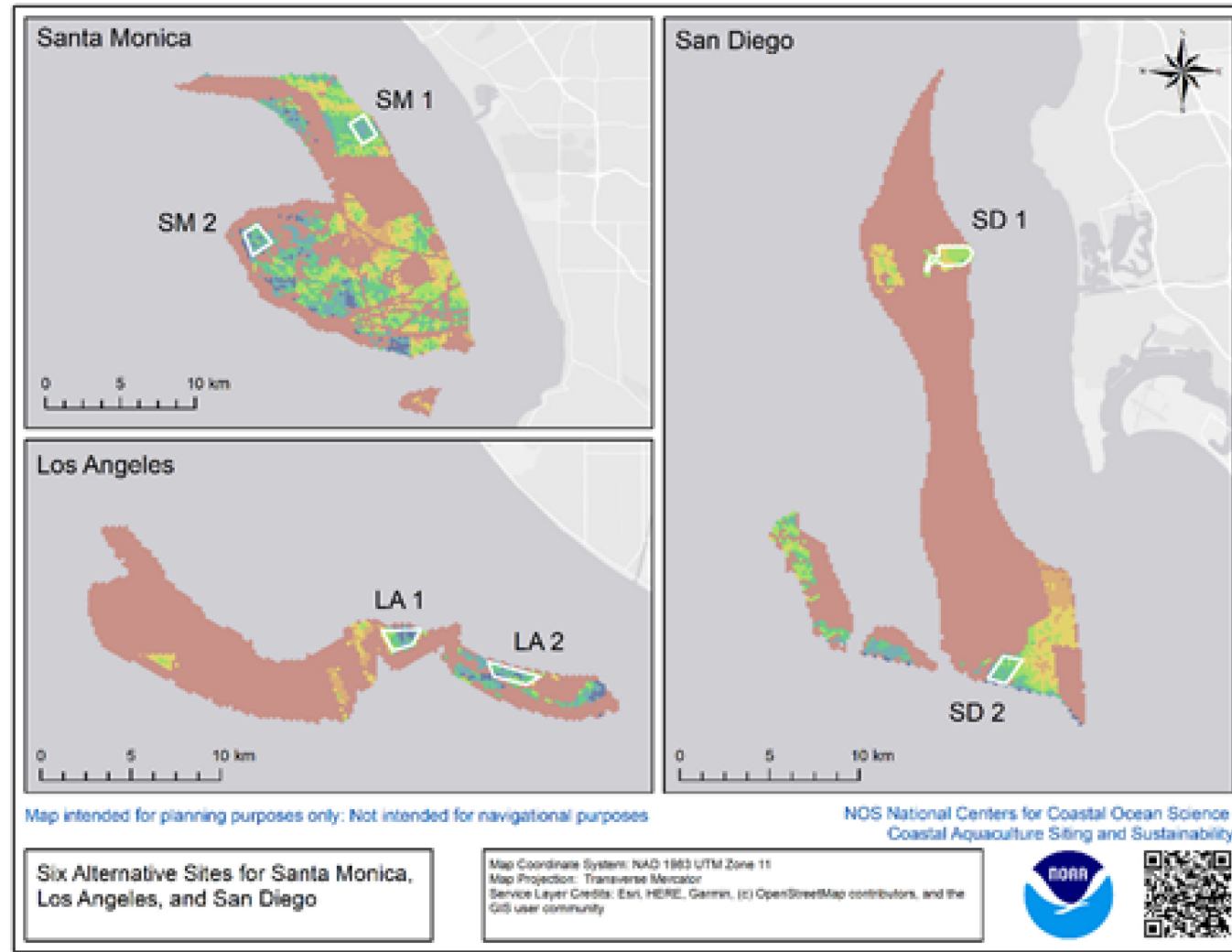


Cluster Analysis



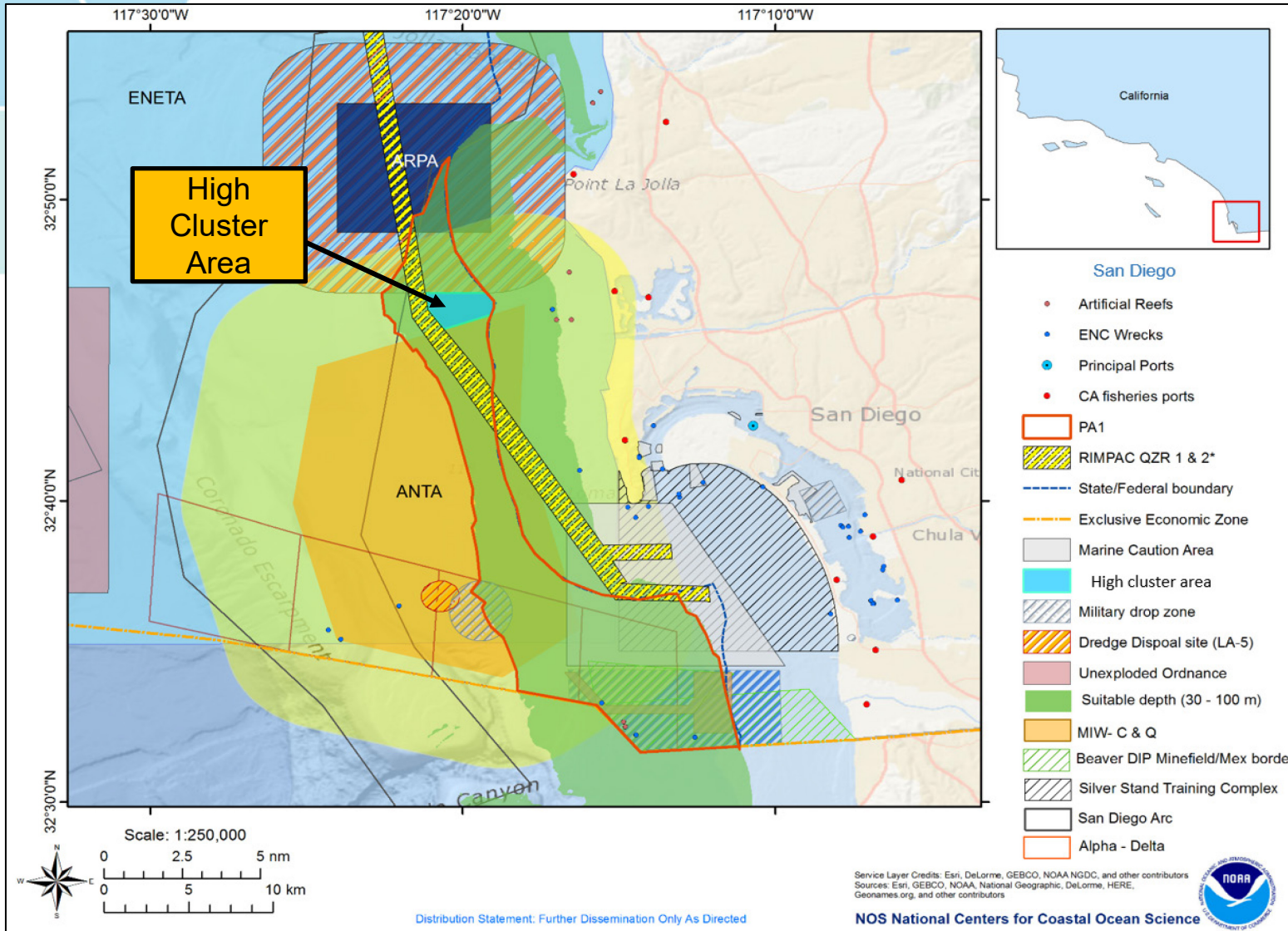
Preliminary draft subject to change based on further analysis and public comments.

Site Alternatives

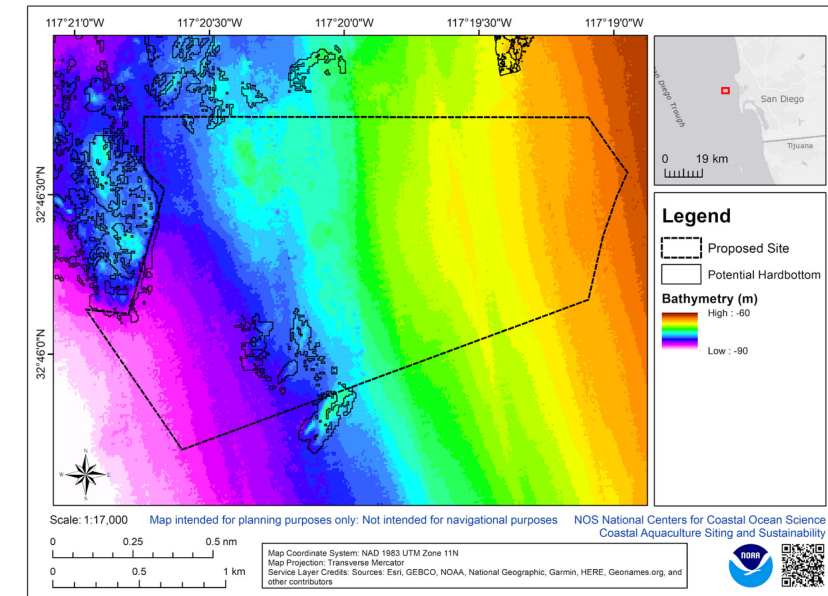


Preliminary draft subject to change based on further analysis and public comments.

San Diego Site (military, wrecks, dredge, etc.)



- Hard bottom area and deep sea coral observations are in outer portion of the original corridor, but site was nudged to avoid sensitive habitat
- Site was also nudged south to avoid being directly adjacent to the ARPA set back area.



Preliminary draft subject to change based on further analysis and public comments.

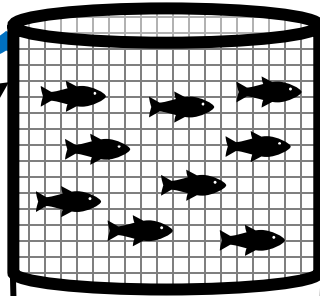
Thank you!



Federal Agency Permits

USACE

Permits
construction in or
over any navigable
waters

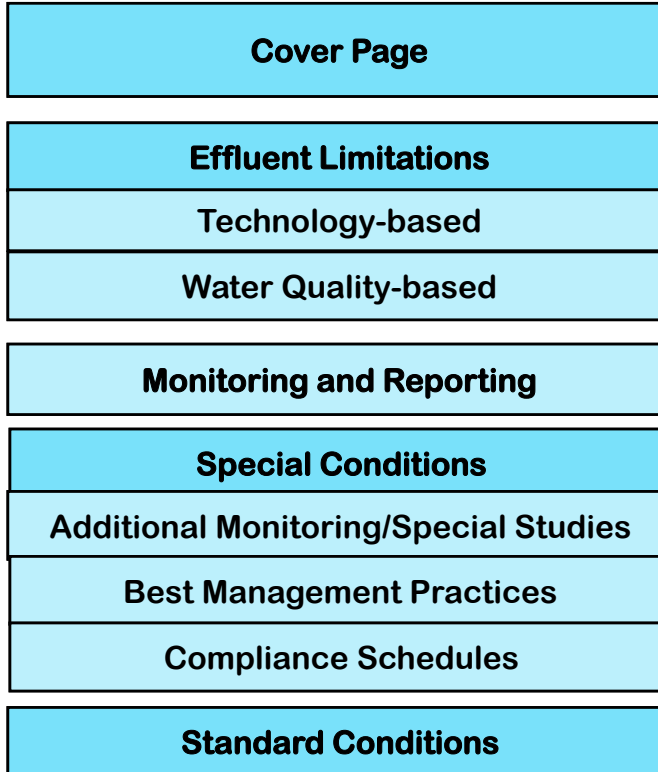


EPA

NPDES permit required
for all **point sources**,
discharging **pollutants**,
into the **waters of the**
U.S.

Components of an NPDES Permit

All Permits

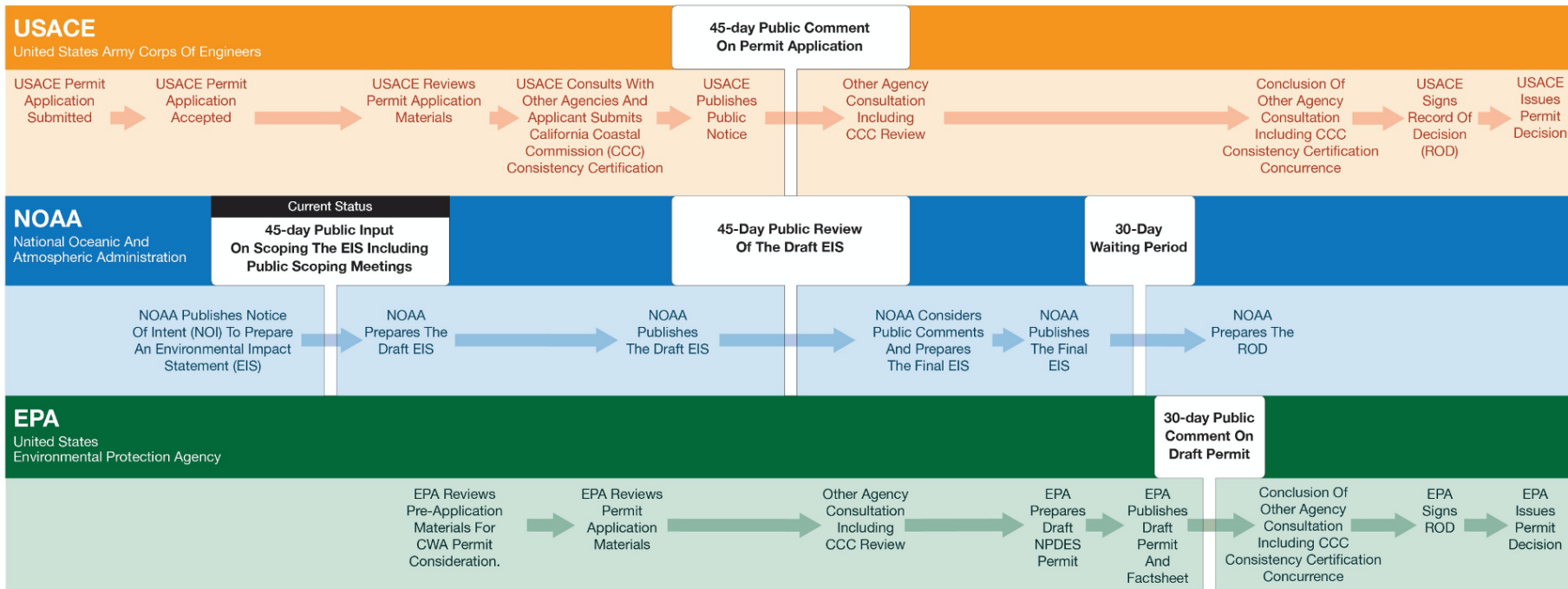


Industry Specific

- Effluent Limit Guidelines
- Case by Case Effluent Limitations

- Limits needed to meet Ocean Discharge Criteria

Environmental Review and Permitting Process



Note: For illustrative purposes only. Not to scale.



Project Overview

Preliminary Project Alternatives For Consideration <u>Feature</u>	San Diego Alternative	Long Beach Alternative	Half-Scale Alternative	Alternative of No Action
Location	~4 nautical miles offshore of San Diego	~4 nautical miles offshore of Long Beach	~4 nautical miles offshore of either location	NA
Area	~1,000 acres	~1,000 acres	~500 acres	0
Capacity (annual)	2.2 – 11 million pounds	2.2 – 11 million pounds	1.1 – 5.5 million pounds	0
Technology	Submersible pens with copper mesh	Submersible pens with copper mesh	Submersible pens with copper mesh	NA
Landside	Port of San Diego	Port of Long Beach/Port of Los Angeles	Port of San Diego, Long Beach, or Los Angeles	NA
Species	Yellowtail, white seabass	Yellowtail, white seabass	Yellowtail, white seabass	NA

NA = Not applicable



EIS Content Overview

- Physical Oceanography
- Air Quality
- Public Health
- Recreation and Tourism
- Environmental Justice
- Climate and Meteorology
- Water Quality
- Marine Mammals*
- Lower Trophic Levels*
- Environmental Contaminants
- Ecosystem Function*
- Fish and Essential Fish Habitat*
- Marine and Coastal Birds*
- Species listed under the Endangered Species Act and their Critical Habitat*
- Socioeconomics
- Cultural Resources
- Transportation
- Visual Resources
- Energy
- Land and Water Ownership, Use, and Management

* Biological resources

Note on Aquaculture Opportunity Areas (AOAs)



Pacific Ocean AquaFarms (POA) permitting and environmental review is not related to the Aquaculture Opportunity Area (AOA) process.

The Notice of Intent initiated the NEPA review to support federal permitting decisions for POA.



How to Comment

Written comments on the scope of the analysis to be considered in the draft EIS must be submitted no later than October 26, 2020.

Public comments may be submitted orally at this time or via chat function of this webinar until 5:00 p.m. Pacific Standard Time.

You may submit comments on the scope of this EIS via the Federal e-Rulemaking Portal

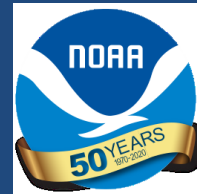
1. Go to www.regulations.gov
2. Enter [NOAA-NMFS-2020-0117](#) in the search box
3. Click the "Comment" icon, complete the required fields, and enter or attach your comments

Copies of this presentation and other project materials are available on the website:

<https://www.fisheries.noaa.gov/national/aquaculture/pacific-ocean-aquafarms-environmental-impact-statement>



Pacific Ocean AquaFarms Scoping Meeting



Copies of this presentation and other project materials are available on the website:

[https://www.fisheries.noaa.gov/national/aquaculture/
pacific-ocean-aquafarms-environmental-impact-statement](https://www.fisheries.noaa.gov/national/aquaculture/pacific-ocean-aquafarms-environmental-impact-statement)

Thank you for participating

NEWS

'Plenty of fish' in the sea? Local anglers want to throw back proposed fish farm off San Diego coast

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Local fisherman John Law, pictured with deckhand Victoria Minnich, says he opposes the location of a new fish farm proposed for federal waters off Bird Rock and Mission Bay. (Courtesy)

By ELISABETH FRAUSTO | STAFF WRITER

SEP. 27, 2020 | 8 AM



A local research institute has proposed a new fish farm in the ocean off Bird Rock and Mission Bay, and some in the local fishing industry are unhappy about the prospect.

The proposed Pacific Ocean AquaFarms, a venture of the [Hubbs-SeaWorld Research Institute](#) and Long Beach-based investment group [Pacific6 Enterprises](#), aims to produce 5,000 metric tons of yellowtail fish annually in federal waters four miles off the coast, according to a [federal permit application](#) submitted Sept. 9.

The project would create economic opportunities and provide a local source for a fish that is now mostly imported, backers say.

The National Oceanic and Atmospheric Administration, serving as lead agency, published a [notice of intent](#) to prepare an environmental impact statement for the proposed development, “a commercial-scale finfish aquaculture facility,” according to NOAA Fisheries spokeswoman Kate Goggin.

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Pacific Ocean AquaFarms project

Facility would be the first aquaculture project in U.S. federal waters cultivating yellowtail off the coast of Southern California. The facility could generate up to 5,000 metric tons of fish annually.



Sources: NOAA Fisheries; Nextzen; OpenStreetMap

The farm's proposed location alarms John Law, an independent commercial fisherman who has been fishing outside Mission Bay since the mid-1970s.

"I've been fishing this little patch of water where they propose to put this fish farm every year of my life and I don't want it to go away. I don't want them to put a Walmart on top of my grocery store," he said.

Law has opposed the location of the project since first hearing of it years ago. "I'm not an opponent of fish farms," he said. "My opposition to this farm has only been its location."

Not only would the fish farm hurt Law's livelihood, he said, but "it's a bad fit for the community."

Residents in the La Jolla and Pacific Beach areas should be wary, he said: "It's going to change their view and quite possibly affect their water quality, the condition of their beaches.

"It's a big industrial farm; it's 1,000 acres. It's not a small thing."

Law sent an email to alert the Bird Rock Community Council of the proposed location.

Community Council President John Newsam said Law would be invited to speak during the group's next meeting Tuesday, Oct. 6.

"I don't have more input than that at this stage, but anything that might impact our ocean is, of course, a concern to an ocean-edging community like ours in Bird Rock," Newsam said.

Several community group leaders in Pacific Beach and Ocean Beach said they weren't familiar enough with the proposal to comment.

The farm's location also worries Pete Halmay, a sea urchin diver and president of the San Diego Fishermen's Working Group, a nonprofit representing local anglers on issues that "affect all the fisheries of San Diego," according to Halmay.

The group is preparing a "pretty detailed explanation of why [the project] doesn't work," Halmay said. "It hurts fishing, it hurts the environment, it hurts everything. There really isn't much of an upside to it."

Halmay said "you need aquaculture in poor countries, where food is limited. But that's not what this thing is about; it's about expensive yellowtail tl

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The Pacific Ocean AquaFarms project, Halmay said, would "destroy our fish marketing; we're not going to be able to sell our local fish."

“That’s just the economic argument,” he said, adding that the influx of farmed fish would pollute the water and that materials used may injure whales and other marine mammals. “This is just the tip of the iceberg,” he said. “Almost everything about this project is bad.”

But Don Kent, chief executive of Hubbs-SeaWorld, said he hopes the proposed farm will give “the San Diego seafood industry, as well as the commercial fishermen that want to be involved in it, an opportunity to have a complementary source of income that will help revitalize the seafood infrastructure down on the port, as well as provide jobs for ... people who work on the water.”

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Federico Rotman of the Hubbs-SeaWorld Research Institute with a young adult California yellowtail at the organization's Mission Bay laboratory. (Courtesy)

The selected location, Kent said, “meets all the oceanographic conditions that we’re looking for: depth profile, sandy bottom, that sort of thing.”

San Diego has many such locations, he said, but the Navy, expressing concerns about possible interference with its research and training operations, limited the area to the 1,000-acre “polygon” proposed for the farm.

Addressing concerns of reduced water quality, Kent said preliminary studies show that “if you site the farms appropriately, with the right depth and current flow, there is no degradation of the water quality, there’s not deposition of materials.”

He also said “that’s something that needs to get dealt with as part of the [environmental review] process.”

However, Ernie Prieto, who runs a sportfishing operation out of Oceanside and fished out of Mission Bay for 17 years until 2018, said he’s concerned about “the privatization of previously accessible fishing waters. Any proposed fish farm placed over ‘live bottom’ ... where fish congregate, feed and propagate their species, will cause a lack of fishable space.”

The project application states that a “preliminary alternative” site is being considered about four miles off Long Beach.

Law hopes the alternate location will be chosen, saying it has “already been used for aquaculture, which to me would be the right path because you have a site that’s already been vetted and used and passed through the court of public opinion.”

Prieto said he “would love to see [the farm] go to Long Beach. That area’s already been set up as a fish farm. That makes more sense, to put a farm where there used to be a farm.”

Kent, however, said the San Diego location “is closer to our operation,” noting that he’d like to see “the economic benefits be realized in San Diego.”

Hubbs-SeaWorld, based at Mission Bay and with contacts with area universities, is a “center for research and innovation here, and I think this is a complement to that,” he said.

Goggin said NOAA is accepting “the human environment, means for avoiding, minimizing or mitigating those effects, the preliminary reasonable range of alternatives and any additional reasonable alternatives.”

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NOAA also will hold two public webinars Oct. 14 and 16. Details for commenting to NOAA and joining the webinars are at bit.ly/fishfarmcomment.

Public comments will “inform preparation” of the draft environmental impact statement, Goggin said, which will then be released for public review.

With the environmental study and construction, it could be up to five years before the farmed fish are ready for consumption.

Matt O'Malley, executive director and managing attorney for San Diego Coastkeeper, a nonprofit environmental group, said his organization is “closely tracking this project, as we have been tracking attempts to industrialize our ocean and coastline with factory finfish farms and cages.”

“Massive finfish projects such as the one proposed would have significant harmful impacts on water quality, wildlife and habitat, marine mammals, native fish stocks (including disease transmission) and our Marine Protected Areas here in San Diego,” O'Malley said. “San Diegans don't want their oceans and coastline to be industrialized and destroyed with profit-driven projects such as this.”

San Diego Coastkeeper is “positioned to fight this project,” he said. “We support investing in rebuilding native fish stocks and our local fishing community toward a sustainable fishing future for San Diego.”

— *San Diego Union-Tribune staff writer Deborah Sullivan Brennan contributed to this report.*

NEWS

Elisabeth Frausto

Elisabeth Frausto is a reporter for the La Jolla Light.

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Friday, October 02, 2020

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Sustainable Fish Farm Planned Off San Diego Coast

By Lou Hirsh (/staff/lou-hirsh/)

Sunday, October 12, 2014

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Tweet

San Diego-based Hubbs-SeaWorld Research Institute and private equity firm Cuna del Mar LP have filed permits to develop an environmentally sustainable, 5,000-metric-ton finfish farm off the San Diego coast.

The two entities have formed a collaboration known as Rose Canyon Fisheries, which recently filed paperwork with federal and state agencies to develop what partnership representatives said would be the first open-ocean finfish farm in U.S. federal waters.

Rose Canyon Fisheries representatives said permitting will take 12 to 18 months to complete.

A statement from Rose Canyon Fisheries said the farm will use the latest technology to raise yellowtail jack, white seabass and striped bass through practices that meet stringent U.S. environmental and food safety standards. Officials said innovative, submersible cages will be located 4.5 miles west of Mission Beach.

The U.S. imports about 91 percent of seafood consumed domestically, worth \$14 billion annually. "There is enormous need for new domestic supplies of safe, healthy, sustainable and locally sourced seafood," said Don Kent, president and CEO of Hubbs-SeaWorld Research Institute and acting CEO of Rose Canyon Fisheries.

Cuna del Mar Managing Partner Robert Orr, who is board chairman of Rose Canyon Fisheries, said the project could serve as "a new paradigm" for domestic seafood production and spur nationwide development of the industry.

Hubbs-SeaWorld Research Institute, based at Mission Bay, is a 501(c)(3) nonprofit marine research organization founded in 1963 that also operates local fisheries. Maine-based Cuna del Mar invests in early-stage businesses and other aquaculture ventures geared to sustainable growth of seafood supplies.



(/enews-signup/)



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Earth 8: First-of-its-kind aquaculture could be coming to San Diego waters

Hubbs has been developing the model with yellowtail since 2003. The pens would be located about four miles off the San Diego coastline.

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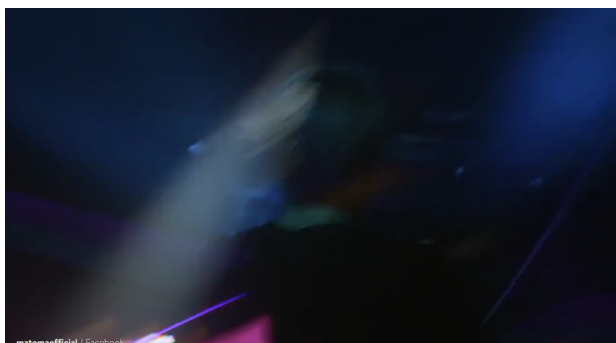
Author: Shawn Styles (Weather)
Published: 6:33 PM PDT September 28, 2020
Updated: 6:33 PM PDT September 28, 2020



SAN DIEGO — Over 85% of seafood consumed in the United States is imported but the folks at [Hubbs-SeaWorld Research Institute](#) want to change that with yellowtail fish.

"What we want to do is develop a model on how to do this for the country," said the institute's president Don Kent.

Hubbs is behind the first-of-its-kind aquaculture in federal ocean waters.



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"If we're growing yellowtail here, they could be growing almaco jack in the Gulf of Mexico," said Kent. "Keep the species in the range they live."

Pacific Ocean Aquafarms is the business side of the partnership that is working with Hubbs, but before that can happen, they have to get permits from the Army Corps of Engineers and the E.P.A. Last week, a notice of intent was registered.

"That informed the public NOAA would be leading an environmental review for those permits," Kent said.

This is to allow people time to raise objections or pose questions.

The pens would be located about four miles off the San Diego coastline.

"So, this is really a model for how it should be done for the entire country," said Kent. "It takes into account anybody's concerns and any other issues."

Hubbs has been developing the model with yellowtail since 2003

"But it's time now to transfer it from what we do in the lab to where it's going to feed real people," Kent said. "It has to be done on a much larger scale."

Permitting is expected to take 18 - 24 months.

"Then a year to mobilize the farm and build the pens that are going out," said Kent. "It takes 18-22 months to grow the fish 3.5 - 4 kilos. We're going to start at 1,000 tons. It will take another five years for full production."

Kent thinks that full production will equal 5,000 metric tons and by growing the food closer said that means a lower environmental cost.

"If we grow the food four miles away instead of five or six thousand miles away, we're lowering our carbon footprint and lowering the overall cost to produce the food," he said.

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CALIFORNIA

Open-ocean fish farm proposed off San Diego coast could be first in federal waters



Hubbs-SeaWorld Research Institute researcher Kevin Stuart with juvenile California yellowtail at the organization's Mission Bay laboratory. (Hubbs-SeaWorld Research Institute)

By DEBORAH SULLIVAN BRENNAN

SEP. 20, 2020 | 5:51 PM

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waters.

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The proposed Pacific Ocean AquaFarm would be about four miles offshore of San Diego and would generate 5,000 metric tons of sushi-grade yellowfish each year — enough for 11 million servings of the popular seafood.

A partnership between Hubbs-SeaWorld Research Institute and Pacific6 Enterprise, the project also would create a diversity of economic opportunities and provide a local source for a fish that is now mostly imported.

The institute submitted a [federal permit application](#) for the project Sept. 9. The National Oceanic and Atmospheric Administration will lead the environmental review of their proposal, which will take about 18 to 24 months. Construction would take about a year, and the first set of fish stocked there would be ready for market 18 to 22 months after that, Kent said.

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Environmental groups have opposed previous offshore aquaculture projects, saying that they pose risks to marine life, can foul the water and undermine wild fisheries. Kent said that the project would be cleaner than aquaculture facilities in other countries and would be designed and located to avoid harmful effects to marine animals or fishermen. He said similar projects are already in operation in Mexico, but launching the operation in San Diego could enhance job creation and food security here.

“We would rather have all the economic benefit in this country here, for our people,” he said. “Since we’re buying the product anyway, we would rather grow it to our standards.”

Hubbs-Seaworld already operates a hatchery in Carlsbad, and there are farms that raise oysters and abalone in Southern California, Kent said.

But there are no other aquaculture projects in U.S. federal waters, defined as three to 200 nautical miles offshore. In 2014, the organization proposed opening a different project, Rose Canyon Fisheries, near San Diego, but that project never came to fruition.

Part of the challenge for projects like this is the longer timeline, which can scare off conventional investors, said John Molina, a founder of Pacific6, which has invested in other aquaculture operations, clean energy, affordable housing and historic renovation projects. Pacific Ocean AquaFarms could be a prototype for sustainable and profitable fish production.

“One of our goals is to demonstrate that this can be done in a way that investors get a fair return,” he said.

The operation would produce sushi-grade yellowtail.

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higher fat content, which may be preferable for some dishes,

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others, he said. Chefs are familiar with those differences, through farmed fish sources from other countries, Rudie said.

“The market already understands the difference in wild and farmed fish,” he said.

“They’re apples and oranges in terms of taste and texture. They’re different.”

Another change would be the consistent availability of farm-raised fish, Kent said.

Although fish reproduce on seasonal cycles in the wild, the organization would adjust that timing to produce hatchlings year-round.

“The fish start out as eggs that we harvest from a group of adult brood fish, that produce eggs in the spring and summer,” he said. “By controlling temperature and daylight, we can have groups of multiple adults producing eggs year-round. You stock the farm, and at different times of year, you get a more consistent distribution of size.”

Once they reach about 30 grams, or 4 to 5 inches long, the fish would be transferred to floating pens, suspended in grids about four nautical miles off Mission Bay, the project’s preferred site. In each pen, a 30-meter ring of durable plastic piping would hold a net hanging 14 meters down, along with netting on top to keep the fish in, and predatory birds out, Kent said. The pens would be moored to the bottom, with fish swimming freely within the net-lined pens.

Each pen can grow 250 metric tons of yellowtail, harvested when they reach about 7 to 9 pounds. Fourteen such pens would be set within a submerged steel grid, 80 meters per side. And a second, similar grid would be set due west of the first, slightly farther offshore, Kent said. The organization would start with just four pens in order to analyze their process and results before reaching full p

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country, with the first in Southern California and Baja. The **SUBSCRIBE** n by
NOAA and comes under an executive order signed by President Trump in May.

In addition, Hubbs-Seaworld plans to enhance its [hatchery program in Carlsbad](#). New legislation by Assemblywoman Tasha Boerner Horvath (D-Encinitas) authorizes the organization to update the program, which produces white sea bass, to conduct research on all species of marine fish with an economic effect on California.

Environmental groups have expressed reservations about aquaculture projects, including those proposed for open waters, citing concerns about predation, pollution and effects on other marine species such as whales, dolphins and sharks.

The organizations Friends of the Earth, Recirculating Farms Coalition and Northwest Atlantic Marine Alliance complained that Pacific Ocean AquaFarms could release fish waste and other pollution from antibiotics, pesticides and other chemicals into the surrounding waters.

“Industrial aquaculture facilities can disrupt ecosystems, harm coastal economies and threaten the livelihoods of fishing communities,” the groups said in a joint statement. “The government needs to stop prioritizing risky, dangerous and outdated methods of fish production at the expense of responsible seafood producers.”

Kent said Pacific Ocean AquaFarms would minimize risk to marine life, with thick cables that reduce the risk to animals. He said modeling by NOAA shows that the excess nutrients produced by the fish would be quickly diluted in the deep water, a premise that would have to be tested as the fish farm pursues permits.

The project would need to be vetted by half a d

NOAA, the U.S. Army Corps of Engineers, the

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Coast Guard, which would analyze its environmental effects on marine mammal migration, ship traffic and other conditions.

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Rudie, who sits on an advisory committee to the Pacific Fishery Management Council, which regulates fishing operations, said the project would also have to satisfy fishermen's concerns about disruption to existing wild fisheries.

"Fishermen have concern about competition, and placement of the farm ... so we have to listen to all parties' input," he said.

Kent said the greater risk is not pursuing aquaculture in the U.S., where most of the seafood consumed is now imported. The Pacific Ocean AquaFarms project could generate economic opportunities for the area, including about 75 jobs, and other indirect benefits. And it could help boost the U.S. share of world fish production, Kent said.

"The idea of being self-sufficient in our food supply is something that we've always accepted in the U.S.," he said. "Now over 85% to 90% of our seafood is imported."

San Diego is the hub of [West Coast swordfish fisheries](#) and was once the capital of the [tuna industry](#). Local fishermen also harvest various groundfish and migratory tropical species. Many wild fisheries are near their limit, and aquaculture can be a sustainable way to produce protein, officials said.

"We believe that there is a need to diversify how we get our food," said Molina, of Pacific6. "It doesn't mean that we're going to replace cattle. We're not looking to replace hamburgers and steaks, but we do feel that seafood is important, and having seafood that is locally sourced is very, very important."

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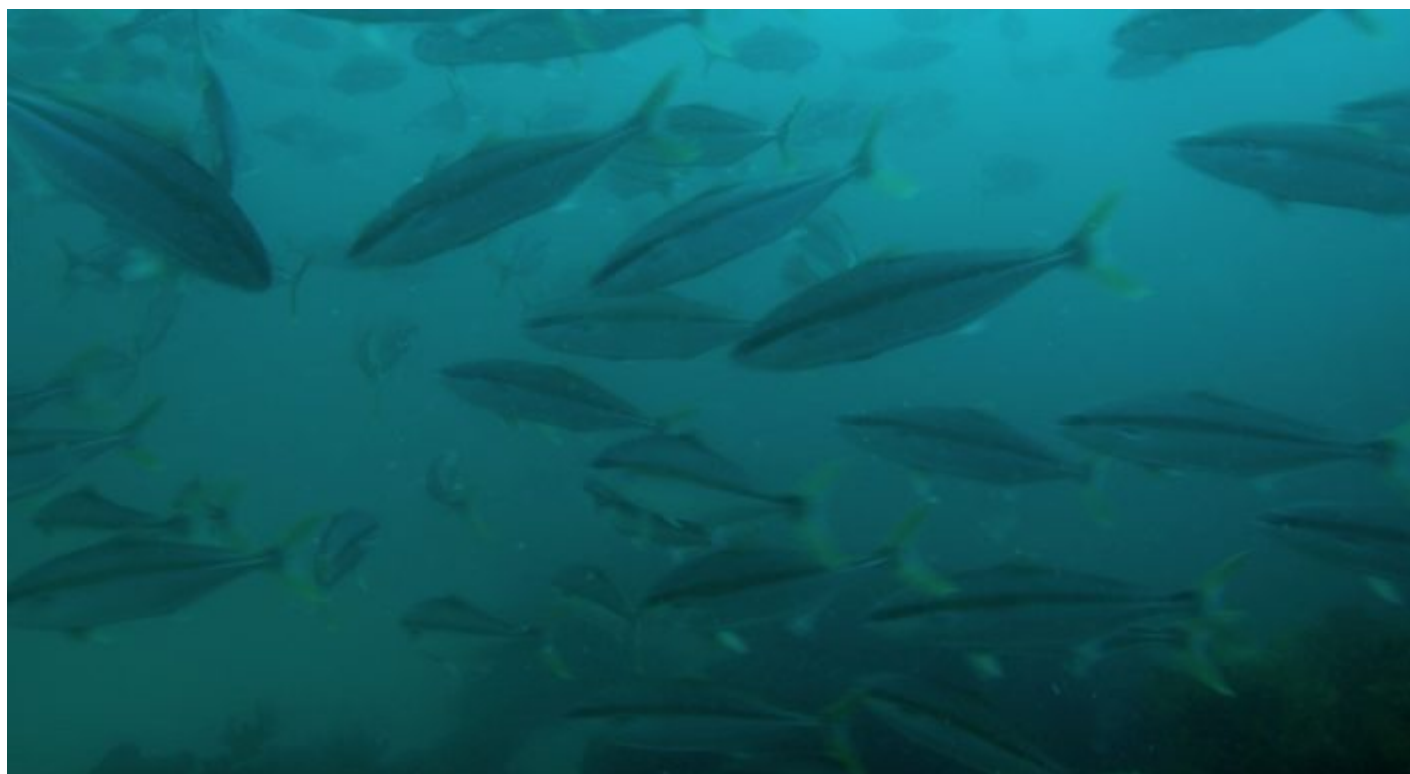
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California offshore yellowtail farm takes first steps down long regulatory road

By [Jason Smith](#)

Nov. 2, 2020 17:21 GMT



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A yellowtail farm proposed off the California coast has completed its first steps toward what could become the first commercial-scale finfish operation in US federal waters. But there's a long way to go still.

A 45-day public comment period during the scoping phase of the environmental impact statement (EIS) process for Pacific Ocean AquaFarms (POA) ended on Oct. 26. During two hearings held on Oct. 14 and 16, the public was invited to ask questions and comment about the issues they wanted to see included in the EIS process.

"The reason you have an EIS process is to lay it all out there for everybody to see and then comment on it," Don Kent, the executive director of the Hubbs-Sea World Research Institute (HSWRI), a consultant to POA told *Undercurrent News* last week. "This is the first comment period. You saw two of them. Then the EIS goes out for public review. And hopefully, what people will see is this is my concern, and this is how they're answering it."

EIS process

In September, John Molina, a founding partner of investment partnership Pacific6, which is backing the farm, told *Undercurrent* that POA had been working on the project since 2017, and he expects the remaining regulatory steps to take several more years.

"This is a fairly long process. I couldn't tell you exactly when. We hope to get fish in the water as soon as we can assure ourselves and the government and the public that it can be done safely, efficiently and in an environmentally friendly way," he said.

The National Oceanic Atmospheric Administration (NOAA) is leading POA's application through a review process required by the National Environmental Policy Act. A California-based environmental consulting firm, Dudek, will work with NOAA to complete a draft EIS, which will then undergo another public comment period. The agencies will review and respond to the comments in a draft final EIS, which will be used by the US Environmental Protection Agency (EPA), the US Army Corps of Engineers (USACE), and the US Coast Guard in determining whether to grant POA the permits it needs and under what conditions. The whole process could take around two years or more, Kent said.

Molina said that in addition to the EIS work that is going on, HSWRI is working on the "fish science" aspects of the plan, such as developing yellowtail broodstock and the best feed formulations.

"We're also doing our homework on the best cages to get, and we're talking to the ports about what their participation can be. So it's not totally doing the EIS, but that's a big portion of it and just making sure that we talk to folks and get the stakeholder engagement," Molina said.

'Patient capital'

He added that the endeavor requires "patient capital" and is expected to require "tens of millions" of dollars.

According to NOAA, POA's project would use 28 submersible net-pens occupying 717 acres of a roughly 1,000-acre area of ocean. The project intends to grow 2.2 million pounds (1,000 metric tons) of California yellowtail (*Seriola dorsalis*) annually, eventually raising that number to 5,000t "after environmental monitoring

confirms that each successive scale of expansion has not resulted in any substantial environmental or space-use impacts", NOAA said.

The developer would also consider growing white seabass (*Atractoscion nobilis*) in addition to yellowtail, NOAA said. As an alternative to the San Diego site, POA is seeking a site four nautical miles off the coast of Long Beach. The developers have also proposed a "half-scale" alternative that would consider an initial projected production of 1,000t and a final production of 2,500t that could be built off the coasts of San Diego or Long Beach.

Building the site once the permits are received is expected to take one year, and the 5,000t annual production figure could take three to six years to achieve after construction, NOAA said.

Public comment

During the Oct. 14 hearing, which attracted over 60 participants, many of the questions and concerns came from commercial fishermen in California who worry that the planned farm will imperil their fishing grounds or present competition.

The site selection process is still underway. NOAA's James Morris told attendees that the process begins with mapping "ocean neighborhoods" through NOAA's spatial planning tool known as Ocean Reports taking into account factors such as natural resources, pipelines, submarine cables, military uses, shipping lanes, commercial fishing zones and other uses.

Then, planners perform suitability and cluster analysis to determine alternative areas off the coasts of Los Angeles and San Diego, identifying two potential sites in each. The EIS process will further refine where to site the farm. But that's problematic for fishermen at this stage, Mike Conroy, the executive director of the Pacific Coast Federation of Fishermen's Associations, said during the meeting.

"You understand it's going to be difficult for fisheries to comment on the specific locations without knowing where the specific locations are?" he said.

Location information

NOAA's Steve Leathery responded that the agency intends to publish more specific location information when it becomes available.

"We want to emphasize that we have limited information here today and the primary purpose of this meeting is to receive comments and questions to guide us on the type of information and issues that we need to gather before proceeding with the draft environmental impact statement. So all of the comments that we're receiving are very helpful and we appreciate the public engagement on this," Leathery said.

Other attendees to the meeting asked about the farm's feed conversion ratios, any boating or fishing restrictions that will be imposed near the site, and what will be done to avoid the 2017 disaster suffered by [Cooke Aquaculture Pacific in Washington's Puget Sound](#) when accumulated debris on a net-pen caused a massive escape of Atlantic salmon.

On this last point, Leathery said that if a permit granted, it will come with monitoring plans, inspections and "enforcement to maintain the pens appropriately".

Offshore aquaculture projects in federal waters have been controversial in recent years. A smaller proposed almaco jack (*Seriola rivoliana*) farm off the coast of Florida [by the firm Ocean Era](#) is in a more advanced stage of permitting. The temporary demonstration project involves one cage and one cohort of 20,000 fish going through a single cycle.

But it and offshore aquaculture more generally has been consistently opposed by groups including Greenpeace, Earth Justice, Food & Water Watch, the Center for Food Safety, Recirculating Farms, Friends of the Earth and at least 14 others have joined the "Don't Cage our Ocean Coalition" to speak out against it.

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