National Marine Fisheries Service
Southeast Regional Office

NOAA FISHERIES

Gulf of Mexico Aquaculture Opportunity Area Programmatic Environmental Impact Statement

Public Scoping Summary

May 2, 2023

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National Oceanic and Atmospheric Administration
National Marine Fisheries Service, Southeast Regional Office
Andrew J. Strelcheck, Regional Administrator
May 2, 2023

Cooperating Agencies:

US Army Corps of Engineers®

BUREAU OF OCEAN ENERGY MANAGEMENT

U.S. AIR FORCE

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Acronyms

AOA – Aquaculture Opportunity Area

BOEM – Bureau of Ocean Energy Management

DAF – Department of the Air Force

EPA – Environmental Protection Agency

E.O. – Executive Order

FAD – Fish-aggregating device

NEPA – National Environmental Policy Act

NOAA – National Oceanic and Atmospheric Administration

NOAA Fisheries – National Marine Fisheries Service

NCCOS – National Centers for Coastal Ocean Science

NPDES – National Pollutant Discharge Elimination System

PEIS – Programmatic Environmental Impact Statement

USACE – U.S. Army Corps of Engineers

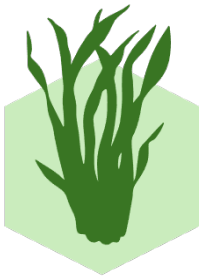
USFWS – U.S. Fish and Wildlife Service

Highlights

- The National Marine Fisheries Service (NOAA Fisheries) conducted public scoping for the Gulf of Mexico Aquaculture Opportunity Area (AOA) Programmatic Environmental Impact Statement (PEIS) from June 1, 2022 to August 1, 2022 (60 days).
- During public scoping NOAA Fisheries asked for feedback on nine (9) areas for possible consideration as AOA locations in federal waters off the coasts of Florida, Louisiana and Texas, as well as for feedback on the scope and range of issues to be addressed in the PEIS.

- Comments were accepted in writing through www.regulations.gov and the mail, and verbally at three virtual public scoping meetings.
- NOAA Fisheries received a total of 216 submissions; 191 of those were written submissions and 25 were provided in the form of verbal comments during virtual public scoping meetings.

- Nineteen written submissions were replicate form letters. Two of the written submissions were petitions. One petition, with 8,272 signatures, opposed “aquaculture facilities everywhere”; and a second petition, with 242 signatures, requested that NOAA not move forward with identifying AOAs.
- Nearly half (49.5%) of the submissions were from individuals and organizations from the state of Florida (not every submission identified a state of origin).



- A wide variety of local stakeholders, including but not limited to, community members and organizations, chambers of commerce, and commercial and recreational fishermen, expressed concerns related to locations E-1, E-3, and E-4 off Florida. Many of these concerns focused on the potential for offshore finfish aquaculture to influence and exacerbate red tide events, and thus have a negative effect on ecosystem health, public health, and the recreational fishing and tourism economy.

- Approximately 80% of the submissions opposed the identification of AOAs in some way, including objecting to the process of identifying AOAs, specific locations, or specific aquaculture types (frequently finfish aquaculture).
- The commercial shrimp fishing industry expressed concerns about locations C-11 and C-13, which overlap with areas of high or moderate shrimping activity.
- Comments from recreational fishermen and organizations stated they would lose access to active fishing grounds should AOAs be identified.
- Aquaculture industry comments broadly supported AOA identification in the Gulf of Mexico region.

Introduction

The National Oceanic and Atmospheric Administration's (NOAA's) National Marine Fisheries Service (NOAA Fisheries) is developing a programmatic environmental impact statement (PEIS), in accordance with the National Environmental Policy Act (NEPA), to consider identifying one or more Aquaculture Opportunity Areas (AOAs) in U.S. federal waters of the Gulf of Mexico.

The U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (USACE), Bureau of Ocean Energy Management (BOEM) and the Department of the Air Force (DAF) are cooperating agencies[1] on the PEIS due to their jurisdictions as permitting and authorizing agencies and/or their specialized knowledge and expertise. The U.S. Fish and Wildlife Service (USFWS) and U.S. Coast Guard (USCG) are providing their expertise and technical assistance but are not serving as cooperating agencies at this time.

The PEIS will evaluate the beneficial and adverse impacts associated with siting aquaculture in potential AOA locations, which could occur through future proposals and project level review. The intent of the PEIS is to support long-term planning for offshore aquaculture. The PEIS is not a regulatory or permitting action and does not propose to authorize or permit any specific aquaculture-related activities or individual aquaculture projects.

Definitions

Aquaculture Opportunity Area (AOA): A defined geographic area that has been evaluated to determine its potential suitability for commercial aquaculture.

Cooperating Agency: A federal agency other than the lead agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed action.

Written Submission: The entire written document received from a commenter. A written submission may include multiple comments.

Verbal Submission: A spoken statement offered by an individual at a public meeting. Verbal submissions may include multiple comments. Meeting participants had the opportunity to offer multiple verbal submissions.

Comment: Portion of text within a written or verbal submission that addresses a single subject

NUMBER OF SUBMISSIONS
191 WRITTEN SUBMISSIONS
25 VERBAL SUBMISSIONS
216 TOTAL SUBMISSIONS

Public scoping for the PEIS was held from June 1 to August 1, 2022. NOAA Fisheries published a Notice of Intent in the Federal Register on June 1, 2022, announcing its intent to develop the PEIS, and asking for public comments. The Notice of Intent initiated a 60-day public scoping process for the PEIS and identified nine potential locations for AOAs that may be considered. The public scoping period concluded on August 1, 2022.

On the evenings of June 8, June 16 and July 12, 2022, NOAA Fisheries hosted three virtual public scoping meetings during which verbal comments were accepted. During the public scoping period, NOAA Fisheries received a total of 191 written submissions and 25 verbal

[1] NEPA regulations, 40 CFR 1508.5, define a cooperating agency as "a federal agency other than the lead agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed action.

submissions. Of the 191 written submissions, 19 were replicate form letters submitted by individuals and two were petitions signed by a total of 8,514 individuals.

This document summarizes the comments received during the public scoping period. These comments provide NOAA Fisheries and the cooperating agencies with important information to consider in selecting the locations to evaluate as alternatives in the draft PEIS, as well as in shaping the scope of the draft PEIS.

Purpose of public scoping summary

This summary provides a broad overview of the submissions received during the public scoping period for the PEIS. This summary does not replace the verbatim submissions, but highlights the key content and themes within those submissions.

THE PURPOSE OF THIS DOCUMENT IS THREEFOLD:

1. To summarize clearly and concisely the comments that were submitted during the public scoping period;
2. Highlight the major themes in those comments; and
3. Provide a compilation of the verbatim verbal and written submissions (Appendix A).

Statements made in this document are summaries of comments made by public scoping commenters, and are not conclusions or responses by the agency or cooperating agencies. NOAA Fisheries and the cooperating agencies will consider information provided in the public scoping comments and supplementary attachments in developing the alternatives for, and scope and content of, the draft PEIS. This summary does not reflect a decision by any agency; its intent is to promote transparency and share information, particularly for those who might not have time to read all of the public comments individually.

In some cases, along with their written submissions, commenters attached news articles, photographs, scientific journal articles and reports for NOAA Fisheries to consider. Those attachments are not included in this report given their length. However, all written comments and all attachments can be accessed online by visiting www.regulations.gov.

To view comments and attachments on the www.regulations.gov website, please enter "NOAA-NMFS-2022-0044" in the search box on the site. Then click on the link, "Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings". Finally, click on the "View Related Comments" box.

Purpose and need for the PEIS

On May 7, 2020, the White House issued an Executive Order on *Promoting American Seafood Competitiveness and Economic Growth* (E.O. 13921), which requires the Secretary of Commerce to identify geographic areas containing locations suitable for commercial aquaculture. The purpose of the proposed action is to apply a science-based approach to identify AOAs in federal waters of the Gulf of Mexico. The goal of identifying AOAs is to promote American seafood competitiveness, food security, economic growth, and support the facilitation of the development of domestic commercial aquaculture, consistent with sustaining and conserving marine resources and applicable laws, regulations and policies.

The proposed action is necessary to meet the directives of E.O. 13921 to address the increasing demand for seafood; facilitate long-term planning for marine aquaculture development; and address interests and concerns regarding offshore marine aquaculture siting.

Leading up to Public Scoping

Executive Order 13921, *Promoting American Seafood Competitiveness and Economic Growth,* directed NOAA to lead a multi-agency, public planning effort to identify ten Aquaculture Opportunity Areas (AOAs) over the course of seven years and assess the impacts of siting aquaculture in those areas. NOAA Fisheries selected the federal waters in the Gulf of Mexico as one of the first two geographic regions in which to identify AOAs. The other geographic region selected by NOAA Fisheries is the Southern California Bight.

Pre-scoping

Prior to beginning – and in order to inform – the scoping process for this PEIS, NOAA's National Ocean Service's National Centers for Coastal Ocean Science (NCCOS) initiated a marine spatial planning process to assist agency decision makers in identifying areas that may be suitable for locating AOAs as directed by E.O. 13921. This spatial modeling approach was specific to the planning goal of identifying discrete aquaculture development opportunities for the cultivation of finfish, macroalgae, shellfish, or a combination of species.

This work resulted in an *Aquaculture Opportunity Atlas for the U.S. Gulf of Mexico*,[2] which was published in November 2021 and is referred to herein as "the Atlas".

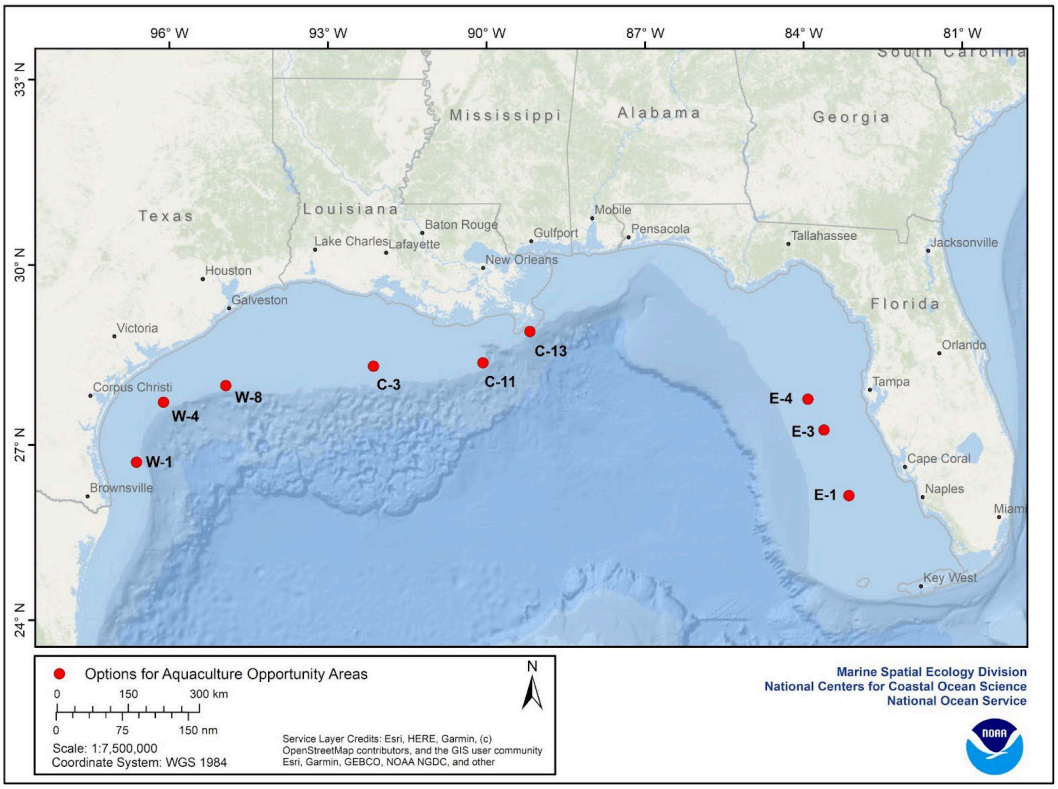
The Atlas used a precision-siting, scoring, and ranking process to narrow the suitability analysis results to nine, 500 to 2,000-acre (202 to 809 hectare) "AOA options" that have high potential suitability for an AOA in the Gulf of Mexico: Three off the coast of Texas, three off the coast of Louisiana, and three off the west coast of Florida, depicted in Figure 3.30 on pages vii and 133 of the Atlas.

SPATIAL MODELING FOR ATLAS INCLUDED:

- over 200 data layers related to administrative boundaries, national security, navigation, energy and industry infrastructure, commercial and recreational fishing, natural and cultural resources, oceanography and more
- goal was to identify discrete areas that are 500-2,000 acres that met industry requirements and may be suitable for all aquaculture types

The Atlas includes peer-reviewed technical information that may be used to assist agency decision makers in identifying areas that may be suitable as AOAs. The Atlas does not reflect any agency decision to identify specific AOAs or foreclose the agency's ability to evaluate alternate locations for consideration as AOAs. The Atlas is a technical document providing geospatial analysis information that will be used as one source of information to assist the agency in identifying one or more AOAs within federal waters of the Gulf of Mexico. The information gathered through early scoping and formal public scoping is critical in assisting NOAA Fisheries with identifying one or more AOAs in federal waters of the Gulf of Mexico.

[2] Riley, K.L., Wickliffe, L.C., Jossart, J.A., MacKay, J.K., Randall, A.L., Bath, G.E., Balling, M.B., Jensen, B.M., and Morris, J.A. Jr. 2021. An Aquaculture Opportunity Area Atlas for the U.S. Gulf of Mexico. NOAA Technical Memorandum NOS NCCOS 299. Beaufort, NC. 545 pp. *https://doi.org/10.25923/8cb3-3r66*, available online at *https://repository.library.noaa.gov/view/noaa/33304*.



NINE LOCATIONS POTENTIALLY SUITABLE FOR AOAS

Early scoping

After NCCOS published the Atlas in November 2021, NOAA Fisheries began the early scoping process for the PEIS. NOAA Fisheries reached out to federally-recognized tribal governments and to other federal agencies that serve a role in permitting or authorizing aquaculture in federal waters to advise them about the upcoming PEIS, gauge their interest in being involved and begin thinking through the content and scope of the PEIS.

This outreach led to the identification of cooperating agencies and the formation of an **interagency steering committee, comprised of members from NOAA Fisheries, EPA, BOEM, USACE, USAF and the USFWS,** that will work collaboratively to develop the PEIS. Additionally, **within NOAA Fisheries, a team of species, habitat, fisheries, ocean and aquaculture engineering, disease, genetics, economic, cultural and risk assessment experts was formed** to provide guidance and technical assistance during the development of the PEIS.

Other outreach NOAA Fisheries conducted during early scoping to broaden public awareness of the Atlas and PEIS process included: identifying and connecting with over 400 leaders, liaisons, and members of communities located in close proximity to the nine potential AOA locations; and presenting on the initiative at the 2022 Aquaculture America conference in San Diego, California, at Gulf of Mexico Fishery Management Council and Advisory Panel meetings, and on a national public webinar.

Formal Scoping Process

The formal public scoping process for the Gulf of Mexico AOA PEIS began on June 1, 2022, with the publication of a Notice of Intent in the Federal Register, and concluded 60 days later on August 1, 2022. This crucial step in the Gulf of Mexico AOA PEIS process was the public's first formal opportunity to provide feedback on the nine potentially suitable AOA locations identified in the Atlas and the scope and content of the PEIS. The comments received during public scoping will assist NOAA Fisheries in shaping the scope and content of the PEIS. These comments will also assist NOAA Fisheries in better assessing the impacts of identifying AOAs in any of the nine potentially suitable locations for AOAs in the Gulf of Mexico, so that the agency can make an informed decision about which area(s) should be further evaluated in the draft PEIS.

The public was invited to submit written comments by mail and through the www.regulations.gov e-portal within the 60-day period. Verbal comments were accepted at three virtual public scoping meetings, held on the evenings of June 8, June 16 and July 12, 2022.

Public outreach

NOAA Fisheries distributed information about the opportunity to comment on the AOA planning process to Southeast Region stakeholders, to those with national-scale interest in aquaculture and aquaculture planning, and to community leaders and organizations geographically close to the nine potentially suitable AOA locations identified in the Atlas.

Coinciding with the publication of the Notice of Intent, NOAA Fisheries published a one-stop-shop website for the Gulf of Mexico AOA PEIS, and notified national contacts, regional stakeholders, and communities near the nine potential AOA locations about the public comment opportunity via a fishery bulletin, email notifications, print and media interviews, and Twitter.

There was significant media interest in the Gulf of Mexico AOA PEIS public scoping process in the Tampa, Sarasota and Ft. Myers, Florida region. Initially in that area, there was some confusion between the AOA PEIS planning process and the Ocean Era Velella Epsilon finfish aquaculture project (Velella Epsilon project) that is undergoing permitting off the coast of Sarasota. It was evident that submitters were under the impression they were providing comments on the issuance of permits for the Velella Epsilon project.

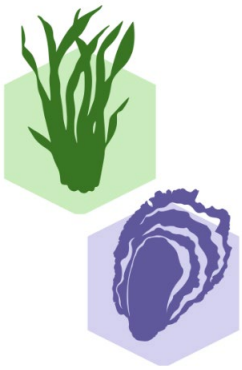
To address this confusion, NOAA Fisheries used public engagement opportunities in that area to clarify that the AOA planning process was separate from the Ocean Era Velella Epsilon pilot project permitting process.

Public meetings

NOAA Fisheries hosted three virtual public scoping meetings on the evenings of June 8, June 16 and July 12, 2022. Ninety-two (92) people participated in the meetings, which were held virtually due to COVID-19 health and safety guidance. The majority of participants (54), which included NOAA Fisheries staff and contractors, were from Florida. Nineteen (19) meeting participants provided 25 verbal submissions; an individual verbal submission in some cases contained multiple comments related to one or more topic. The meetings were recorded and the meeting slides and transcripts are posted on the Gulf of Mexico Aquaculture Opportunity Area website.

Meeting Participation

1. Florida:	54
2. Alabama:	1
3. Mississippi:	2
4. Louisiana:	8
5. Texas:	1
6. Other States:	24
7. Unknown:	2
Total:	92



NOAA Fisheries presented the AOA initiative to the Gulf of Mexico Fishery Management Council on June 21, 2022, in Ft. Myers, Florida, which is geographically close to location E-1 in the Atlas. The meeting included an opportunity for public comment and the Council provided those comments to NOAA Fisheries as part of the formal written comments the Council submitted during public scoping.

The continued presence of COVID-19 and NOAA Fisheries' COVID-19 guidance on group gatherings limited NOAA Fisheries' ability to conduct in-person scoping meetings in communities located near the nine potential AOA locations. Throughout the PEIS development process, NOAA Fisheries will monitor the current public health situation and utilize opportunities for in-person engagement, particularly with underrepresented communities in geographic proximity to locations being considered for AOAs.

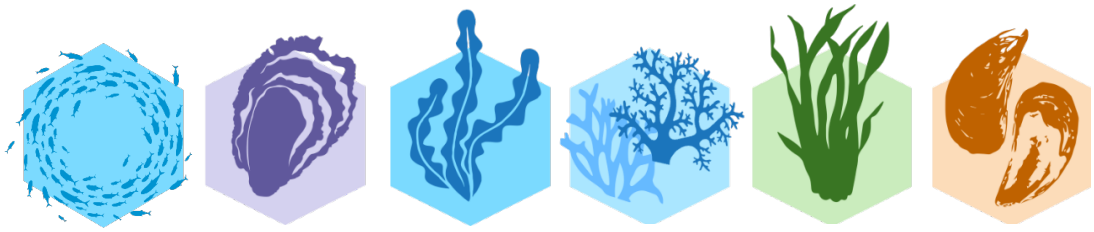
Comment analysis and Notice of Intent 11 prompts

In reviewing the written and verbal submissions received during the public comment period, NOAA Fisheries considered each submission and compiled all of the verbatim submissions into one document (Appendix A) for public access and review. In some cases, written submissions included attachments. Attachments submitted included drawings and schematics, photographs, newspaper articles and scientific publications. To keep the appendix size manageable and ensure that commenters' original thoughts and ideas are readily accessible, only attachments that included the submitter's original writings or drawings are included in this appendix. Attachments that were separate publications (e.g., newspaper or journal articles) are not included here but are publicly accessible online at www.regulations.gov.

For written submissions, NOAA Fisheries tracked, if provided, the geographic state the submission came from, the names of businesses and organizations that submitted comments, specific concerns about particular potential AOA locations, and general support for or opposition to the AOA process, if expressed. In the Notice of Intent, NOAA Fisheries requested information on eleven topical areas through a series of prompts. NOAA Fisheries sorted and binned individual comments under these eleven (11) prompts.

NOTICE OF INTENT 11 PROMPTS

1. THE SCOPE OF THE NEPA ANALYSIS, INCLUDING THE RANGE OF REASONABLE ALTERNATIVES AND HOW MANY OR WHICH LOCATIONS SHOULD BE CONSIDERED AND EVALUATED
2. THE TYPE OF AQUACULTURE (*E.G.,* FINFISH, SHELLFISH, SEAWEED, MULTI-SPECIES AQUACULTURE) THAT COULD BE SUPPORTED OR ANALYZED IN A PROPOSED AOA LOCATION;
3. ECOLOGICALLY, ECONOMICALLY AND SOCIALLY SUITABLE SPECIES AND GEAR FOR AQUACULTURE THAT COULD BE ANALYZED FOR A PROPOSED AOA LOCATION;
4. MONITORING AND REPORTING REQUIREMENTS FOR OWNERS AND OPERATORS OF AQUACULTURE FACILITIES THAT COULD MITIGATE IMPACTS TO MANAGED AND NON-MANAGED FISHERY RESOURCES, PROTECTED SPECIES, HABITAT, WATER QUALITY, STORM, NAVIGATION, ECONOMIC, SOCIAL, CULTURAL AND OTHER IMPACTS;
5. POTENTIAL ADVERSE, BENEFICIAL, NEUTRAL, OR CUMULATIVE IMPACTS TO BIOLOGICAL, PHYSICAL AND ECOLOGICAL RESOURCES, INCLUDING POTENTIAL INTERACTIONS WITH MARINE MAMMALS AND OTHER SPECIES PROTECTED BY THE MARINE MAMMAL PROTECTION ACT OR ENDANGERED SPECIES ACT, ESSENTIAL FISH HABITAT DESIGNATED UNDER THE MAGNUSON-STEVENS ACT, AND OTHER SENSITIVE, MANAGED, OR PROTECTED HABITATS IN THE GULF OF MEXICO;
6. POTENTIAL ADVERSE, BENEFICIAL, NEUTRAL, OR CUMULATIVE IMPACTS TO THE SOCIAL, ECONOMIC, AND CULTURAL ENVIRONMENT, INCLUDING COMMERCIAL AND RECREATIONAL FISHING INDUSTRIES AND COASTAL COMMUNITIES;
7. PROMOTION OF ENVIRONMENTAL JUSTICE, DIVERSITY, EQUITY, AND INCLUSION WHEN CONSIDERING ALTERNATIVE AOA LOCATIONS AND OTHER ASPECTS OF OFFSHORE AQUACULTURE DEVELOPMENT IN FEDERAL WATERS OF THE GULF OF MEXICO;
8. UNDERSERVED COMMUNITIES AND UNDERREPRESENTED GROUPS, AND/OR REGIONS AND COMMUNITIES THAT COULD EITHER BENEFIT FROM OR BE ADVERSELY IMPACTED BY THE SITING OF AOAS IN THE GULF OF MEXICO;
9. THE IMPACT OF CLIMATE CHANGE OR CHANGING ENVIRONMENTAL CONDITIONS (*E.G.,* STORM INTENSITY, SEA LEVEL RISE, WATER QUALITY) ON SITING AND OTHER ASPECTS OF AQUACULTURE;
10. CURRENT OR PLANNED ACTIVITIES IN OR NEAR THE AREAS HIGHLIGHTED IN THIS NOTICE AND THEIR POSSIBLE IMPACTS ON AQUACULTURE DEVELOPMENT OR THE IMPACT OF AQUACULTURE DEVELOPMENTS ON THOSE ACTIVITIES; AND
11. OTHER TOPICS RELEVANT TO THE PROPOSED ACTION AND ITS IMPACTS ON THE HUMAN ENVIRONMENT.

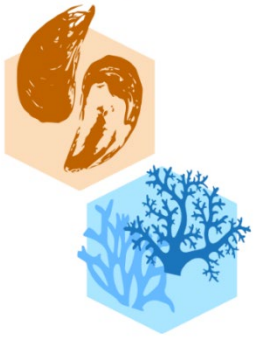


Commenters were not required to respond to these prompts, but chose to do so. The eleventh prompt was a catchall for other potentially relevant topics not captured in the previous ten prompts. In analyzing these comments, it is important to acknowledge that the results of public scoping and comment periods such as this one are not statistically representative of any particular group or population of people.

In reviewing and analyzing the written and verbal submissions, NOAA Fisheries' primary focus was the content of each submission, not necessarily the number of times a particular issue or concern appeared.

Written and Verbal Submissions that Identified with a State

1. Florida:	107
2. Alabama:	0
3. Mississippi:	0
4. Louisiana:	10
5. Texas:	2
6. Unknown:	92



That being said, the number of opinions for or against potential AOA locations and aquaculture types were noted – particularly those from local communities or user groups operating near the nine potential locations. This PEIS is a planning document and understanding the needs and concerns of local communities and ocean user groups is critical to identifying one or more AOAs that may be ecologically, economically and socially suitable for commercial aquaculture.

Summary of Comments

Of the 216 total written and verbal comments received by NOAA Fisheries, approximately 173 comments (80.1%) expressed opposition to the identification of AOAs in some way (whether by objecting to the process of identifying AOAs, specific locations, or specific aquaculture types, most commonly finfish aquaculture). Approximately ten (10) comments (4.6%) expressed support for the identification of AOAs in some way. Seven (7) comments (3.2%) addressed the NPDES permit issued for the Velella Epsilon project. Nineteen (19) written submissions (8.8%) were identical letters from a letter writing campaign opposing the AOA identification process and supporting the no action alternative. One (1) written submission was a petition from the organization, Don't Cage Our Oceans opposing "aquaculture facilities everywhere" with 8,272 signatures. A second petition was submitted from the organization Healthy Gulf asking NOAA Fisheries not to move forward with identifying AOAs, and was signed by 242 supporters.

A significant portion of the written and verbal submissions were from individuals and organizations from the state of Florida. One-hundred forty eight (148) of the 216 submissions (69%) identified a single state of origin. Of those 148 submissions, 107 (72%) were from individuals or organizations from the state of Florida.

NOAA Fisheries received fewer submissions from members of the public in Louisiana (10 submissions) and Texas (2 submissions) as compared to Florida, though not all commenters identified with a state. Some organizations that

Types of organizations that submitted comments

Local community organizations	2
Homeowner organizations	1
Commercial Fishing Organizations	3
Recreational Fishing Organizations	3
Shipping Industry Organizations	1
Environmental Organizations	11
Food/Farming Health & Safety Organizations	4
Animal Welfare Organizations	7
Aquaculture Industry Businesses/Organizations	4
Tourism Organizations	1
Political Organizations	2
Local Restaurants/Seafood Businesses	5
Local Government	1
State Government	2
Federal Government	1

submitted comments represented multiple Gulf coast states. For example, Healthy Gulf provided a single written submission that included a petition signed by 242 supporters, almost all of whom are from Gulf coast states, including Texas and Louisiana. No submissions came from individuals or organizations identifying with Mississippi or Alabama (though the two petitions included signatories from those states).

Multiple government entities, businesses and organizations submitted written and verbal comments. Some of these businesses, organizations and government agencies represented a small geographic area, while others represented states, regions or the entire nation.

Written and verbal submissions, considered as a whole, addressed every one of the 11 prompts NOAA Fisheries identified in the Notice of Intent. These prompts were designed to obtain information that would be helpful to NOAA Fisheries in determining the scope of and alternatives for the draft PEIS. What follows is a summary of the comments relevant to each prompt.

1. Alternatives and Scope of the PEIS

Regarding alternatives, individuals and organizations in Florida expressed opposition to the identification of sites E-1, E-3 and/or E-4 as potential AOAs. Many of these comments focused on opposition to the development of offshore finfish aquaculture and concerns that finfish aquaculture could exacerbate the red tide events that Florida has experienced in recent years.

The commercial shrimping industry in Louisiana requested that NOAA Fisheries remove C-11 and C-13 locations from further consideration or relocate these sites to minimize impacts to shrimpers, as these two locations overlap with high and moderate commercial shrimping activity. Other commenters objected to these two areas, stating that they are located within the Gulf of Mexico hypoxic, or "dead zone". Multiple comments, including the 19 identical letters, expressed support for the no action alternative and stated that no AOAs should be identified in the Gulf of Mexico.

Comments in support of the AOA identification process expressed broad support for all of the nine potential AOA locations, though there were concerns expressed about the financial feasibility of any sites located further than 60 nautical miles from shore (of which there is only one: C-3).

PROMPT FROM THE NOTICE OF INTENT

"THE SCOPE OF THE NEPA ANALYSIS, INCLUDING THE RANGE OF REASONABLE ALTERNATIVES AND HOW MANY OR WHICH LOCATIONS SHOULD BE CONSIDERED AND EVALUATED."

Commenters also proposed a wide range of additional alternatives, including the following:

- Consider decommissioned oil and gas platforms as AOA locations;
- Consider depths shallower than 50 meters for aquaculture;
- Consider locations much farther from shore, in deeper waters;
- Consider nothing shallower than 90 meters;
- Enhance stocking of native fish in order to enhance wild stocks of fish that can be then wild-caught;
- Increase taxes on seafood imports to address the seafood trade deficit (as opposed to identifying AOAs);
- Relax commercial fishing regulations to allow for more wild-caught fish;
- Promote plant-derived protein sources rather than seafood;
- Prohibit aquaculture in federal waters;
- Prohibit finfish aquaculture in federal waters;

- Explore land-based aquaculture opportunities;
- Look for alternatives other than aquaculture to satisfy the goals of the Executive Order;
- Construct underwater structures and artificial reefs to enhance native fish populations as an alternative to aquaculture;
- Consider only small-scale shellfish aquaculture;
- Co-locate AOAs with national marine sanctuaries and marine protected areas that already restrict commercial fishing;
- To avoid or minimize impacts on the endangered Rice's whale, exclude a 20-kilometer area shoreward of the 100 meter isobath and seaward of the 400 meter isobath in the AOA study area in the western and central Gulf (i.e., west of the core distribution area), as well as the portion of the AOA study area to the south of the core distribution area, to account for species movement, and avoid, when possible, siting in areas seaward of the 400 meter isobath, to reduce vessel transits across the whales' habitat; and
- Instead of aquaculture focus on supporting independent fishers and co-ops, as their small businesses continue to recover from the ongoing COVID pandemic.

Other comments questioned the premise for the PEIS, stating that there is not a need for additional protein sources in the U.S. and thus not a need for aquaculture.

Regarding the scope of analysis in the PEIS, many comments focused on the need for detailed analyses of potential impacts from offshore finfish aquaculture, particularly cumulative effects, ecological effects and socioeconomic effects. The majority of comments stated that offshore finfish farming should not occur in the Gulf of Mexico. Comments asked that the PEIS:

- Include an objective assessment of all potential direct, indirect and cumulative impacts of any activity associated with offshore aquaculture development, as well as the cumulative impacts of not identifying AOAs;
- Assess the impacts to all species, not just those listed under the Endangered Species Act;
- Include a mechanism to allow for the Atlas to be updated on a regular basis to reflect new information about changing ocean uses and the changing climate;
- Include metrics for measuring the social, economic and environmental suitability of AOAs, and provide more clarity on what would make an AOA suitable in all three of these categories;
- Provide an overarching global context for the expansion of domestic U.S. aquaculture and explore AOAs from the context that humans need to begin to source more of our food from marine aquaculture;
- Identify that aquaculture may not be essential and in some cases may be contrary to the objectives of sustainable development;
- Identify that the primary interest in offshore AOAs will be from companies wanting to farm high-trophic level finfish that require high animal protein inputs, not shellfish and seaweed;
- Consider the full life-cycle impacts of aquaculture facilities (i.e., construction, operation, maintenance and decommissioning);
- Consider the tradeoffs between an ocean-based aquaculture facility and a land-based aquaculture facility;
- Consider the Velella Epsilon finfish aquaculture project off the coast of Sarasota when evaluating cumulative impacts;
- Include harmful algal bloom modeling;
- Discuss impacts associated with uncertainty and unplanned catastrophic events and the need for emergency response planning;

- Consider and assess impacts to national marine sanctuaries;
- Allow for and consider only small-scale shellfish aquaculture;
- Assess the potential improvements in consumer health that could result from increased domestic seafood consumption and use existing methodologies to project the number of American consumers' lives that could be saved for a range of offshore farm production levels;
- Consider impacts to commercial and recreational fishers if AOAs become places that can no longer be fished;
- Preclude the issuance of a Finding of No Significant Impact for future projects in an AOA and require future projects to prepare a site-specific environmental impact statement;
- Consider whether a meaningful impact assessment can be conducted if the number, size and scope of future aquaculture facilities in an AOA has not been determined;
- Evaluate the presence of existing shoreside infrastructure to support aquaculture, including transportation, fish processing, storage, shipping and marketing when selecting preferred locations; and
- Consider existing state and federal regulations and whether they are sufficient to address the environmental impacts of finfish farming.

Other comments stated NMFS had a responsibility to conduct consultations to consider the effects of identifying one or more AOA in the Gulf of Mexico, including:

- NMFS should conduct programmatic consultations under the Endangered Species Act and essential fish habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act as part of the PEIS development process;
- NMFS should conduct consultations under the Marine Mammal Protection Act, Coastal Zone Management Act, National Marine Sanctuaries Act and Migratory Bird Treaty Act as part of the PEIS development process.

2. Type of Aquaculture

The majority of comments related to the type of aquaculture that could be supported or analyzed in a proposed AOA objected to finfish aquaculture.

PROMPT FROM THE NOTICE OF INTENT

"THE TYPE OF AQUACULTURE (E.G., FINFISH, SHELLFISH, SEAWEED, MULTI-SPECIES AQUACULTURE) THAT COULD BE SUPPORTED OR ANALYZED IN A PROPOSED AOA LOCATION."

It was also suggested that additional site-specific analysis be conducted to assess whether locations with lower current speeds (W1, W4 and C11) or higher nutrient levels might be more suited to macroalgae, while locations with higher current speeds might be more suited for finfish. Comments noted that finfish aquaculture in waters with lower current speeds or that are relatively shallow could benefit from having multiple smaller aquaculture operations rather than one large farm to protect bottom habitats and benefit animal health.

Multiple comments encouraged the use of integrated multi-trophic aquaculture (growing multiple species together in a way that the waste product from one species can be used to grow a different species), as well as co-location of farms growing different species in AOAs. Some of these comments described potential benefits to food security, energy security, tourism, recreation and marine conservation associated with integrated multi-trophic aquaculture.

Some comments encouraged consideration of all types of marine aquaculture; others wondered if shellfish and seaweed growers would be likely to pursue projects so far from shore. Others noted that finfish aquaculture has the greater potential for ecological impacts, while shellfish and seaweed aquaculture tend to have neutral and sometimes positive ecological effects. Along these lines, one comment suggested that small-scale shellfish operations might be considered acceptable, whereas large-scale finfish operations may not.

3. Species and Gear

PROMPT FROM THE NOTICE OF INTENT
"ECOLOGICALLY ECONOMICALLY, AND SOCIALLY SUITABLE SPECIES AND GEAR FOR AQUACULTURE THAT COULD BE ANALYZED FOR A PROPOSED AOA LOCATION."

Comments on species and gear covered a wide range of topics. Regarding gear, some comments requested that NOAA Fisheries explore a wide range of finfish net pen designs, sizes and mooring rigs, including grid moorings and single-point moorings. Other comments asked that novel approaches and innovative gear technologies be encouraged. One comment suggested the construction of artificial reefs under finfish net pens in order to encourage the uptake of fish waste.

Multiple commenters asked that the PEIS address the potential for gear failure (particularly finfish net pens or cages) due to poor construction and maintenance, unintentional staff errors, defects, as well as due to storm events in the Gulf of Mexico.

Regarding species, many comments requested that no finfish aquaculture be considered or allowed in the Gulf of Mexico. One comment requested that the PEIS analyze the types of finfish species already commercially cultured in tropical waters, such as cobia, amberjack, snappers, groupers and tuna. Additional comments did not list specific species, but more broadly requested that no genetically sterilized or modified species be cultured in public waters.

4. Monitoring and Reporting

The comments received related to this prompt offered many recommendations for monitoring and reporting requirements, including baseline monitoring prior to construction (chemical analysis of sediment, video monitoring, and surveys of pathogens) so that monitoring conducted during farm operations can be compared to the "pre-farm" condition.

Other recommendations included monitoring Chlorophyll-a (CHIChl-a), colored dissolved organic matter, and presence of harmful algal species. One submission suggested on-site and real-time water quality, disease and gear condition monitoring. Multiple organizations, including the Marine Mammal Commission, the Animal Welfare Institute and Ocean Era/Ocean Stewards Institute, recommended that NOAA Fisheries implement a comprehensive long-term monitoring program to document interactions between marine mammals and aquaculture operations. Shipping industry representatives requested monitoring for compliance with U.S. Coast Guard navigational safety requirements (charting, marking, lighting and electronic technologies).

Commenters expressed concerns about disease and disease spread in aquaculture facilities and requested on-site monitoring and supervision by veterinarians of veterinary drug administration, including antibiotics and antifungals.

PROMPT FROM THE NOTICE OF INTENT

"MONITORING AND REPORTING REQUIREMENTS FOR OWNERS AND OPERATORS OF AQUACULTURE FACILITIES THAT COULD MITIGATE IMPACTS TO MANAGED AND NON-MANAGED FISHERY RESOURCES, PROTECTED SPECIES, HABITAT, WATER QUALITY, STORM, NAVIGATION, ECONOMIC, SOCIAL, CULTURAL AND OTHER IMPACTS."

One comment from the aquaculture industry suggested that tiered monitoring requirements be implemented, such that the number of monitoring locations and the frequency of monitoring increase with any increases in measured impacts. Other comments raised concerns about the distance from shore of the potential AOA locations and the complications that distance could create for effectively monitoring facilities and federal agency response time should any issues arise during routine monitoring.

Other monitoring suggestions included establishing monitoring plans by federal agencies to ensure the timely removal of facilities and to ensure that the ocean and seafloor are returned to pre-aquaculture conditions (similar to what is required for oil and gas facilities). Comments requested that federal agencies ensure that aquaculture industry companies overseeing projects be monitored to ensure that they "maintain the financial and operational capability, integrity, and competence" to properly decommission aquaculture operations, and that aquaculture facility operators have sufficient financial resources to pay for remediation of impacts from natural disasters, disease and escapement.

While most comments on monitoring focused on ecological issues, some comments addressed monitoring needs related to social and economic issues and suggested bringing stakeholders and coastal communities together to develop a suite of metrics to evaluate social and economic success/failure of aquaculture in potential AOAs.

5. Ecological Impacts

NOAA Fisheries received more comments that address this prompt than any other. Comments on the ecological impacts of aquaculture in potential AOAs heavily focused on impacts associated with finfish farming, though some comments referenced aquaculture more broadly.

It is challenging to summarize the extensive nature of these comments. However, this summary provides a general description of the topics and themes raised, and the verbatim comments provided in Appendix A allow readers to delve more deeply into these comments.

Most of the comments submitted on this topic focused on discussion of direct, indirect and cumulative adverse ecological impacts, though some commenters discussed beneficial or neutral impacts. Many commenters stated the need to understand the cumulative adverse ecological impacts that offshore finfish aquaculture could have given the other activities occurring in the Gulf of Mexico.

Water Quality and Harmful Algal Blooms

The topic of nutrient (nitrogen and phosphorous) discharges associated with finfish aquaculture came up frequently in comments. A primary concern was the potential for additional nutrient discharges from finfish farms (due to fish waste and uneaten fish feed) to fuel and/or exacerbate red tide events along Florida's West Coast. Commenters stated that red tide events begin

offshore and move into the near shore, and identified a need for water quality monitoring in and around finfish farms as well as modeling for harmful algal blooms.

PROMPT FROM THE NOTICE OF INTENT

"POTENTIAL ADVERSE, BENEFICIAL, NEUTRAL OR CUMULATIVE IMPACTS TO BIOLOGICAL, PHYSICAL AND ECOLOGICAL RESOURCES, INCLUDING POTENTIAL INTERACTIONS WITH MARINE MAMMALS AND OTHER SPECIES PROTECTED BY THE MARINE MAMMAL PROTECTION ACT OR ENDANGERED SPECIES ACT, ESSENTIAL FISH HABITAT DESIGNATED UNDER THE MAGNUSON-STEVENS ACT, AND OTHER SENSITIVE, MANAGED, OR PROTECTED HABITATS IN THE GULF OF MEXICO."

Commenters stated that nutrient levels in the Gulf of Mexico are already too high, causing "dead zones", and the system cannot handle additional nutrient inputs. One comment noted concerns about June 2022 algal blooms of Trichodesmium, *Pseudo-nitzschia spp.*, *Peridinium quinquecorne*, *Pyrodinium bahamense*, and *Lyngbya spp.* in Pinellas County, Florida. Other comments described concerns about existing nutrient runoff from land-based agriculture in Florida, existing problems with algal blooms, and cumulative effects that nutrient discharges from offshore could cause in combination with land-based sources. Comments raised concerns about the ability of the NPDES permits issued by the EPA for offshore aquaculture projects to adequately address nutrient and other discharges occurring in an open water setting because facilities would not treat these discharges before they enter the surrounding environment.

Comments stating that offshore finfish aquaculture would have a neutral impact to water quality focused on the water quality monitoring required through the permitting process and the fact that water quality monitoring on farms would catch any problems and allow them to be addressed. One comment proposed that water quality monitoring programs at offshore aquaculture facilities should be designed to increase monitoring intensity and frequency should any water quality-related issues be detected.

Marine Mammals

Related to marine mammal cumulative, direct and indirect impacts, commenters expressed concerns about entanglement, sea grass habitat degradation due to nutrient enrichment (and consequent reductions in food available for manatees), ship strikes, marine debris (entanglement in and ingestion of) and aquaculture facilities serving as fish aggregating devices (FADs).

Comments discussed the endangered Rice's whale and recommended that NOAA Fisheries incorporate the results of ongoing scientific studies (e.g., a forthcoming revised Biologically Important Area for the species), and the work to designate critical habitat for the species, into the draft PEIS. There was also a request to avoid placing AOAs in certain depth ranges (discussed in under Prompt 1, Alternatives and Scope of PEIS) to protect the Rice's whale. Comments noted that the nine potential AOA locations do not overlap with either the Rice's whale's core distribution area in the eastern Gulf of Mexico or habitat suitable for Rice's whales in the central and western Gulf of Mexico, but also noted that understanding of this species and its movements continue to evolve. These comments suggested the Rice's whale could move outside of its identified core habitat and it is possible that AOAs could be near Rice's whale migration routes or habitats.

Comments suggested a 10-knot speed restriction for vessels during daylight hours and no nighttime transit or transit during times of low visibility. Comments also suggested use of visual observers to monitor the vessel strike avoidance zone (500 meters). Other recommendations focused on interactions between dolphins and aquaculture facilities and recommended using

lessons learned from commercial and recreational fishers in the Gulf of Mexico, as well as from aquaculture facilities in other countries, to develop non-lethal measures to prevent dolphins from interacting with aquaculture gear (incidentally or intentionally).

One comment suggested that, due to permit requirements for vessel speed, tightness of lines, and monitoring for marine mammals presence, the direct, indirect and cumulative impacts of offshore aquaculture facilities on marine mammals would be neutral.

Other Species and Ecosystem Impacts

Comments stated that the Atlas only focused on species listed under the Endangered Species Act, and stated that the PEIS should consider direct, indirect and cumulative impacts to all species. Comments raised concerns about sea turtles, manatees, migratory fish including sharks, commercially and recreationally important fish species (including but not limited to shrimp, grouper, red snapper), migratory birds, and all threatened and endangered species.

Commenters asked for research and modeling to understand the effects of finfish aquaculture on marine ecosystem food chains. Comments also stated that offshore finfish aquaculture facilities can serve as FADs, attracting predators and other marine species and thus altering their behavior, potentially resulting in their injury or entanglement or causing ripple effects through the food chain. Comments asked how animals attracted to an aquaculture facility would be managed and/or deterred.

Other comments stated that aquaculture does not cause the same degree of bycatch impacts to marine species that commercial fishing does and that the FAD effect is neutral to marine species. These comments stated that there is a double-standard when it comes to FADs, as artificial reefs and purposeful FADs are considered beneficial for marine species, whereas aquaculture facilities serving as FADs are considered to cause an elevated risk to marine mammals from recreational vessel strikes.

Noise and Light

Comments on this topic stated that the PEIS should analyze the effects of noise and light from offshore aquaculture facilities on species. Comments stated that noise causes impacts and behavior changes in marine mammals and fish; and that lights used at facilities can cause impacts to migratory birds, turtles, fish and other species.

Forage Fish

Comments on this topic identified the indirect effects of finfish aquaculture on forage fish populations, which are harvested to make fishmeal and oil that are then incorporated into feed used by aquaculture producers. Comments stated that offshore finfish aquaculture leads to overfishing of forage fish, which serve as primary food sources for many species of fish, birds and marine mammals.

Disease and Pathogen Transmission

Comments raised a multitude of concerns related to disease transmission between cultivated fish and wild populations of fish. Some comments identified disease transmission concerns with shellfish as well. Commenters mentioned skin fluke parasites, sea lice, bacterial and fungal infections, Saprolegnia, *Vibrio anguillarum*, *Yersinia ruckeri*, *Pseudomonas anguilliseptica*, and *Pseudomonas edwardsielloosi* as diseases and pathogens of concern.

Other comments focused on concerns regarding pharmaceuticals used to manage disease outbreaks when they occur. Comments referenced a variety of products that were of concern,

including but not limited to, hydrogen peroxide, antibiotics (including sulfamide, tetracycline, and thiamphenicol-type antibiotics), antifungals, organophosphates, cypermethrin, pharmaceuticals intended to accelerate growth, and pesticides and herbicides. Comments repeatedly raised concerns about the potential for offshore finfish aquaculture to cause antibiotic resistance in organisms that live in bottom and other marine habitats.

Regarding disease transmission, comments also stated that open ocean aquaculture has ecological benefits over land-based raceway or pond systems, including the unlimited supply of clean, oxygenated seawater, which reduces the need for antibiotics in offshore systems.

Genetics and Escaped Fish

Comments stated a wide variety of concerns about escaped fish from offshore finfish aquaculture farms, including but not limited to:

- The risk of introducing non-native and/or invasive species to an ecosystem and having a negative impact on native species (food competition, predation, food-chain alterations);
- The risk of introducing a genetically-modified native species to an ecosystem that breeds with or competes for food with wild species – potentially degrading wild genetics or causing reductions in wild populations (by reducing fitness and overall survivability);
- The potential for hurricanes to destroy aquaculture gear and cause large-scale fish escapement;
- Unintentional accidents and operator errors that lead to fish escapement; and
- Bycatch of other species that could occur when trying to recapture escaped fish.

Additional comments stated that the effects of fish escapement on the surrounding ecosystem would be neutral because farms currently proposed are relying on native species, sourced from wild broodstock within an established radius of the farm site; and that local sourcing should negate any genetic impacts associated with escapes. One comment noted that the Florida Department of Agriculture and Consumer Services requires that all broodstock be collected within 100 kilometers of the intended finfish aquaculture site.

Seabed Disturbances

Comments stated concerns that offshore aquaculture could have adverse impacts to benthic (bottom) seafloor habitat as a result of disturbance associated with anchoring and sedimentation from fish waste and uneaten food. Commenters stated that the PEIS should fully assess impacts on hardbottom habitats – in particular corals and essential fish habitat – and that the PEIS should avoid, mitigate and offset the impacts of offshore aquaculture on essential fish habitat in accordance with the Magnuson-Stevens Fishery Conservation and Management Act. Comments noted that three (3) of the nine (9) potentially suitable AOA locations are within one to three kilometers of hardbottom habitats.

Other comments stated that it would have a neutral impact to benthic habitat quality because of the monitoring requirements associated with the permits for these facilities.

Marine Debris

Comments stated that offshore aquaculture projects have the potential to generate marine debris, including plastic waste, Styrofoam, cages, racks, trays, netting, floating structures and lines (ropes). These comments noted the high risk of hurricanes in the Gulf of Mexico and the potential for storms to dislodge equipment and create a marine debris problem. Comments also

discussed the effects of marine debris, including creating trash problems in the ocean and on beaches, and causing adverse health effects to marine organisms that ingest marine debris (e.g. microplastics).

Cumulative Impacts (broadly)

Comments on this topic stated broadly the need to consider the compounding or cumulative ecological impacts of identifying an AOA given the other aquaculture projects being proposed in the Gulf of Mexico, along with the development of offshore wind energy and new oil and gas leasing activities.

6. Socioeconomic and Cultural Impacts

Comments on the topic of potential socioeconomic and cultural impacts were detailed and wide-ranging. They discussed impacts to tourism, commercial fishing, recreational fishing, military activities, archeological resources, working waterfronts and domestic and international seafood markets. The majority of comments focused on concerns about the potential for offshore finfish aquaculture to have negative economic effects. Some comments identified questions and topics for further research. Some comments noted the potential beneficial economic impacts that offshore aquaculture could have regionally. Other comments suggested that NOAA Fisheries work with a wide variety of stakeholders and local communities to establish a set of metrics that could be used for measuring the social and economic suitability and/or success of aquaculture in AOAs.

Commercial and Recreational Fishing

Commenters stated a variety of concerns related to potential negative economic impacts of offshore finfish aquaculture on the commercial and recreational fishing industries. Broad, high-level comments focused on concerns that aquaculture would put local fishers out of work (or convert them to low-wage workers), reduce access to prime reef fish areas and traditional fishing grounds, and favor investors over fishers.

Multiple comments requested the inclusion of economic and spatial analyses to understand the economic impacts of offshore aquaculture (focused on finfish aquaculture) in the Gulf of Mexico, including:

PROMPT FROM THE NOTICE OF INTENT

"POTENTIAL ADVERSE, BENEFICIAL, NEUTRAL OR CUMULATIVE IMPACTS TO THE SOCIAL, ECONOMIC, AND CULTURAL ENVIRONMENT, INCLUDING COMMERCIAL AND RECREATIONAL FISHING INDUSTRIES AND COASTAL COMMUNITIES."

- Additional spatial analysis to show commercial fishing data overlaid with the nine potential AOA locations so that the industry can better comment on the nine locations;
- Analysis of commercial spear fishing data and the potential AOA locations;
- Broad analysis of the effects of aquaculture on wild caught fishers and what competition from imported seafood products in addition to farm-raised seafood will be;
- Development of a central repository of comprehensive, up to date economic data on the Gulf of Mexico shrimp industry that can be utilized to assess economic impacts; and
- Consideration of the economic effects of offshore aquaculture on commercial and recreational fishing within 100 miles of each potential AOA location.

Comments expressed concerns about the potential for price depression in the U.S. should a Gulf-farmed native species compete with the same species, wild-caught. Commenters cited

examples of price depression in Gulf-caught shrimp caused by the lower price of imported farmed shrimp, as well as price depression in wild-caught salmon in Alaska caused by salmon farming. Comments noted that the prices paid to commercial fishers are typically highly sensitive to the supply/demand relationship. Commenters expressed concerns that offshore aquaculture development in the Gulf of Mexico would come at the expense of commercial fishers and their jobs.

Comments addressed a range of commercially harvested species, including shrimp, red snapper, and grouper. Comments noted that the potential AOA locations off Florida are in good grouper, red snapper, and stone crab fishing areas. The shrimping industry asked that locations C-11 and C-13 be removed from consideration or relocated as they are proposed in areas of high commercial shrimping activity.

In addition to concerns about AOAs restricting access to fishing grounds, comments identified the indirect economic impacts to the shrimping industry that could result should offshore aquaculture cause ecological impacts to other species. Comments stated that, should offshore aquaculture cause adverse effects to species listed under the Endangered Species Act that are also impacted by commercial fishing industries, tougher restrictions on incidental take could be imposed or NOAA Fisheries could find that a fishing industry's incidental take puts a species in jeopardy as a result of the cumulative effects of commercial fishing and aquaculture. Another comment expressed concern that, should aquaculture adversely affect the red snapper stock, the shrimp fishery could become subject to additional restrictions that could have adverse economic effects on the industry.

Comments related to recreational fishing stated that the potential AOA locations off Florida are in grouper and red snapper fishing grounds, would impact recreational fishing access to these areas, and that recreational anglers were not adequately consulted during the identification of these potential AOA locations. Other comments referenced the tourism associated with recreational fishing and tarpon tournaments in southwest Florida and stated that the PEIS should consider the impacts of aquaculture on native fish populations that support the sportfishing industry.

One comment stated that the distance from shore of many of the nine (9) potential AOA locations in the Gulf of Mexico makes them unattractive to many recreational anglers, but that offshore aquaculture facilities, by serving as fish aggregating devices, can open up new opportunities for recreational anglers. This comment noted demonstration projects in Hawaii that were very popular with the local fishing community.

Domestic and International Seafood Supply Chains

Comments on this topic covered a wide range of economic supply chain issues. Some comments requested analysis of the domestic seafood supply chain in the PEIS and the socioeconomic impact of a pound of fish – either wild-caught or farmed – on the U.S. seafood supply chain, including wholesale and retail operations, markets, restaurants, trucking companies, and processing facilities. One commenter asked NOAA Fisheries to provide the estimated amount in today's dollars of the economic impact and opportunity that AOAs and aquaculture facilities are projected to create.

Some comments stated that aquaculture operations that prioritize selling to local /domestic markets would be beneficial economically, would increase workforce development, and would

create jobs. Comments also stated that traditional commercial fisheries cannot meet existing seafood demand and alternative sources are important to meet seafood demand.

Other comments questioned the statistics used to discuss the seafood trade deficit in the U.S., stating that what is considered imported seafood may actually be U.S.-caught seafood that is processed overseas and imported back into the United States. Commenters provided a variety of statistics on domestic and imported seafood, along with statements that offshore finfish aquaculture in the Gulf of Mexico would not help to address the U.S. seafood trade deficit.

Yet other comments discussed food systems and supply chains in the U.S. more broadly and the adverse economic impacts that land-based concentrated animal feeding operations have had on family farmers and workers. These comments stated that offshore finfish aquaculture facilities would have the same adverse economic impacts as the land-based concentrated animal feeding operations.

Privatization of Federal Waters and Externalities

Comments on this topic stated that offshore aquaculture farms in federal waters effectively privatize ocean space, limit access to public fishing grounds and create an economic gain for a few companies to the detriment of local communities. Commenters expressed concerns that companies will profit from the public's ocean space and not be held liable or responsible for externalities such as negative impacts to natural resources. Several comments asked questions about whether companies would be required to be bonded to ensure that they can cover remediation costs, or if an emergency fund would be established to cover the costs of unplanned events or accidents at offshore farms.

Tourism

Comments on tourism focused on the tourism economy on Florida's West Coast and the potential adverse economic impacts from the three potential AOA locations off Florida should they result in any adverse water quality impacts or contribute to red tide events. Commenters provided statistics on the tourism economy, stating that Lee County, Florida's tourism economy alone generates $3 billion annually. Another comment stated that a business damage assessment survey conducted from August to December 2018 in Bay, Broward, Charlotte, Collier, Hillsborough, Indian River, Lee, Manatee, Miami-Dade, Pasco, Pinellas and Sarasota counties found that the physical and economic damages related to the red tide event ongoing at that time were $130.6 million. Commenters cited the linkages between Florida's tourism economy and water quality and stated that the recreational and tourism industries in Florida depend on the idea that there is clean water in which to recreate and fish. Comments stated that the economic risk from a red tide event is greater than any potential economic benefit from an offshore finfish farm.

Working Waterfronts and Coastal Communities

Comments on this topic stated that the PEIS should consider community development and impacts to working waterfronts. Some comments recommended considering local perceptions of aquaculture in coastal communities prior to proposing AOA locations. Comments stated that local shoreside communities would not benefit from fish produced in offshore aquaculture facilities because those fish would be high-value food fish for restaurants and the sushi trade, and unaffordable for local Gulf Coast residents to buy or consume. Other comments stated that offshore aquaculture would support local communities and help to develop local workforces. One comment asked if NOAA would fund creation or improvement of infrastructure (transportation, processing, storage, shipping and marketing) to support aquaculture.

Military

Comments noted that the Atlas detailed the importance of the eastern Gulf of Mexico for military flight testing and training and stated that the PEIS should fully evaluate the impact of identifying AOAs on military training areas in Florida.

Archeological Resources

Comments on this topic stated that the PEIS should consider submerged archeological sites and concerns, and noted that there was a recent discovery of a rare and sensitive prehistoric burial site in offshore waters near Manasota Key (near Sarasota, Florida). Comments expressed concern that other submerged sites could exist and that increased boat traffic and other activities in AOAs could cause disturbance to these sites.

7. Environmental Justice, Diversity, Equity and Inclusion

PROMPT FROM THE NOTICE OF INTENT

"PROMOTION OF ENVIRONMENTAL JUSTICE, DIVERSITY, EQUITY AND INCLUSION WHEN CONSIDERING ALTERNATIVE AOA LOCATIONS AND OTHER ASPECTS OF OFFSHORE AQUACULTURE DEVELOPMENT IN FEDERAL WATERS OF THE GULF OF MEXICO."

The Florida Department of Agriculture & Consumer Services stated it believes offshore aquaculture can provide, "overwhelming cultural and economic benefits in working waterfront communities because the outputs will be additive for maritime industries and the seafood supply chain, including marinas, ports, seafood processing and distribution, seafood markets and other maritime retailers. Offshore aquaculture will also allow for new product development and domestic product sourcing. With this growth, we believe this industry can support the livelihoods of rural, economically depressed and underserved communities by diversifying skills and jobs of the maritime and seafood workforce." The agency asked NOAA Fisheries to consider locating AOAs in historically disenfranchised, underserved, or economically depressed communities that have working waterfronts and could benefit economically from an increase in seafood sector jobs while also supporting diversity, equity, and inclusion in the seafood sector.

8. Underserved Communities

PROMPT FROM THE NOTICE OF INTENT

"UNDERSERVED COMMUNITIES AND UNDERREPRESENTED GROUPS, AND/OR REGIONS AND COMMUNITIES THAT COULD EITHER BENEFIT FROM OR BE ADVERSELY IMPACTED BY THE SITING OF AOAS IN THE GULF OF MEXICO."

In addition to the Florida Department of Agriculture & Consumer Services comments under the previous prompt on environmental justice, diversity, equity and inclusion, the shrimping community expressed that it has been chronically disadvantaged and underserved as a result of federal policies related to the development of offshore wind, oil and gas, and now aquaculture. The shrimping community requested that NOAA Fisheries take "exceptional" steps to avoid and minimize any disproportionate and inequitable impacts to the Gulf shrimp community from offshore aquaculture.

9. Climate Change

The topic of climate change came up multiple times in different contexts within the public comments.

PROMPT FROM THE NOTICE OF INTENT

"THE IMPACT OF CLIMATE CHANGE OR CHANGING ENVIRONMENTAL CONDITIONS (E.G., STORM INTENSITY, SEA LEVEL RISE, WATER QUALITY) ON SITING AND OTHER ASPECTS OF AQUACULTURE."

Some comments focused on understanding and evaluating the carbon footprint associated with various offshore aquaculture activities. Comments requested that the PEIS consider the impact of aquaculture on climate change relative to other industries with lower greenhouse gas emissions, such as plant-based agriculture, floating solar farms and floating wind farms. Other comments focused on evaluating the carbon footprint associated with different phases of an offshore aquaculture facility. Commenters asked that NOAA Fisheries conduct a thorough life cycle analysis (i.e., facility design, construction, operation, maintenance and decommissioning) of the climate impact of aquaculture facilities (including evaluating the large carbon footprint associated with capturing, blending and shipping fish for fishmeal used to feed finfish, and evaluating the carbon footprint associated with other aspects of powering finfish aquaculture operations, including vessel transits to and from offshore aquaculture sites).

Other commenters raised the topic of climate change in a different context, focusing on the added stress that climate change currently has on Gulf of Mexico ecosystems and requesting that NOAA Fisheries consider the ways in which aquaculture could compound that stress. Commenters suggested that marine organisms stressed by climate change might be more susceptible to disease spread from finfish aquaculture facilities; and that finfish grown in net pens could become immunosuppressed and more susceptible to disease transmission as a result of climate warming-associated increases in water temperatures and pathogen presence in the Gulf of Mexico. Comments stated that the Gulf of Mexico ecosystem is already stressed and taxed due to climate change and cannot handle the additional stress that offshore finfish aquaculture would bring.

Yet other comments addressed climate change through the lens of increased storm intensity in the Gulf of Mexico, and expressed concerns about whether offshore aquaculture facilities could be designed to withstand increasingly severe hurricanes and tropical storms. The aquaculture industry commented that increasing storm intensity is an issue but that the technology exists to engineer gear and simulate storm events using computer modeling such that facilities can be designed to withstand increasingly intense storm events. Comments asked that NOAA Fisheries consider the impacts from gear failure and fish escapement during hurricanes and storms, and require the aquaculture industry to demonstrate in advance of construction that their gear can withstand wind and wave forces associated with Category 5 hurricanes.

One comment also discussed marine aquaculture and climate change from a different angle, stating that expanding food production from oceans is a way to help positively address global climate change.

10. Other Activities in Vicinity

PROMPT FROM THE NOTICE OF INTENT
"CURRENT OR PLANNED ACTIVITIES IN OR NEAR THE AREAS HIGHLIGHTED IN THIS NOTICE AND THEIR POSSIBLE IMPACTS ON AQUACULTURE DEVELOPMENT OR THE IMPACT OF AQUACULTURE DEVELOPMENT ON THOSE ACTIVITIES."

Comments mentioned multiple activities in the vicinity of the nine potential AOA locations that should be considered in the PEIS. These other activities include: (1) the Ocean Era Velella Epsilon pilot project, located in federal waters approximately 45 miles (72 kilometers) southwest of Sarasota, Florida, (2) offshore wind leasing areas off Texas and Louisiana, (3) proposed oil and gas development in Texas and Louisiana, (4) the development of Liquefied Natural Gas pipelines, (5) recreational and commercial fishing, and (6) commercial maritime navigation (particularly tug and barge traffic). In general, comments on this prompt described potential cumulative adverse impacts that identifying AOAs in the Gulf of Mexico could have when combined with the adverse impacts from these other ongoing or developing industries and activities.

11. Other Topics

This final prompt was included in the Notice of Intent to encourage comment on topics that may not have been captured in the previous ten prompts. Commenters raised a variety of other topics captured within this last prompt; these topics are presented below in no particular order.

PROMPT FROM THE NOTICE OF INTENT
"OTHER TOPICS RELEVANT TO THE PROPOSED ACTION AND ITS IMPACT ON THE HUMAN ENVIRONMENT."

Animal Welfare, Safety and Health

Multiple commenters addressed the issue of animal welfare as it relates to aquaculture, and specifically offshore finfish aquaculture. Commenters on this topic stated that raising fish in cages is cruel and inhumane and adversely affects the quality of life of migratory fish, like cobia and jacks, which are used to roaming. Comments stated that captive fish are defenseless against weather extremes and other environmental conditions because they cannot move locations, and that fish farms are unnatural and inhumane, exploiting the fish within them, causing high mortality rates due to overcrowding and disease, and endangering the large numbers of non-captive wildlife that are attracted to them. Commenters asked that the federal government promote the use of plant-based protein sources rather than animal-based protein sources.

Animal welfare organizations stated that fish farm producers should work to reduce the overall number of animals in the supply chain by shifting toward the use of alternative feed products with higher feed efficiency ratios. Instead of raising carnivorous farmed fish species that must be fed fish meal, comments stated that producers should raise herbivorous, extractive species. Comments stated that using fish meal and fish oil to feed herbivorous and omnivorous species should be prohibited, and that the use of fish meal and fish oil should be minimized when raising carnivorous fish.

Additionally, animal welfare organizations provided recommendations regarding quality of life for fish raised in offshore aquaculture facilities. These recommendations included; choosing offshore aquaculture locations carefully to ensure adequate flow of clean water; maintaining water quality at all time; allowing enough space for fish to exercise species-specific behavior; minimizing stocking densities and increasing the total swimmable water volume per individual

fish; and ensuring that the available space and volume reflect the fish species' needs (for example, schooling fish have space to school). Comments discussed the adverse health impacts associated with excessive stocking; including decreased growth; diminished nutritional uptake; reduction in feed conversion efficiency; fin erosion; gill damage; immunosuppression; inter-fish aggression; and disturbed movement activity.

Regulatory Framework for Aquaculture in Federal Waters

Comments on this topic expressed concern that existing regulations – both state and federal – for offshore aquaculture are not sufficient to ensure the protection of the environment, local economies, and public health and safety. Comments questioned NOAA Fisheries capabilities, in terms of staffing and budget, to oversee offshore aquaculture activities. Comments offered a variety of suggested rules and regulations, including but not limited to:

- Limiting aquaculture opportunities in AOAs only to individuals or small businesses;
- Prohibiting the use of antibiotics and pesticides;
- Requiring integrated multi-trophic aquaculture in AOAs (such that nutrients are cycled through different species grown);
- Restricting the number of farms in an AOA;
- Congressional action to set a national regulatory framework for marine aquaculture in federal waters;
- Establishing a clear, transparent, and accountable system of siting, permitting, regulating, and monitoring offshore aquaculture prior to any approval of offshore finfish aquaculture facilities;
- Requiring companies operating in an AOA to maintain escrow accounts sufficient to cover their liability should a catastrophe occur;
- Requiring aquaculture companies operating in the offshore environment to have $100,000,000 in insurance;
- Establishing rules and restrictions to manage disease spread, construction trash and fish waste/pollution; and
- Requiring gear capable of withstanding storms and adverse weather conditions, operational plans that enable farmers to submerge gear and require farmers to maintain gear in good working order at all times.

NOAA Fisheries Regulatory Authority

Comments on this topic stated that NOAA Fisheries' proposed action of identifying AOAs is illegal and that NOAA Fisheries does not have the legal authority to identify AOAs. These comments cited the Fifth Circuit Court of Appeals decision in Gulf Fishermens Association v. National Marine Fisheries Service (2020). Comments stated that Executive Order 13921 on Promoting American Seafood Competitiveness and Economic Growth circumvents Congress, and that Executive Orders cannot confer authorities on agencies. Comments stated that across several administrations NOAA Fisheries has acted in an activist manner, promoting industrial aquaculture by using its grant programs, such as the Saltonsall-Kennedy Program, to support aquaculture industry research and development, as well as aquaculture industry start-ups.

Navigation Safety

Comments on this topic focused on the recommendation for coordination between NOAA Fisheries, BOEM and the U.S. Coast Guard to gather detailed information about vessel traffic patterns before identifying suitable areas for aquaculture. Comments from the shipping industry indicated that existing safety fairways, established in the past, may not necessarily provide what is needed for safe navigation today, and that communication and collaboration is needed to

ensure that new and emerging marine industries such as aquaculture can safely coexist with maritime transportation.

Human Health and Safety

Comments on this topic stated that there are negative health effects in humans associated with consuming farmed seafood, and stated that consumption of farmed seafood leads to bioaccumulation of chemicals and toxins in humans. Comments stated that farmed fish are lacking in nutrition compared with wild-caught fish and that farmed fish are a source of microbial infections in humans. Commenters also discussed the human health impacts of red tides and the prevalence of no-swim advisories in Florida's Gulf Coast beaches in summer 2022 due to bacteria, stating that offshore finfish aquaculture could exacerbate these public health issues.

Comments also stated that the PEIS assess the potential improvements in public health that could result from increased domestic seafood consumption and increased availability of locally-farmed fish and seafood.

Aesthetic Concerns

Comments on this topic discussed the changes that offshore aquaculture would make to the viewshed of the offshore Gulf of Mexico environment, as experienced by people who visit these areas. Comments stated that barges and equipment associated with offshore aquaculture would negatively impact the open ocean wilderness viewshed.

Next Steps

NOAA Fisheries and its cooperating agencies are reviewing and considering all of the comments received during public scoping, exploring and gathering data that may not have been available at the time the spatial modeling for the Atlas was conducted, and working collaboratively to refine the proposed alternatives and scope of the draft PEIS.

There will be another opportunity for verbal and written public comment when the draft PEIS is published. NOAA Fisheries expects to publish the draft PEIS in winter 2024, and will update the timeline on the Gulf of Mexico Aquaculture Opportunity Area website and notify the public should this timeline change significantly.

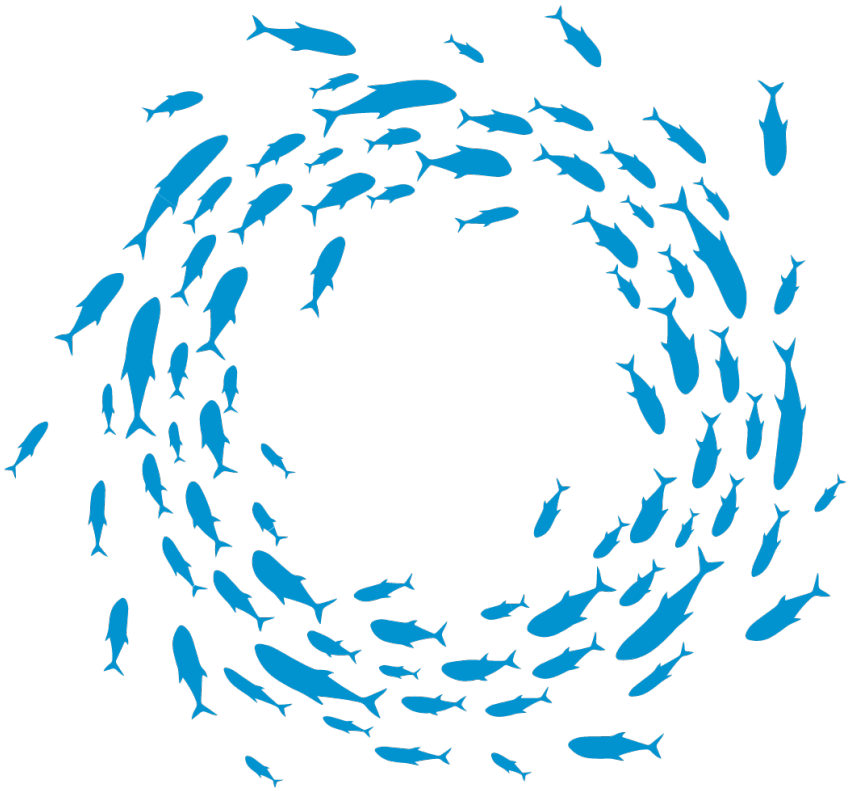
NOAA Fisheries will update the Gulf of Mexico AOA PEIS website with the latest information on the process. Additionally, NOAA Fisheries, at the request of the Gulf of Mexico Fishery Management Council, will provide regular updates on the PEIS process at future Council meetings, which are open to the public (in-person and virtual) and are recorded for those unable to attend.

Appendix A. Public Comments Received (verbatim)

Verbal submissions were compiled into a single document and appear first in Appendix A. Written submissions follow and are shown in the order they were submitted through the www.regulations.gov e-portal. Several written submissions were sent by email to the Regional Aquaculture Coordinator and those are provided after the e-portal written comments.

In some cases, written submissions included attachments. Attachments submitted included drawings and schematics, photographs, newspaper articles and scientific publications. At least one comment included upwards of 30 attachments. To keep the appendix size manageable and ensure that commenters' original thoughts and ideas are readily accessible, only attachments that included the submitter's original writings or work are included in this appendix. Attachments that were separate publications (e.g., newspaper or journal articles) are not included here but are publicly accessible online at www.regulations.gov.

Two petitions were submitted, one by Healthy Gulf with 242 signatures and one by Don't Cage Our Oceans with 8,272 signatures. In both cases, the organizations submitted lists of all signatories. Due to its length, this appendix contains only the first page of the document with 8,272 signatories. This first page includes the full text of the petition statement along with mention of the number of signatories. The document containing all 8,272 signatories is available on-line through the www.regulations.gov e-portal. The petition with 242 signatories is not as lengthy, but the appendix contains only the first page of signatories to ensure that both petitions are treated in the same way in this document.



Public Scoping Meeting Comments (Verbatim)

Gulf of Mexico Aquaculture Opportunity Area Programmatic Environmental Impact Statement

First Public Meeting

June 8, 2022

7:30 pm ET/6:30 pm CT

Virtual, WebEx format

Number of Attendees (including speaker): 39

Commenter 1: Hi. First, I want to thank you for having the webinar, but I must tell you, just as an aside, there's no sound when you hit your link. I'm actually watching it through my iPad, but listening to it audibly from my phone. So, there was some connection where you couldn't uncheck the X next to the sound being off.

I'm the only one that maybe is experiencing this. I don't know, but it's odd that no one else is commenting. Anyway, so to make my comment. The first six bullet points that you had up there as far as the points that are going to be considered in deciding whether these are going to be a go or a no-go, I'm in Florida, and we have had such extreme issues with red tide, too many nutrients in the water.

Water quality issues have been horrendous. The site, I think it was the second to last one that you mentioned, it might have been E-2, the one that's - the one you mentioned to the South of Tampa Bay, that is due west of Siesta Key, which is one of the biggest tourist destinations that we have, and it's been impossible during red tide to even go near the beaches, anywhere in the Suncoast area.

I want to make sure that the studies that are done accurately to determine where all the waste from these fish is going to drift. And I'm very concerned about the antibiotics that are going to be put into the water, because the fish are obviously going to get sick, because in such crowded conditions, how is that not going to affect any other fish in the area? It's water after all. It's going to go everywhere.

So, it's a major concern, and I am a lifelong Floridian - born and raised here, and I'd hate to see anything else detrimental happen to our coast. How can we ensure that all these studies are going to be done with the most care and concern? You listed all the agencies that are involved, but how was there coordination between the agencies? I don't know if anyone can answer questions or whether you're just supposed to make comments, but that's the conclusion of my comment.

Commenter 1 (second comment): Hi. So, I understand this isn't the forum for you all to be answering any questions. So, here is a comment. I would hope that the findings of all of the governmental agencies on these sites, not only will be listed for people to view online, but that a final webinar or maybe two, would be taking place to report the findings, especially by geographical area, perhaps three, one to address what's taking place off of Texas, one to address what's taking place off of Louisiana, and a final one to take place, regarding the sites off of Florida.

That way, we can understand what the thinking is. I'm sure the reports are going to be extremely detailed and scientific, but an overview for the layman as far as whether these sites, one, two, or all of the sites off of Florida, would be approved or not approved, and what the reasoning would be, I find - I think that would be very, very helpful to the residents. Thank you.

Commenter 2: Hello. This is Joyce Kouba, and I'm also in Florida. In fact, I actually know (Sarah), and I'd like to ditto everything she just said. I did want to mention that I actually could not get on the video portion of your meeting at all. I kept getting information about having problems with your server.

So, I guess I'll have to look into that. So, I'm simply listening to what was said. I did not see any of your presentation, but of course, in Florida, I'm representing Siesta Key Association here on Siesta Key. And I know one of your sites, your potential sites, is off the coast of Siesta Key.

As (Sarah) mentioned, we have tremendous problems with red tide, and that is a very considerable concern, of course, with anything that's going to go into the water. What is in the feed that's feeding these fish? And it is - all water goes everywhere. I don't know that you can contain whatever is in your aquaculture area.

So, again, as (Sarah) mentioned, we're very concerned about the studies, and if you have information about the studies themselves and what is being considered and how that is going to be measured or viewed, that would be interesting information. So, thank you for this opportunity and appreciate the presentation, and I will try to get on the next one and hopefully see your presentation. Thank you so much.

Commenter 3: Thank you. I appreciate the presentation. I also was able to get into the slides and then found it a little rudimentary here having to go in on a telephone call when we can certainly typically do these things all by computer these days. But that being aside, share a lot of the comments that the first two speakers, first two commenters made.

Very concerned here in the West Coast of Florida, especially the Sarasota area, where we have had the significant issue with red tide. Clearly, it's been known that nitrogen and phosphorus feed red tide. I would imagine that this experimental fish farm will discharge nitrogen, and we have had many phosphate leaks here, Piney Point being one of them, to drop a significant amount of phosphate into the ocean.

And now we're going to take a fish farm potentially that is going to produce large amounts of nitrogen. Mixing the two of those in is going to cause more algae blooms, I'm sure, and more red tide. I would like to make sure that's included in this is the levels that have been looked at from other offshore industrial fisheries and other nations.

And my understanding is some of those have caused pretty significant algae blooms, and I certainly would like to make sure that NOAA takes that into consideration, and anything that's looked at here in any of these proposals, takes that into account and protects the shoreline.

Our last algae bloom here, I believe, cost about $100 million in lost revenue to the State of Florida in cleanup costs, which are pretty darn significant. So, we may end up fixing one area and causing problems in another area.

I always go back to the issue when we introduced bufo frogs into Florida because we thought that was going to be helpful, and now we've got a lot of our animals dying, especially dogs, that end up getting poisoned by these bufo frogs.

So, sometimes we've got to be careful what we ask for because we just may get it, and it may be not really what we're looking for here. So, I do ask you to be cautious and certainly look at as much of the science as we possibly can here, because just knowing some of this and knowing the science behind it, I just don't understand how we can put these things even 50 miles offshore with such high nitrogen production and then all the other issues that that may cause. So, those are my comments. I appreciate the opportunity.

Commenter 4: My name is Andrew - I'm Andrew Whitehurst with Healthy Gulf, the Water Program Director, and I studied aquaculture years ago and worked on a catfish farm. And I know that this is open water aquaculture, but any kind of fish culture situation is essentially a nutrient producer. Catfish farms can be seen from the air with their various colors of vivid green. So, every catfish pond is an algae bloom on its own. So, whatever else happens out there in the Gulf, the nutrients are going to be released from these operations, either from the fishway or the wasted fish feed.

And I'd like to know more how they feed these fish, whether they're floating pellets, sinking pellets, how they contain the waste, because I've seen it firsthand. These, you know, on-land catfish farms are very dirty, and the waste won't be contained in, you know, like a catfish pond, but waste will be produced by any kind of a fish culture operation that feeds daily or multiple times a day.

I need to read more, and I'll be in touch. Thank you for the opportunity to get on tonight and comment. I'll mute again.

Commenter 5: Thank you for taking my public comment and for having these open sessions for us. I too, like a few of the other people, thinking about area E-3, 2,000 acres site about 49 miles from Tampa, which also impacts potentially Sarasota County and Siesta Key and other Barrier Islands.

I'm really concerned about what else could be taught all of us about the transfer of disease and parasites to wild fish populations when aquaculture comes in. I'm also interested in finding out more about antibiotics and in what way hydrogen peroxide is used in the practices of working with the fish.

I'm more than a little bit concerned about doing something like the aquaculture in this part of the gulf, with the susceptibility to severe weather, in parentheses, bad hurricanes, bad tropical storms, and everything else that comes along with our summers here and falls now.

I'm also concerned about predators and disease that may affect wild fish populations that deserve to be left alone. Thank you very much.

Second Public Meeting
June 16, 2022
6:30 pm ET/5:30 pm CT
Virtual, WebEx format
Number of Attendees (including speaker): 27

Commenter 1: Good evening. I am (Evan Levy), a law clerk at the Center for Food Safety. CFSs longstanding aquaculture program is dedicated to addressing the adverse environmental and public health impacts of industrial aquaculture and improving aquaculture oversight.

CFS has three main concerns with this AOA. First, NMFS lacks the legal authority to designate AOAs. In 2018 CSF, along with other conservation and fishing groups, successfully challenged NMFS;s authority to regulate aquaculture.

The Fifth Circuit Court of Appeals, agreeing with the lower court, concluded that the Magnuson Stevens Act, "Unambiguously precludes the agency from creating an aquaculture regime." The Executive Order on Promoting American Seafood Competitiveness and Economic Growth cannot give NMFS the authority to designate aquaculture when no statutory authority exists. Therefore this AOA designation exceeds NMFS authority.

Next NMFS must address the following environmental impacts in the PEIS. First finfish aquaculture routinely results in a massive number of farmed fish escapees that adversely affects wild fish stocks. Escaped fish threaten wild fish through competition, interbreeding, and disease and parasite transmission.

Second, finfish aquaculture facilities just discharge excess food, untreated feces, anti-salients, pesticides, drugs, and antibiotics into the surrounding ecosystem. Up to 75% of aquaculture antibiotics are absorbed directly into the surrounding environment instead of the farmed fish. Additionally, feces from these facilities can create dead zones by polluting the sea floor.

Third, the acoustic deterrence and nets used for aquaculture stress out and entangle a wide variety of marine wildlife from seabirds to migratory whales. Fourth, these operations could essentially privatize large areas of the ocean used for other commercial purposes like fishing, tourism and shipping. NMFS's programmatic EIS must address these environmental impacts.

Finally, NMFS must initiate formal programmatic-level ESA Section 7 consultation and prepare a biological assessment. The Atlas of the gulf indicates that Rice's whale, several threatened and endangered turtles, small teeth sawfishes, giant manta rays, oceanic white tipped sharks, Nassau groupers, sperm whales and gulf sturgeons may be found in the AOA study areas.

ESA regulations make clear that project-specific consultations does not receive - relieve - NMFS of the requirements for considering the effects of designation of an AOA or multiple AOAs. The only way to ensure that NMFS designation will not jeopardize listed species is to complete programmatic consultation, especially if NMFS designates multiple AOAs in the Gulf because site specific consultation fails to address cumulative impacts.

However, conducting programmatic consultation and addressing CFS's environmental concerns in the PEIS cannot share NMFS ultimate lack of authority to designate this as AOA. As such NMFS should not move forward with the AOA. Thank you for your opportunity to comment today.

Commenter 2: Great, thank you very much. Thank you Andrew and the rest of the team for this presentation. My name is Eric Brazer. I'm the Deputy Director of the Gulf of Mexico Reef Fish Shareholders Alliance.

We are the largest organization of commercial grouper and snapper fisherman in the Gulf of Mexico. We have membership in all five Gulf states. And they fish in areas adjacent to or in proximity to all of the proposed AOAs.

So we appreciate the opportunity to weigh in here. I plan to offer some initial feedback and comments this evening, but we do look forward to providing more detailed written comments by the deadline.

So, first off again I want to thank Andrew and the rest of the team for the work they've done to date. This really has been a comprehensive, inclusive and transparent process.

Commercial fishermen have had, and will continue to have, opportunities for meaningful input and a proverbial seat at the table. So we're seen as partners and that has built a lot of credibility and respect in the industry. So again, thank you guys for all that you've done this far.

I do have three considerations I want to put out there, in no particular order. Number one, you know, we are interested, the commercial fishing industry is interested in learning a little bit more about what species may be on the table, what species would be kind of, you know, favorable to operations like this? I think there's - will be some misinformation or just a lack of information out there about, you know, what species are, you know, I don't want to say susceptible, what species are likely to be grown in these areas.

And that leads to my second point, you know, I think it's going to be very interesting for this process to identify and delineate impacts to the supply chain, both positive and negative opportunities and challenges that exist when putting more fish into this supply chain. And what those impacts are at every point, wholesale, retail, restaurant all the way down to the consumer's plate.

And then finally, you know, we're very interested to see how this process, you know, not just evaluates the state of the Gulf of Mexico ecosystem today but how it takes into account the fact that climate change is having an impact in the Gulf of Mexico. So, you know, in particular looking at static versus adaptable analysis, data, et cetera, and what process exists to reevaluate or reassess, you know, if and when environmental and ecological or fishery conditions change over time.

So I'll leave it at that for now. Again, looking forward to continuing to work with you guys. So thank you very much.

Commenter 3: Thank you. So I have - I'm Paul Zajicek with the National Aquaculture Association. And I have a question, and I don't know if you can answer it, will this presentation be posted to the web?

And then, I don't know if this is appropriate or not, but for Eric, the World Aquaculture Society published an analysis on 18 potential marine species. And I'd be happy to send you the link to that analysis. And you can contact me at paul@thenaa.net. So paul@thenaa.net. Thank you very much.

Commenter 4: Hi. Yes, thank you. I'm Matt DePaolis. I am working with the Sanibel-Captiva Conservation Foundation.

And we are a barrier island community in the Gulf of Mexico off the West coast of Florida. And where we're situated and how everything affects us, water quality is always at the forefront of whatever we're doing or thinking about.

And I am sure everything related to water quality will be captured in the EIS. But I really just wanted my comments to stress how important it is for the consideration of any addition of extra nutrients being put into the Gulf of Mexico and how that's going to affect people who live in these areas that are constantly under threat of large harmful algal blooms, specifically red tide, but also macro algae blooms.

And when anyone is talking about putting a large, what's essentially a CAFO for fish in the Gulf of Mexico, where we know that the red tides are starting. And talking about having a large increase in nutrients in that area, it makes everyone on Sanibel and Captiva and the whole west coast of Florida pretty nervous.

So I'm - I just wanted to reiterate that I'm again, I'm sure this will be captured in the EIS and there will be a plethora of comments coming in if it's not. But we now know that these anthropogenic sources of nutrients have an exacerbating effect on the red tides in our area.

We have recent research coming out of the University of Florida that says specifically the nutrients that have been put in our watershed and our estuary have exacerbated red tide events in our area that have caused millions of dollars worth of damage, caused hundreds of tons of dead sea life to wash up on our beaches. And any sort of input that's going to be adding fish food to the water, adding fish to the water, that if a red tide were to occur in one of the areas where these aquaculture farms are being put in could turn into a dead zone.

If a red tide occurs then your stock is killed off, which just further feeds the red tide. And all of this just needs to be considered when citing or approving any of these operations. So thank you for giving us this opportunity to comment and look forward to seeing where these projects go. Thank you.

Third Public Meeting
July 12, 2022
7:30 pm ET/6:30 pm CT
Virtual, WebEx format
Number of Attendees (including speaker): 29

Commenter 1: Hi. My name is (Bryce Claypool). I'm 14 years old. I live in Manatee County, Florida, not far from one of the proposed spots for an offshore aquaculture facility. I am happy to see NOAA attempting to support sustainable aquaculture. However, I am highly concerned about the potential harm caused by fish farming.

I've seen the toxic algae red tide. I have watched dead sea turtles floating in the water because of this. I have seen mountains of dead fish on the beaches I love, and that's the same for marine life in the water our local fisheries depend on. The potential of intensive finfish farming to bring more fish misery to my community is not worth the benefit it will provide a few companies.

I would like NOAA to support truly sustainable aquaculture, such as multi-species farms, as well as seaweed farming. Unlike intensive monocultures of finfish, these farming methods will indeed help our communities and planet, and I look forward to their implementation. Thank you for listening.

Commenter 1 (second comment): Hi. This is (Bryce) again. I've noticed that all of the commenters but two have been opposed to this plan because of the negative effects it could have on my community and our environment.

I've noticed many of them are from our area of Sarasota, Florida. And I just want to recommend again that NOAA pursue truly sustainable aquaculture alternatives to offshore fin fish farming. Thank you.

Commenter 2: Okay. Thank you very much. My name is Kent Satterlee. I'm the Executive Director of The Gulf Offshore Research Institute, and we are doing research on reusing and repurposing the offshore oil and gas platforms once they're no longer producing oil and gas.

We believe that they are ideal hubs and logistical bases for offshore aquaculture, and that can include finfish, shellfish, and macroalgae. That research looks promising right now, and we certainly want this PEIS to look at some of the options of using the offshore platforms.

The primary comment that I've got with regard to the public hearing here is that the areas appear to be fairly locked in. In other words, they're pretty well-defined, and they don't necessarily corroborate or correlate with the locations of the offshore platforms.

We will provide comments to you by August 1 regarding the location of those available platforms nearby and the ones that we are working with the BOEM to repurpose. And our hope is that you can include, or perhaps expand, your PEIS review to include those platform sites. So, thank you very much.

Commenter 2 (second comment): Okay. Thank you very much. Again my name is Kent Satterlee. I'm the Executive Director of the Gulf Offshore Research Institute. And this is my second opportunity to comment tonight.

I wanted to comment again because except for one other comment other than myself, I believe all the verbal comments have recommended a no action alternative, which is a concern for me. It doesn't make much sense to me.

All of the concerns addressed by those commenters will be addressed by the PEIS. There is going to be a lot of work that goes into that. Every one of those concerns will be addressed by the PEIS. So I applaud the efforts to do this work ahead of time.

The other things that I wanted to comment on is I mentioned previously that we're doing research on repurposing the offshore platforms. And wild catch is going to continue to be very important in the Gulf of Mexico. It provides seafood to our local economies, to our local restaurants.

But the problem is that the United States is currently importing 85% of all the seafood that we consume in this country. And as we've seen over the last several months, the cost for that seafood has increased substantially. We're now having to pay probably 30% and even north of that now for the seafood that we consume, both in the grocery stores and in the restaurants.

And the FAO of the UN is now predicting food shortages around the world that have been promulgated in part by the Russian invasion of Ukraine. So we're literally facing a food crisis in this country.

So it's a bit of a no brainer to move forward with this PEIS. The United States has, I believe, close to 300 million people, not just 8 million as one of the previous commenters commented. But we've got close to 300 million people in this country to feed.

And with importing 85% of our seafood, it just really doesn't make much sense particularly with the supply chain problems that we've encountered over the last several months. We have a vulnerability in this nation with regard to our food supply.

In my opinion it's a national security issue. And the PEIS should go forward. And the alternatives that are on the table, the options that are on the table are very good options and they should proceed.

Commenter 3: Thank you. Thank you for holding this public comment session. My name is Andrianna Natsoulas, and I am with Don't Cage Our Oceans. We are a coalition of national, local, regional nonprofit organizations and private businesses that oppose offshore finfish farming, and at the same time, we uplift and support community-based sustainable aquaculture systems.

We support the no-action alternative in which no AOA would be identified in federal waters in the Gulf of Mexico. We're concerned about a host of issues of moving forward with unsustainable types of aquaculture such as offshore finfish farming. There are legal issues. There's federal agency overreach. There is water quality concerns that impact coastal communities, that impact tourism, that impact fishing.

So, just to touch on a couple of them, you know, legally, the Fifth Circuit court case called Fisherman's Association, held that NOAA does not actually have the authority to permit or regulate aquaculture in US federal waters, and there's no congressional authorization to do so under Magnuson-Stevens.

So, we really do view this Executive Order as a mechanism to circumvent Congress and to circumvent true public input, because Congress represents the will of the people of the United States. Executive Orders do not and federal agencies do not. Even if NOAA's permitting and regulating of aquaculture were to be legal, there are so many compelling reasons why this activity should not be allowed.

It does contaminate water with any of the chemicals and other antibiotics that are used to maintain a monoculture. So, a monoculture is when you take so many fish of the same species, cram them together in a cage, and grow them, for what purpose, I'm not sure, because from what we've seen, the finfish that are raised in these offshore facilities, don't make it to the local markets, and they do not feed the local communities.

They're quite expensive, if they are actually successful in raising fish that is edible. And if that does happen, they often go to white tablecloth restaurants far away from local communities, and often are exported. So, the argument that this meets the trade deficit in seafood has not been proven to be true.

I can go on and on about the harms and the dangers and the concerns about offshore finfish farming and the fact that it does not feed local communities. It only lines the pockets of companies that already have well-lined pockets. And especially now in a time of inflation and rising gas prices and food prices, this is most definitely not a solution.

A solution is to invest in actual aquaculture that supports local communities, that supports local mom-and-pop shops and operations, that builds on coastal economies and strengthens waterfronts. Specifically in the Gulf of Mexico, I am really concerned about some of the siting, and specifically C13 and C11, which look to be within the Gulf dead zone.

So, you know, we will submit more detailed comments, but I'm just wondering how you can use science and site two of these opportunity areas within the dead zone. And fish waste contains nitrogen, which is just going to elevate the issues that create dead zones.

And not to mention, you know, you're talking about beautiful marine mammals that exist in these waters, and these facilities have been proven to cause harm to them. And there have been incidences where these do exist, of deaths of monk seals and negative interactions with bottle-nosed dolphins.

And so, we, again, do not see how this is going to benefit the people. Cargill, Merck, Cisco, they're all behind this, and they support it, but I don't see the local communities, I don't see the people of Florida or Texas or Louisiana, really benefiting. So, thank you for taking my comments, and we look forward to submitting more detailed comments in support of the no-action alternatives. Thank you.

Commenter 3 (second comment): Hi. Thanks for taking my comment again. I figured since we had some down time and we still have another hour left, I just want to make one comment.

Because these Atlases and these actions that are being taken are based on this executive order that was signed in May of 2020.

And thinking about this executive order that directs NOAA to take this action, nearly 180 organizations and private businesses sent a letter to the Biden administration in April. Over 100 - nearly, I should say nearly 180 - organizations and private businesses sent a letter to the Biden administration in April asking President Biden to revoke this executive order because it does not promote seafood for American people, for this country, for the people who live in this country.

Those organizations and private businesses included all of the Gulf of Mexico states. They represent over 8 million people in the United States. They represent over 250,000 U.S. businesses. They represent over 70,000 food producers from every single U.S. state. And they represent over 5,000 fishing businesses from every coastal state.

And I'm saying this because this Atlas, this movement to open up our oceans to a polluting industry, confined animal feeding operations at sea, is not supported by the people of this country. And this letter is just one small effort to indicate and to show, to demonstrate, that this is not supported by the people of this country.

And again there should be no action taken. There should be no Aquaculture Opportunity Areas identified because this is not sustainable for people, for nutrition, for nutritious food, for the environment, for our wildlife, for our fish populations, for our local economies.

So I just wanted to add that. Thank you very much since we have some time.

Commenter 4: Thank you for this period of comments. My name is Antonio Tova from the National Family Farm Coalition. We are a membership organization of 32 groups, including the North American Marine Alliance. And we also are in favor of no-action, because we are very concerned.

We - our organization that is promoting sustainable agriculture and also food sovereignty - one of the issues that we see in the fish industry is that it was said that a lot of the seafood that the north american consumes is imported. And what is happening is that many of the fishes that are fished in our water is going to processing plants in other countries, and then come back - that it's not being fair for our communities.

The fisher folks on our organization are not being supported. And we find this process very similar to the CAFO industry, in which the industry and not the farmers - so in this case, the fisher folks - are going to benefit from this industry.

It is risky in terms of the pollution that they create. I'm a resident of Florida, and I have an additional concern in terms of the impact that it's going to have in our coast and also in the tourist industry. Florida depends heavily on tourism. And a previous comment was mentioned about the contamination that we already have in our waters for seasons. This is only going to aggravate those risks.

One of the areas has - was also mentioned in the Mississippi Delta, it's going to be not suitable for this kind of industry. We find it very problematic. And in general, we will favor no-action.

We will submit a more specific comment, but I thank you for the opportunity to offer these comments.

Commenter 5: Hi. I'm Dr. Neal Schleifer, representing the nonprofit SKCC with over 100 member associations and over 7,000 households on Siesta Key, Florida, where opportunity AOA E3 is located. And we also do not support - we also support a no-action option, and we believe that our area, the Sarasota area, E3, and other local areas, are not suitable for Aquatic Opportunity Areas.

A fish farm in this area would not build opportunity and economy, but instead endanger it. The amount of revenue the farm could produce would be dwarfed by the millions Sarasota could lose in tourism from red tide, which could be exacerbated by fish farm pollution that's lost hundreds of millions in the past.

Fish discharge waste and food could increase red tide blooms. Pollution and chemicals to prevent sea lice and disease could affect the marine environment. Sarasota and other Gulf communities' financial risks from the possible effects of offshore farms, such as increased red tide and marine environmental degradation, is much greater than their limited potential revenue.

The cages could break, loosen in hurricanes. Fish escapes could affect native ecology and debris boating traffic. There's ample evidence this type of fish farm contributes to algal blooms, and that inevitable fish escapes decrease native species. E3 is offshore Sarasota, as I mentioned, where the Velella fish farm is proposed, and where red tide zones often originate.

E4, also near us in the Tampa Bay Clearwater area, had a recent spill from the Piney Point phosphate spill, and a recent USF study indicated that contributed to a massive red tide outbreak. The E1 in the Fort Myers area is also susceptible to red tide, and all the areas are vulnerable to hurricanes, and the cages would be as well.

Our constituents are frustrated that government agencies refuse to take no for an answer despite the massive public outcry and scientific evidence provided at every hearing. There are more sustainable ways to produce food than offshore fish farms that usurp public waters for corporate profit.

Unfortunately, NOAA is not impartial, but a promoter of industrial farms, and in fact, a supporter of Velella Epsilon through a former substantial grant. We ask that NOAA consider the cumulative effects of the proliferation of farms planned by proponents throughout the Gulf.

Sarasota and neighboring areas aren't suitable for AOAs because fish farms would endanger the mostly tourist economies and the quality of marine life that both residents and visitors value highly. So, again, we're for a no-action option. Thank you for listening.

Commenter 5 (second comment)**:** Hi. Dr. Neal Schleifer again. I just wanted to address a couple of comments from the people of the offshore aquaculture community.

Generally whenever there is testimony like this, as someone pointed out, the vast majority of it, and certainly all the residents of the area oppose the fish farms in the federal waters and are against it. There's been a huge outcry. As I said, the constituents that I represent, over 7,000 households, oppose this.

And, you know, generally, you just get a couple of comments from the proponents of the fish farms who benefit from it, who support it. But there's vast evidence, the idea that it can be answered - yeah, it can be talked away - but when you look at the evidence, and I'm not going to - you know, I will also submit written comments with some evidence, but all of these things in terms of fish escapes, the decrease of native species, there was just a recent study on that.

And there are various countries that are shutting down the farms because of the type of problems. The algal blooms happen all over. And, of course, in Florida the red tide is a big issue.

One other thing that I, so - and there's a lot of scientific evidence about the harm that the fish farms can do - so it can be like in the EPA hearing. If you look at the EPA, at the evidence, you look at all the testimony, and, you know, somebody earlier said, what is the difference between degradation and significant degradation and who decides that?

So, you know, even the EPA found there would be degradation, but to what degree is that degradation? And, of course, the fish farms, you know, that's why there are all these AOAs. But even the proponents who in the beginning didn't specify, now they're specifying at least 16 to 20 fish farms. So you have the cumulative effects of all the extra waste and other problems that are going to be in the Gulf, which isn't that large a body of water compared to, you know, the whole planet.

So one other thing I wanted to address and that's the kind of misleading and fallacious statistics on the seafood deficit. One of the men who is a fisherman from the fishing industry addressed that.

But I want to reiterate that, first of all, the worldwide food problem and the current problem in Ukraine that was alluded to is about grain. It's not about fish. It's a lack of grain, which is a much more certainly basic food.

The idea that these fish farms would solve the food crisis in the world I think is ludicrous. There are much more sustainable ways to provide food. And the fish that are proposed in the fish farms like Velella Epsilon are not really the type of fish that the average person here is going to eat.

As a matter of fact, the U.S. has a fairly large catch, much of which is exported. And the man from the fishing industry pointed out that a lot of it is reimported after processing by China and other countries. But those fish are counted as being imported when they are really American catch.

And the vast majority by far statistically, and NOAA statistics show it, of imported seafood to America is inexpensive shrimp from Asia. So certainly that's not going to solve the worldwide crisis. And nobody is addressing that with these finfish farms anyway.

So those are just kind of false and misleading arguments that are made. And in terms of what the people want, what we need for federal waters, the rights of the people in terms of the laws, Andrianna earlier talked about some of the legal issues and how we got to where we are, so those certainly will play out.

But certainly you know, the mass of the public does not want these finfish farms. They're very cognizant of the dangers, which are not alarmist but very real. And what happens, you know, I alluded to the Piney Point phosphate spill.

And when that spill first came about, we were told that it was not going to affect the red tide. And then, of course, there was massive red tide outbreaks. And a study by the University of South Florida showed that yes, that spill did contribute.

And the same thing will happen with the fish farms. Wherever fish farms are, these type of farms, there have been out algal outbreaks. And we're in an area in the Gulf that's very susceptible to red tide blooms. And they do a tremendous amount of damage both to the fishing industry, to the tourist industry.

And so the dangers that this causes in terms of quality of life, in terms of loss of even hundreds of millions, as I alluded to in the economy, are not worth the risk just for the profits of a few. So again thank you for listening to me.

Commenter 6: Hi, I'm a local rod and reel fisherman here in the Clearwater area. And my biggest thing is, is that, what made the EPA decide that they go from reasonable degradation to non-reasonable degradation? Like what's the difference there to get the permit for the waive permit for them in the beginning of June?

The stuff of this has been expedited extremely fast. There is no room for this off our beaches. We already looked at the red tide causes. There's plenty of, you know, examples of the salmon farming in Norway, these fish getting disease. They're going to get out of the pens. Like no matter which way you cut it, they're going to get out.

We are in one of those volatile gulfs. The hurricanes come ripping through here. They're going to break loose. The fish are going to get out. And what made you all decide that these locations are a good location? If you don't believe that this is going to have any effect on water quality, I have two great locations for this, the Steamboat Lumps, or Madison & Swanson.

It's an already protected area where nobody's allowed to get in there, but why wouldn't it go there? I don't understand why it needs to be an area that people, recreational, commercial, and charter fishermen regularly fish. You know, we're talking almost three and a half square miles of zones, that are up to five different businesses can occupy.

This is starting with one small, you know, pen and next thing you know, it's going to landslide into more and more and more. I don't really understand what the end goal is here. I understand healthy competition in the business. Aquaculture is a great thing, but it needs to be done on land where the water can be pumped through recycling facilities and be recirculated through the different tanks.

But you look at, you know, the money it costs, it's what needs to be done. There's no reason to put our gulf in risk of potential red tide when you can do this on land. There's just - there's no exception. We, as commercial fishermen, are required to carry turtle gear, which we get harped on. You have to have a net and this and that.

And I understand for the benefit of the turtle, but what about the other sea life that this is going to cause, you know, damage to? When these fish get infected, when they get parasites, which they will, you're going to have to treat them with antibiotics and different steroids. What about the water around these pens?

When an algal bloom happens offshore, it's a lot different than inshore. If these things migrate into the middle grounds or wherever the currents are blowing, you're going to see dead loss everywhere. It's just - it's a disaster, and I don't understand why we're putting corporate America over the health of our oceans.

I mean, I do this, not out of, you know, I need to do it to survive. I'm a college graduate with a bachelor's degree. I'm a young guy. I commercial fish because I love it. I do it in a sustainable way. I don't long-line. I don't trawl. I do it rod and reel like anybody else going out fishing.

We love our oceans. We want to keep them the same way they are. We don't want to have the risk of a giant kill-off because we got executive orders saying, okay, let's bring aquaculture business to our coast. This company that's coming in now to raise these almacos, has had a rebranding and name change, coming from the Pacific to over here to raise these almacos.

I don't understand why this is happening so fast. There needs to be more research done about locations. There needs to be more research done about the degradation of the water, the water quality. The EPA board needs to figure out why they decided to change their mind and grant this permit when before, this permit was not granted.

What changed overnight to make this happen? You know, with the quota fishery that's been installed since, you know, the mid 2000s, you've already basically privatized the public resource. This is everybody's water. You know, you might let's say federal, where it's owned by the country and the nation.

It's everybody's water. We pay the taxes here. Why do you let private business come in like this with large sums of money to farm our oceans, when we are one of the most healthiest gulfs in the whole entire world. There are more fish out there than we know to do with, but instead, we're relying on our ocean to farm fish.

If you want to farm fish, it needs to be done on land, and there shouldn't be any kind of exception. I go back to, you know, the salmon industry in Norway. You look at these fish that have gotten salmon lice. They get out of the pens. And when they start breeding with the, you know, native species, it's a recipe for bad news.

When the Atlantic salmon got brought to the Pacific coast, and they escaped out of there, the scientists said, oh, there's no way they're going to survive. They did research. They went through all these different streams, the feeder streams that go into the ocean. They found these Atlantic salmon in all these streams.

They're, of course, going to survive. They're going to mate with the native stock, and they're going to pollute the stock. It's just there's so many things that are going against this, that if you have the EPA grant this waive permit to get this stuff rolling, at what point are you going to say that the juices are worth the squeeze?

We're all - I'm all for aquaculture. Most of my friends, everybody who fishes, they're not against aquaculture when it's done the right, proper way. And the proper way is done on land, in tanks, where the water can be recycled through a filtration system and repurposed, not where all the waste can just be dumped into the ocean.

At 20,000 fish is what - I think what they're estimating. Let me go back here. I think 20,000 fish and the growth is going to be up to four and a half pounds. That is a ridiculous amount of waste. There's no reason for it. So, I'm going to leave it at that. I hope to see some kind of different comment come back, because I've been to the Gulf Council meetings, and it's kind of just blank stare in the face.

There's no response. There's no data on the waste that's provided from these fish. It's just very vague, and it's been sprung upon a lot of people, and a lot of people don't even realize what's going on right before their own nose.

This is a slippery slope, and before you know it, there's going to be farms all over the coast, if you all let this go through. So, thank you for the time, and I appreciate letting people make comments. Thanks.

Commenter 7: Thank you. Local resident of Sarasota, and a sustainability professional. I would also encourage, no-action. I have some serious reservations about this proposal, and especially the lack of research that should be done in conjunction with it. So, thank you for taking my comments, and please listen to everyone on the call today.

Commenter 8: Yes. Thank you. I don't think there should be any action taken. I do not think that this is the place for your experiments, reason being that E1 dumps right into Cape Coral and Fort Myers. And already down there, they have records of intrusion from invasive fishes.

They already have the king - the Mayan fish and the arapaima, which are destruction in mass to an area they go in. And they have - they already show that E1 empties right into Fort Myers, where they're at. They found a dead one of these arapaima, and it reaches 10 feet long. It's the largest invasive fish in the world, one of the largest ones in the world, and it weighs several hundred pounds.

It eats everything. It eats birds. It can jump out of the water and grab birds. It eats clams. It eats fish. It eats anything and everything. And it - that's one of the bad ones. The lionfish is bad enough, but this makes the lionfish look like a beginner.

The other thing that's in danger is, the fact that I live on Siesta Key, and in Siesta Key, we have these - one of the two largest concentration of king - of horseshoe crabs and - in the world, and they've been around for 200 million years, and their population is dwindling. They're being used as - their blood is being used to - for medical purposes to test for COVID. They're using them for other things.

The fish farms that are coming in are bringing fish in from outside, which can bring in infections. And these horseshoe crabs are very infection-prone. They catch infection very easily, and we're having a problem keeping the populations up as it is. We don't need them to be caught either going in or going out.

I live on Siesta Key. This arapaima is an animal that is a fish that eats anything and everything. We also have shorebird nesting and turtle nesting, which the little turtles go back in, and they will not make it far with these invasive fishes running around. I don't think that it's - they say that they're not going to have any pollution. That is not true.

The fish farm out there itself may not have much, but if they're talking 30 or 50 to 100 farms out there, and you take a little bit and multiply it by 50 or 100, and you're going to get pollution. You're going to get additional - the fish come from outside, you'll get an additional infection you can get from them to bring it in if we're not used to. I can go on and go on but I only got three minutes so I've had to readjust my things to pick up some other things.

These farms when you start bringing 100 in, the disposable items coming out of there is going to be great. I think that one, I don't know where two is, but three and four, those four, if there is a two, E-1, E-3 and E-4 and if there is a two, E-2, should not be placed in there.

They are exposing areas to things that are just not good for the ecosystems or anything else. I can get long if I have time enough where I can sit down and go through organized. I tried to get everything in. I'm only getting part of what I have to try to get everything in.

If I had time, I could bring out a lot more things but they're just - oh we have also, and I didn't mention, the manatees. We're having a problem with manatees dying because they're being starved to death. They are being starved to death from pollution.

Pollution comes in and keeps the sunlight from the seagrass and it kills off the seagrass and there's nothing for the manatees to eat so they die of starvation. It's a whole thing. E-1 through E-4 is just not conducive to this area. There are things that dump out. There are currents that are built at the levels - that the currents come in, they come in to meet with the red tide.

And one of them, there was a dead arapaima that was found and it's right where the tide from the [Caloosahatchee] came down river. It comes into the coast area and there it turns north. That was the first one. E-1 was the first one and then it goes north. E-3 and E-4 are also involved in it.

So you're ending up, you're killing off a lot of things that have been around here for a long time. And we do not need - to list - to miss them.

I'd like to be able to call somebody and talk to them a little bit about how I can get together with you and lay out everything. I'm only breezing over the top of things and I'm not doing it in a good order.

I talk about the arapaima to give you an idea of the few things that it eats. It eats birds, small mammals, crabs, lizards, other fish and little turtles. And our turtle nesting area will be such that it won't be able to - they won't be able to survive and any birds or anything gets near it, this animal can jump right out. This fish, 10 feet long.

[This is the operator. I was just going to let you know you're running past your allotted time, sir.]

Okay. Is there a way that I can go through by maybe calling, emailing Andrew Richard and see if I can set up a time when I can get some real information not just over here in three minutes.

[Andrew Richard: Yes, Mr. Surprise, this is Andrew. Sure. This is Andrew. That would be great. You can absolutely set up a time to chat. I'd be more than happy to do that.]

Okay. Thank you. I will do that route because I'm usually more organized than this, but I had planned on having a little more time and my time has run out. I only started to scratch the surface of everything I've got against it. Thank you for the time.

Commenter 8 (second comment)**:** Okay. Well I'll be a little calmer this time. I had quite a bit done because I didn't know I'm going to cut to three minutes, but basically what I wanted to say was the fish farm alternative, the number one dumps, it's effluent and everything, waste, into the first E-1 position. And it dumps it right in there where the red tide goes.

This is a very bad situation. And any effluent they say that they're not getting any trash or effluent from those, that's not true. You've got to have the experiment, maybe you don't. But when they're starting to build 50 or 100, you're going to have a lot of trash during construction and after construction and during operation.

I know they mean well. But there's going to be trash. I live in Siesta Key. We are well-known all over the world for our clean beach. It won't be clean beaches for very long.

I'm concerned about the horseshoe crab because of the fact that not only the invasion, you know, and the invasive fish will give it a problem, infection is a big thing. And bringing in non-native fish and other things will end up giving a good chance of having them catch - the horseshoe crab will catch an infection and die. And they're doing a good thing working with medical people on that and also trying to get the populations back up where they're falling.

The pollution kills the seagrass. Well that in turn kills the seagrass because the sun can't get through, that kills the manatees. We're having a problem with the manatees. It's going to be a thing that in the experiment you probably won't have a lot of effluent stuff coming out of there.

But when you get 50 to 100 times that then you really got it, and it's not doing it away. It's going directly into where the red tide stuff flows. It excites it and we have a real problem with red tide. We had one that usually only lasts a couple of weeks. Here a couple of years ago we had one that lasted 18, 19 months, something like that.

And these lion fish and this arapaima, they are two fish that eat everything. They show no prejudice against anything. They eat anything. They can go in and destroy everything. And the fish farms will draw them because there's such a collection of fish that will draw them, and from there they'll move out and get what's - when they wipe that out, they will get whatever else they can.

I think I've hit most of the main ones there. I have a couple others but I think I'll let them - the main thing is that infection is going to go up and the pollution and the invasive fishes, the big things. That it's not to the advantage of the people who live along the Gulf Coast to have them in there. And they will ruin our economy in addition to everything else that's been already proven in places.

And the biggest thing - another big thing is that was slightly mentioned, but you've got several countries plus Alaska that are getting out of the fish business and going - they're raising fish, but

they're raising them on land. Canada, Denmark, Alaska and a few others are just completely getting out of it because it has caused so many problems to their environment, they don't want to fool around with it anymore.

So I think that those are about the main topics that I have a lot of backup on. And I don't have time enough to tell it here, but I can go in deep to these, and I have sources and everything else. So it's not just something that I [pulled] out of my mind. And I have some long-term things that are things that have happened and they were experiments and turned out very bad. And they started 30 years - three decades - ago and they're not solved.

So there are many things going on. And it isn't that we don't want the fish industry to expand and make money. We're not against that, but we don't want to ruin things that have been here for millions of years, and ruin them in a few days, you know, or a few months or years or whatever. But doing something like that for such a long time. I think that's the main highlight that I have. I'm a little more calm now than I was because I tried to throw everything in a short period of time.

I think what I'll do is I'll leave it at that for right now and I'll call or I'll email Andrew Richard and see if maybe I can discuss some way of getting more information to him over the phone or coming up to see him. I thank you for talking to me again. Have a good day.

Commenter 8 (third comment)**:** Yes. You were listing the different sites and you go E-1 to E-3. What happened to E-2? There is no E-2.

[Andrew Richard: Yes, Mr. Surprise. We're not responding to any comments during this forum, but I definitely would be happy to follow-up with you and we can definitely talk about why there were only Options 3, 4 and 1 in that location.]

Commenter 9: Yes. Hi. My name is (Fritz Janicke). I've been involved with domestic aquaculture for over 40 years. And I very much applaud the NOAA for taking this action to look at Aquaculture Opportunity Areas.

I think it's high time that the U.S. takes a proactive approach to expanding domestic aquaculture production. And that involves on land and in the ocean. And I believe that the programmatic environmental impact statement, which involves all these multiple agencies should adequately address the impacts and concerns voiced on this webinar by several of the people.

I also plan to submit written comments. Thank you very much.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

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Comment from Vandalay, Arthur

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General Comment

Do not support aquaculture in the Gulf of Mexico. Only private corporations and investors will benefit from this.

Disease amongst fish will spread rapidly.

NOAA should stop trying to shut down commercial fisherman who work hard to support their families.

Stop favoring investors

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Document: NOAA-NMFS-2022-0044-0003
Comment from McGrath, David

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General Comment

I don’t have the exact coordinates for the 3 recently proposed fish farms in the Gulf of Mexico. But their approximate locations of between approximately 50-75 miles offshore puts them smack dab in Florida’s grouper and red snapper fishing grounds, for anglers from Florida and from all over the country. Permitting these underwater monstrosities would be a tragedy.
A chain link cage, anchored to the sea floor with tens of thousands of fish packed like cattle in a soup of synthetic feed, waste and pharmaceuticals, would alter the ecology and pollute and deform the heretofore uncorrupted Eastern Gulf.
That NOAA would contemplate this destruction considering what it already knows is befuddling. A study published in Science Direct in December 2019 detailed the chronic accidents imperiling Norway’s offshore fish farm industry, including ‘mass mortality of fish during and after operations, introgression of genes [mixing with wild fish] from farmed salmon, the spread of disease and material damage to assets…’
The conservation group, Friends of the Earth, echoed the same dangers: “From the release of untreated fish waste and excess nutrients to the overuse of antibiotics and endangerment of marine life, industrial ocean fish farms are nothing but bad news for our oceans.”
At Ocean Era Corporation’s existing farm off Hawaii, which it saturates with thousands of gallons of hydrogen peroxide, ‘leakage’ is common and escape risk ‘high’ for penned fish invariably infected with ‘skin fluke parasites’. The company acknowledges hazards for large fish and mammals (dolphins and

whales) attracted to the cages that can become trapped inside and die, as happened there with an endangered tiger shark and a monk seal.

Arguments that aquaculture would make the United States less dependent on imported seafood are countered by the recent fact that more humpback whales are being observed off the coast of New York than ever before, as they feed on massive schools of menhaden that have finally returned. And scientists say New York's bounty of whales is due to cleaner water and stricter conservation laws, which is what the focus of the Army Corps and the federal government should be for increasing domestic fish stocks, instead of polluting the Gulf with farms to make inorganic 'seafood.'

As both a sportsman and a human being, I plead also on behalf of the caged fish. Fishermen respect nature and appreciate the intelligence, complexity and intrinsic value of the Gulf's inhabitants.

But in fish farm pens, the tortured fish cannot migrate or live normally, confined in a watery cell in an unaccustomed depth, leading an unnatural, immured existence before being slaughtered and frozen for shipment.

Finally, the pristine character of the Gulf of Mexico must be preserved. The sea is the last frontier where sportsmen, tourists, their grandchildren and, hopefully, great-grandchildren, may encounter wilderness, solitude and wonder.

Sailing over hills of sparkling blue water, accompanied by platoons of dolphin, frigate birds with eight-foot wingspans soaring overhead, flying fish gliding iridescent in your wake, and curious loggerheads surfacing to investigate – even the atheist among us suspects that this is where God, if he or she exists, would reside.

Imagine if you were vacationing in Yellowstone National Park, exhilarating in the mountains, the rivers and the wildlife, and your path were suddenly blocked by a barbed wire corral imprisoning 20,000 cramped, sedentary bison. In the same way, a barge parked 24/7 over a submerged enclosure boiling with disoriented fish amid a festering stew of contaminants would destroy our Gulf wilderness.

In jeopardizing our seascape and its cleanliness, fish farms may pose an even more serious threat to Florida tourism, the state's number one industry, than the grotesquely protruding and hugely dangerous oil rigs which the state has been successfully fending off its west coast for decades.

Fish farms are projects of special interest groups entirely at odds with the public interest and the health and welfare of the ocean's inhabitants and ecosystem. Keep them out of the Gulf of Mexico entirely.

• Emeritus English professor, College of DuPage, David McGrath is an outdoors writer from Port Charlotte, Florida, and a contributing editor to Florida Sportsman magazine.

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Comment from Puckett, ivan

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General Comment

Gulf Offshore Research Institute (GORI)(www.gulfoffshoreresearch.com) has been working with BOEM and BSEE for 2 years to receive a Alternate Use permit for 3 platforms in the Gulf of Mexico. In anticipation of receiving the permits, Blue Silo Aquaculture (BSA)(www.bluesiloaqua.com) as one of the potential lessees of platform space. To date that permit request has been denied and orders have been given to the original platform installer, Shell, to remove the platforms. A clear process is needed in order to repurpose platforms after oil and gas production has ceased. BSA has intentions of developing multiple IMTA installations in the Gulf. Finfish, Shellfish and Algae could have a symbiotic relationship in the Gulf and the products from these operations could help stem the tide of imported seafood products, could provide feedstock for a high protein supplement and could help with both CO2 sequestration and biofuels. Open Ocean Aquaculture has several advantages over land-based raceway or pond aquaculture projects. The primary advantage is unlimited supply of oxygenated clean seawater. Clean seawater also reduces the need for antibiotics and other artificial agents to promote healthy stock. However, Open Ocean Aquaculture is not without its challenges. Weather, excessive costs in manpower, quartering and transportation have to be managed carefully. It is our belief that there are technical solutions to some weather events, costs can be mitigated by sharing costs among multiple projects that are using the platform space and by using the latest technologies in the areas of Artificial Intelligence (AI) and Machine Learning (ML). Open Ocean Aquaculture is a significant part of the Blue Economy.

Attachments

DOE Report

Oceans 18 Paper - Satterlee_Watson_Danenberge ATT II

Offshore Renewable Energy in the Gulf of Mexico

IntraFish GORI article

Fishsite From Shell to Shellfish

Aqua contribute food security

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Comment from Higgins , Sharla

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Email: lala1974@gmail.com

General Comment

Hello protectors of our rare majestic ocean creatures that need your help! I am scared for the future of our ocean marine animals. There are so many five teams invading the personal space of these special animals, whales and sharks. Please see attached pictures that prove the harm these divers are doing. Not only can be dangerous for them and the public, it’s not right. These animals should not be trained to come to boats, come to people to be petted and played with the way they are doing. OceanRamsey.org .. how much money are they making while putting these endangered animals at risk? Who will protect them? This is so wrong! Check Instagram and all the videos. San Juan sharks, ocean Ramsey and follow the trails.. I’m scared for their future

Attachments

AF79BE4C-AA92-4D32-B981-7E0E95D9D40C

F0F963C2-BB93-4CA1-A0ED-D85EA691F2F8

98D83700-679D-4A37-9B63-9E1CE3159236

E5DDD697-856F-4FA4-B4BE-4085A4BEAEDF

AB12DEE0-1D2A-480F-B163-CDC86796FF45

01684A62-1965-4EAA-BEDE-9B9DC53BE4A7

09CFF9E0-DB45-46E3-BF35-FE9DE214B41E

98E52BF6-0C9E-4932-B227-E61594273538

59DBDB39-FC80-40D3-A7EC-72A5B04249A8

88F47569-9DBB-4937-823C-46AEE355827B

D71DF33F-D42C-4CF7-8BD1-C6FD816A189D

57A401E2-D6AC-479E-B389-B881FC03FC9D

1FA7B9B7-5DD4-40AE-A469-482AE634A6B5

E64F9CA0-8205-4C15-B6B4-200ADDC981E1

72698B43-5DEA-438D-BAAE-9FED6BAB12C0

4EED3329-F1A7-4658-B964-E5D3EDD98C8F

E65AAE1E-8735-4CA9-98EB-9B12F4F2C528

32B2289C-C402-4D4E-A65E-6DAE56AEA9B3

PUBLIC SUBMISSION

As of: 8/12/22, 12:39 PM
Received: June 06, 2022
Status: Posted
Posted: June 06, 2022
Tracking No. l42-prx2-wpyl
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0006
Comment from Franklin, Kelly

Submitter Information

Name: Kelly Franklin
Address:
Sarasota, FL, 34236
Email: kelly.a.franklin@gmail.com
Phone: 9413652931

General Comment

This entire scheme is insanely corrupt and will further degrade the already nitrogen and phosphate overburdened Sarasota Bay, Tampa Bay, and Gulf of Mexico. Other countries have banned aquaculture because it is so harmful to the environment. It is sick that our government would consider embracing it in the face of climate change and degradation of our natural habits. Stop serving big business and start serving the citizens and the future by protecting our natural environment.

PUBLIC SUBMISSION

As of: 8/12/22, 12:53 PM
Received: June 06, 2022
Status: Posted
Posted: June 07, 2022
Tracking No. l42-s7bs-29tk
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0007
Comment from Steinberg, Arlene

Submitter Information

Name: Arlene Steinberg
Address:
Sarasota, FL, 34236
Email: designsbyarlene@netscape.net
Phone: 5169936577

General Comment

This is just a bad idea and I hope it's not approved.

PUBLIC SUBMISSION

As of: 8/12/22, 12:55 PM
Received: June 06, 2022
Status: Posted
Posted: June 07, 2022
Tracking No. l42-sb9k-o72i
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0008
Comment from Murray, James

Submitter Information

Name: James Murray
Address:
Naples, FL, 34113
Email: jim.murdog@gmail.com
Phone: 2409975333

General Comment

As our fishery resources become exhausted worldwide, it is becoming more and more important to find alternative sources to supply our seafood demand. Traditional commercial fisheries cannot fill this need and have many negative externalities through bycatch and habitat destruction. Aquaculture is the future and the Gulf with its ideal seafood growing climate is the place to start. I live in Naples, FL and am strongly in favor of NOAA permitting aquaculture at all of the proposed sites.

PUBLIC SUBMISSION

As of: 8/12/22, 1:02 PM
Received: June 06, 2022
Status: Posted
Posted: June 07, 2022
Tracking No. l42-w6xs-9vrb
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0009
Comment from SchurrSchurr, LisaLisa

Submitter Information

Name: LisaLisa SchurrSchurr
Address:
Sarasota, FL, 3424234242
Email: krasnymost@yahoo.com
Phone: 9417408155 9417408155

General Comment

Under no circumstances do we want aquaculture anywhere off the coast of Sarasota county. The potential pollution and injury to existing species is limitless.

PUBLIC SUBMISSION

As of: 8/12/22, 1:40 PM
Received: June 06, 2022
Status: Posted
Posted: June 07, 2022
Tracking No. l42-wlft-29vj
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0010
Comment from A Blumenthal, Rhonda

Submitter Information

Name: Rhonda A Blumenthal
Address:
Sarasota, FL, 34232
Email: lily166@aol.com
Phone: (941) 228-5264

General Comment

Our Gulf has struggled to survive despite increased red tide, run off from phosphate mining, oil spills and strange algae blooms. Please don’t further degrade the surviving marine life and fishing area by adding any type of commercial aquaculture. Wrong place!

PUBLIC SUBMISSION

As of: 8/12/22, 1:44 PM
Received: June 06, 2022
Status: Posted
Posted: June 07, 2022
Tracking No. l42-x258-symd
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0011
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous

General Comment

I don’t agree with having aquaculture in our waters. This can add additional pollution which can cause harm to other
Sea life and the cleanliness of our waters.

PUBLIC SUBMISSION

As of: 8/12/22, 3:21 PM
Received: June 06, 2022
Status: Posted
Posted: June 07, 2022
Tracking No. l43-92xo-ext8
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0012
Comment from Day, Kellie

Submitter Information

Name: Kellie Day
Address:
Longboat Key, FL, 34228
Email: sixdaysonthefarm@aol.com
Phone: 4782563121

General Comment

The very idea of an aquaculture community in the Gulf of Mexico is absolutely NOT acceptable! This area of the Gulf is already experiencing serious issues with red tide each summer. To place a "Fish Farm" off of the coast, where we are pretty much guaranteed they will be using some sort of chemical growth component, as well as, the fact that movement along the sea bed could cause unknown disturbances, is absolutely CRIMINAL! We need to protect the waters of Western Florida and this should not be allowed in any way, shape or form. To allow this is to sentence our Gulf waters to further contamination! I am implore our leaders at NOAA to everything in their power to stop this proposal in it's tracks. Please do the right thing and vote against this ASAP!

PUBLIC SUBMISSION

As of: 8/12/22, 3:25 PM
Received: June 07, 2022
Status: Posted
Posted: June 07, 2022
Tracking No. l43-nduk-5eyu
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0013
Comment from Nachman, Tim

Submitter Information

Name: Tim Nachman
Address:
Redington Shores, FL, 33708
Email: tjnach000@gmail.com

General Comment

What type of aquaculture projects will be considered? Cobia?

PUBLIC SUBMISSION

As of: 8/12/22, 3:28 PM
Received: June 07, 2022
Status: Posted
Posted: June 07, 2022
Tracking No. l43-pzul-925k
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0014
Comment from Novak, LeighLeigh

Submitter Information

Name: LeighLeigh Novak
Address:
Sarasota, FL, 34232
Email: leighannenovak@gmail.com

General Comment

The Gulf struggles now. Say NO to commercial fish farming!
The FL ecosystem is horribly damaged - and has an effect on the health of the Gulf.

PUBLIC SUBMISSION

As of: 8/12/22, 4:09 PM
Received: June 07, 2022
Status: Posted
Posted: June 07, 2022
Tracking No. l44-6m37-5r8w
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0015
Comment from Lee, Jeff

Submitter Information

Name: Jeff Lee
Address:
Nokomis, FL, 34275
Email: jefflee0514@gmail.com

General Comment

Anyone even remotely involved in this decision must first be required to become fully informed of red tide and recent increases in quantity, intensity, length, and most importantly, the impact (death) on aquatic life. Seeing, smelling, and experiencing the “killing fields” that span entire county beaches, shorelines, and Intercoastal waterways, would make anyone in their right mind, pause on approving anything that has the potential to compound an already horrifying phenomenon.

PUBLIC SUBMISSION

As of: 8/12/22, 4:15 PM
Received: June 08, 2022
Status: Posted
Posted: June 13, 2022
Tracking No. l45-mz5n-qudq
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0016
Comment from Martin, Carla

Submitter Information

Name: Carla Martin
Address:
Sarasota, FL, 34238
Email: carlasrq@gmail.com

General Comment

A fish farm in the Gulf of Mexico is NOT acceptable! The Gulf already has red tide episodes each summer -- leaving millions of dead fish, dolphins, manatees and other creatures in its wake! A fish farm off of the coast, will be creating tons of fish feces and from what I have read, antibiotics and chemicals to grow these fish. Say NO. We vote to protect Gulf Waters and further contamination should not be allowed! I implore our leaders at NOAA -- you who know so much about the climate and climate change -- PLEASE do everything in your power to stop this and future proposals in their tracks. Please do the right thing and vote against this ASAP!

PUBLIC SUBMISSION

As of: 8/12/22, 4:17 PM
Received: June 08, 2022
Status: Posted
Posted: June 13, 2022
Tracking No. l46-bxjh-impu
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0017
Comment from Greene, Richard

Submitter Information

Name: Richard Greene
Address:
Sarasota, FL, 34232
Email: rick@swia.us
Phone: 9415447330

General Comment

Regarding the Ocean Era farm fish project:
Promotion is important as a source of more edible fish. And of course, profit for the owners and investors. However, some negatives:
Other states and countries have found such projects as failures and banned them – recent history shows these negatives effects:
Potential pharmaceutical contamination to other marine life and water quality in general – which it is has been determined that such ‘toxins’ already
infiltrate our animal consumption and our personal water intake – as water filtration plants can only filter down to certain levels of contaminants.
Potential cage failure – from poor construction, defects, maintenance, and in our storm alley, maybe damage from changing currents. While the cage may have
‘automatic’ sensors and positioning, we need only to remember the BP oil spill and the effects of when the automatic closure devices and alternate methods
of stopping contamination repeatedly failed. One would surmise it would only take the failure of one device to start a domino effect of damage.
Such failure could also result from unintentional poor monitoring, missing potential or actual problems. (And possibly from intentional poor monitoring – as we
remember this is a profit oriented venture, or should we overlook cigarette promotion?).
As a small project, it may not create issues with water temperatures or chemical composition of water or

changes in currents or major potential for spreading
illness among other marine life, BUT, as an initial such project in the Gulf, if allowed, will be followed by others, operated in larger quantities and possibly with
non-native fish, or less quality observation by maintenance personnel or government officials – either accidental or by purpose.
Unintended accidents can occur – such as the recent event at Piney Point phosphate waste storage – now damaging Tampa Bay and eventually our coastal waters.
Remember this catastrophe was not prevented, but was advanced, not only the absentee owners, but also our government agencies – both County and State.
Once contaminated, water clean-up is not so easy, if at all possible. Effects from BP's Deepwater Horizon in 2010 failure, or Exxon Valdez, and many other corporate ventures with disastrous outcomes, are still being felt, causing damage to marine life and growth of cleaner water aquatic species – plants, fish, mammals, mollusks, corals,
Recreational activities can also be damaged long-term – from fishing, bathing, water sports, etc. And Florida depends heavily on presenting clean water to do
all these activities. Degradation of our waters and beaches would have a negative effect on our real estate, and our restaurants and gift shops and theme parks and every business which draws people from all over the world to our State.
While an aquaculture activity might be an economic gain for a few, I would think clean water for recreation and general life would have a larger economic effect.
Think about it, is it worth the chance to damage the beautiful state we have?
Richard Greene
978 Molly Circle
Sarasota, Florida 34232
941-544-7330
B.S. in Natural Resources from Ohio State University with emphasis on water pollution engineering

PUBLIC SUBMISSION

As of: 8/15/22, 9:48 AM
Received: June 09, 2022
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Posted: June 13, 2022
Tracking No. l46-zcqp-iugz
Comments Due: August 01, 2022
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0018
Comment from Pinellas County

Submitter Information

Email: klevy@pinellascounty.org
Government Agency Type: Local
Government Agency: Pinellas County

General Comment

Concentrated fish operations in the Gulf of Mexico would result in increasing nitrogen loads that contribute to algae blooms along SW Florida. While red tide is not currently present, there are blooms of Trichodesmium, Pseudo-nitzschia spp., Peridinium quinquecorne, Pyrodinium bahamense, and Lyngbya spp., RIGHT NOW (Pinellas County and FWC data 06/07/2022). There is no public benefit to this operation and the ongoing impacts of algae blooms along SW Florida cause environmental harm, public health issues, and impacts to local and the regional economy, and quality of life.
Estimating Economic Losses and Impacts of Florida Red Tide: https://coastalscience.noaa.gov/project/estimating-economic-losses-and-impacts-of-florida-red-tide/
Quantifying the Economic Costs of Red Tide: https://www.newswise.com/articles/quantifying-the-economic-costs-of-red-tide
Assessment of the Short- and Long-term Socioeconomic Impacts of Florida's 2017-2019 Red Tide Event: https://coastalscience.noaa.gov/project/assessment-of-the-short-and-long-term-socioeconomic-impacts-of-floridas-2017-2019-red-tide-event/
Impacts of red tide in peer-to-peer accommodations: A multi-regional input-output model. https://doi.org/10.1177%2F13548166211068276
Review of Florida red tide and human health effects: https://www.sciencedirect.com/science/article/abs/pii/S1568988310000934
Red Tide: Overview and Clinical Manifestations: https://www.sciencedirect.com/science/article/abs/pii/S2213219819309213
Neurological illnesses associated with Florida red tide (Karenia brevis) blooms: https://www.sciencedirect.com/science/article/abs/pii/S1568988318301033

Nitrogen-enriched discharges from a highly managed watershed intensify red tide (Karenia brevis) blooms in southwest Florida: https://www.sciencedirect.com/science/article/abs/pii/S0048969722012414

Attachments

The-Economic-Ripple-Effects-of-Florida-Red-Tide_unsigned

PUBLIC SUBMISSION

As of: 8/15/22, 10:16 AM
Received: June 09, 2022
Status: Posted
Posted: June 13, 2022
Tracking No. l47-3hp6-213p
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0019
Comment from Tatum, Jim

Submitter Information

Name: Jim Tatum
Address:
Tampa, FL, 33604
Email: jim@jimtatum.net
Phone: 3522133916

General Comment

I am writing to oppose the aquaculture permit requested by the company in Hawaii off the coast of Sarasota Florida. Aquaculture is like mining, an accident will happen sooner or later. We already have excessive nutrients in the Gulf, exacerbating red tide. Please do not consider the partnership with Mote Marine as anything like giving respect and stature to this venture. Mote Marine puts profit over the environment and does not do serious work toward helping our planet. this is just one more example of exploiting our natural resources in a harmful manner.
Thanks for considering my comments.

PUBLIC SUBMISSION

As of: 8/15/22, 10:19 AM
Received: June 09, 2022
Status: Posted
Posted: June 13, 2022
Tracking No. l47-lpp9-clg2
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0020
Comment from Armstrong, Barbara

Submitter Information

Name: Barbara Armstrong
Address:
Venice, FL,
Email: robarb45@gmail.com

General Comment

I live in Venice Fl and do not want to see any type of fish farm off our coastal waters. We have enough problems with red tide now and can't go to the beach for periods of 18 months at a time. A lot of it has been caused by man. Please stay away from our waters with fish or seaweed farms.

PUBLIC SUBMISSION

As of: 8/15/22, 10:23 AM
Received: June 09, 2022
Status: Posted
Posted: June 13, 2022
Tracking No. l47-o81z-gv8q
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0021
Comment from Martin, Elise

Submitter Information

Name: Elise Martin
Address:
Venice, FL, 34293
Email: icleanteeth2001@yahoo.com
Phone: 8479870677

General Comment

It would be environmentally irresponsible to allow fisheries off the SW Florida shores. This is a struggling area right now. We should not risk any more destruction of our coastal waters.

PUBLIC SUBMISSION

As of: 8/15/22, 10:25 AM
Received: June 09, 2022
Status: Posted
Posted: June 13, 2022
Tracking No. l47-ryg2-txr0
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0022
Comment from Martin , J

Submitter Information

Name: J Martin
Address:
34293

General Comment

Please do not have this fishery in our Florida water, this will bring too much traffic vessels and contamination to our beautiful shore. No aquaculture

PUBLIC SUBMISSION

As of: 8/15/22, 10:45 AM
Received: June 10, 2022
Status: Posted
Posted: June 13, 2022
Tracking No. l48-7p4u-d3pi
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0023
Comment from Speckerman, Maria

Submitter Information

Name: Maria Speckerman
Address: United States,

General Comment

As a resident and active paddle boarder of Venice Fl , I am concerned for the effect an off shore fishery will have on red tide. The concern for the aquatic life, environmental health, financial impact, respiratory impact, etc is overwhelming. I. Vote. No.

PUBLIC SUBMISSION

As of: 8/15/22, 10:49 AM
Received: June 10, 2022
Status: Posted
Posted: June 13, 2022
Tracking No. l48-wiux-q2kw
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0024
Comment from Stokes, Bill

Submitter Information

Name: Bill Stokes
Address:
St. Petersburg, FL, 33701
Email: bstokes4@juno.com

General Comment

The Gulf of Mexico is imperiled from a plethora of challenges. Please do not allow fish farms. There is an abundance of information confirming the harmful effects acqua culture causes to the environment.

PUBLIC SUBMISSION

As of: 8/15/22, 10:51 AM
Received: June 12, 2022
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Posted: June 13, 2022
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Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0025
Comment from Steele, Tina

Submitter Information

Name: Tina Steele
Address:
Sarasota, FL, 34236
Email: rls444@hotmail.com
Phone: 9412506635

General Comment

The waters in, on and offshore, of the west coast of south-central Florida are already heavily polluted. With a plethora of nutients, from agricultural and lawn fertilizer runoffs, that feed algal blooms (red tide, multiple cyanobacteria, the flesh-eating Vibrio vulnificus), have destroyed the habitat of many sea mammals such as manatees. They have also caused putrid Lingbya mats to form in canals and intracoastal waterways, and rotting fish and wildlife clutter our beaches and send the stench far inland. Even the very thought of offshore fish farming is untenable, because those of us who live here know with certainty that it will compound the already dire problems we already have. Millions of gallons of fish-poop contaminated Gulf waters WILL end up combining with shoreline nutrient runoff and we will have the perfect storm of algal and bacterial blooms that will make our beaches, waterways, and shorelines so toxic that they will drive residents, tourists, and businesses alike oermanently away. The situation is already dire, with the correlations between cyanobacteria/red tide and neuromuscular diseases such as Parkinsons, and higer incidences of dementia - Alzheimer's in particular - are being increasingly linked. Sea mammals and seabirds are becoming endangered, as their foodsources are wiped out. We have reached a tipping point. Please, do not let offshore fish-farming push us over the edge.

PUBLIC SUBMISSION

As of: 8/15/22, 2:41 PM
Received: June 14, 2022
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Comments Due: August 01, 2022
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0027
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous

General Comment

Why on June 8, 2022, did EPA Region 4 make a final decision to issue NPDES permit for Ocean Era's marine aquaculture facility (Velella Epsilon) in federal waters of the Gulf of Mexico? The 60-day comment period is still open.

My comment for an aquaculture facility is NO! Do not allow.

PUBLIC SUBMISSION

As of: 8/15/22, 10:57 AM
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0026
Comment from Pomeroy, Marian

Submitter Information

Name: Marian Pomeroy
Address:
Sarasota, FL, 34239
Email: marianpomeroy@gmail.com

General Comment

Why on Earth is NOAA pushing this agenda? What ever happened to science based decisions and water quality concerns? The Gulf and our estuaries are under seige from man made problems and now this??? The entire local community is firmly against this. We fought EPA over this and we will continue to try and protect our waters. If only we had government agencies doing the same!
And the scientific data indicates how badly this can go wrong. If the goal is truly aquaculture, then do it correctly by using land based operations that will not contribute to the problems already here.

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0027
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous

General Comment

Why on June 8, 2022, did EPA Region 4 make a final decision to issue NPDES permit for Ocean Era's marine aquaculture facility (Velella Epsilon) in federal waters of the Gulf of Mexico? The 60-day comment period is still open.

My comment for an aquaculture facility is NO! Do not allow.

PUBLIC SUBMISSION

As of: 8/15/22, 3:13 PM
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Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0028
Comment from Whiteside, Emerson

Submitter Information

Name: Emerson Whiteside
Address:
SARASOTA, FL, 34241
Email: cgwhiteside@gmail.com

General Comment

I am posting this comment to express my opposition to the aquaculture permit off the coast of Sarasota, Florida. Excessive nutrients in the Gulf have exacerbated the proliferation of red tide, which has had a massive impact on tourism in the area with damages being done to tourist-related businesses (hotels, accommodations, restaurants, gift shops, etc). Do not consider the partnership with Mote Marine as anything like giving respect and stature to this venture.

PUBLIC SUBMISSION

As of: 8/15/22, 3:14 PM
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0029
Comment from TUCK, CAROL

Submitter Information

Name: CAROL TUCK
Address:
SARASOTA, FL, 61114
Email: carol_tuck@yahoo.com
Phone: 18155190821

General Comment

Please do not allow Fish Farms near the beautiful Florida Gulf Coast. We are already at risk for red tide and Fish Farms have proved to be bad for Native fish and local pollution.

PUBLIC SUBMISSION

As of: 8/15/22, 3:17 PM
Received: June 17, 2022
Status: Posted
Posted: June 21, 2022
Tracking No. l4j-6399-kdrc
Comments Due: August 01, 2022
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0030
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous
Email: dagny59@yahoo.com

General Comment

I am opposed to the Aquaculture in Federal Waters of the Gulf of Mexico. History tells me that little to no oversight of Federal grants to private entities will result in negative impact to Flordia's wildlife and the quality of life of Florida residents. Impact statements are at best imperfect in their identification of issues, and do not mitigate risk sufficiently. They are a pro forma gate to authorizing commercial activity. While these companies reap profit they are not held to the financial obligations of remediating damage. Gulf residents already deal with Red Tide which while it occurs naturally in our waters is greatly exacerbated by commercial farming and runoff from the overpopulated coast. Additional nutrient loads from these aquaculture farms are just one more source of fuel for Red Tide. The death of fish, turtles, manatees as well as the overall impact of Red Tide on the local gulf economies, is an unacceptable price for commercial profit.

PUBLIC SUBMISSION

As of: 8/15/22, 3:45 PM
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0031
Comment from NA, NA

Submitter Information

Name: NA NA
Address:
Englewooe, FL, 34223
Email: johnathies@gmail.com

General Comment

See attached file(s)

Attachments

Aquaculture comments and questions (JT)

Aquaculture comments and questions

The PEIS should thoroughly analyze and clearly present the results pertinent to the following topics, questions, and issues.

1. The PEIS should consider the full life-cycle impacts of aquaculture operations in the gulf. For example, increased transportation, processing, and storage operations.
2. The PEIS should identify and analyze the full range of sustainability issues associated with the proposed aquaculture facilities.
3. What algorithm/calculus will NOAA use to compare the benefits of aquaculture to enhanced native fish production?
4. Will NOAA consider the cost and impacts of additional security to protect aquaculture facilities?
5. We know that unplanned events do happen, e.g., the BP oil spill; the PEIS should consider comprehensive emergency response measures and how those measures integrate with other operations in the Gulf of Mexico.
6. The PEIS should consider enhanced native fish production as a viable alternative to aquaculture.
7. What other alternatives other than aquaculture are being considered to comply with the executive order?
8. How will the proposed aquaculture facilities be powered?
9. Will the aquaculture facilities have lights at night? If so, what is the impact on sea turtles, and other marine life.
10. The PEIS should present the decommissioning and dismantlement actions that will be required at end-of-facility-life.
11. Will there be a public exclusion area around an aquaculture facility? If so, what size?
12. The PEIS should present a thorough analysis of the life-cycle implications for climate change from an aquaculture facility.
13. The PEIS should consider the possibility of genetically modified organisms in an aquaculture facility.
14. What are the potential impacts if GMOs escape?
15. The relevant ocean currents need to be modeled in the PEIS to show where waste products, escaped fish/organisms, etc. may end up.
16. What federal agencies will be involved in regulating and policing an aquaculture facility, if one is built?
17. Once the PEIS is completed, will a proposed site be required to prepare a site-specific EIS?
18. Will there be an “emergency fund” set up or Bond posted in case there is an unplanned event at an aquaculture facility? If so, how with the fund be funded?
19. Have alternatives, such as building underwater structures and artificial reefs been considered to enhance native fish populations as an alternative to aquaculture?
20. Has NOAA modeled the gulf wildlife food chain impacts of the proposed aquaculture facilities? If so, the results should be presented in the PEIS.
21. The PEIS should clearly preclude a Finding of No Significant Impact (FONSI) for future aquaculture facility sites. Each site should be required to prepare a site-specific EIS.
22. The PEIS should consider the potential benefits of an aquaculture facility against those of a floating solar farm and/or wind farm.
23. Will an aquaculture facility attract sharks?

24. What will be the impact on migratory bird populations?
25. Will an aquaculture facility attract birds?
26. How will the animals that are attracted to an aquaculture facility be managed/deterred?
27. Why does this PEIS not include the “Pilot Project”? Is there other NEPA action in process for this pilot project? This pilot project should be identified and its relationship to this PEIS identified.
28. The PEIS should consider the tradeoffs between a sea based aquaculture facility and a land based aquaculture facility.

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0032
Comment from Weisband, Stephanie

Submitter Information

Name: Stephanie Weisband
Address:
Englewood, 34223
Email: sweisband1@gmail.com

General Comment

See attached file(s)

Attachments

AOA PEIS Comments-Weisband_061922

Following are my comments, questions, and concerns about the proposed Aquaculture Opportunity Areas (AOAs).

1. The scope of the planned PEIS should include impacts from the Vella Epsilon pilot project and any other ongoing and proposed commercial and/or public projects involving aquaculture in the Gulf of Mexico. Excluding these projects from the PEIS will result in an incomplete and misleading impact assessment.

2. As part of the PEIS scoping and public outreach process, NOAA should answer the following questions and address these issues in the PEIS:

    a. How many aquaculture facilities will be located in each AOA and what criteria will be used to make this determination?

    b. Will the aquaculture facilities located in each AOA be government-owned/operated or private?

    c. If private, will the government be involved in the recruitment, selection, and or oversight of aquaculture facilities located in each AOA?

    d. Will the aquaculture facilities located in each AOA be licensed and/or permitted under Federal or State regulations and which organization(s) will collect associated license and permitting fees?

3. How many AOAs will be selected as a result of the PEIS process? Will the PEIS evaluate impacts from 0 to 9 AOAs including different combinations for impacted communities?

4. Will there be a limit to the size and scope of aquaculture facilities located in each AOA?

5. If the number, size, and scope of aquaculture facilities in each AOA has not yet been determined, how can NOAA conduct a meaningful impact assessment?

6. It is important for the PEIS to assess impacts of the proposed AOAs and aquaculture facilities on each of the following:

    a. Commercial and recreational fishing within 100 miles of each AOA,

    b. Pollution, contaminants, and introduced nutrients associated with each AOA and impacts on natural fish and wildlife populations, threatened and endangered species, water quality, air quality, noise quality, and sea bottom/shoreline soil and vegetation quality,

c. Generation and/or exacerbation of algae blooms including Red tide blooms throughout the entire Gulf of Mexico region,

7. The waters of Southwest Florida are home to several unique species of marine and coastal wildlife as well as many threatened and endangered species. The PEIS should assess changes in the location and habits of native wildlife including fish, manatees, dolphins, sea turtles, birds, and other marine and coastal wildlife due to the potential enhanced feeding opportunities around the aquaculture facilities and the impacts on the food chain.

8. Southwest Florida attracts tourists worldwide for recreational fishing and hosts several tarpon fishing tournaments in the Gulf of Mexico. The PEIS should assess the impact of the proposed aquaculture facilities on the viability and location of native fish populations and sport and recreational fishing enterprises.

9. There is an extremely rare and sensitive offshore archaeological site located off Manasota Key on the Gulf of Mexico. This site is the first preserved prehistoric burial site in North or South America that has been discovered offshore, and one of just a few such sites known in the world. The site is more than 7,000 years old and is the final resting place for numerous ancestors of Florida's indigenous people. Its recent discovery demonstrates that the Gulf of Mexico has the potential to contain other preserved archaeological sites that were once on land but are now submerged. The siting of proposed AOAs, which will increase boat traffic and human activity between the AOAs and shore communities and may cause disturbances to soils and sediments, is not compatible with the presence of this rare archaeological site and others like it that may be found in the area of Southwest Florida.

10. Twelve years ago, the entire Gulf of Mexico was subject to the Deepwater Horizon oil spill, the largest oil spill in the history of the petroleum industry and one of the largest environmental disasters in American history. Efforts are still underway to mitigate impacts and restore ecosystems that were severely impacted by this oil spill. In addition, in the last five years, southwest Florida has experienced some of the most extensive and severe algal blooms (Red tide and others) in recorded history which has caused devasting effects to entire populations of marine and coastal wildlife. I am concerned that operation of the proposed aquaculture facilities to be located in the AOAs and associated activities increasing traffic in the Gulf of Mexico will add pollutants and contaminants such as pesticides and chemicals as well as nutrients into the Gulf of Mexico, adding to the environmental insults the area has experienced and working against past and ongoing efforts to clean up and restore the environment. In any case, the presence of the AOAs and aquaculture facilities does not improve environmental conditions in the Gulf of Mexico.

11. Will the presence of existing infrastructure for aquafarming in the local area including transportation, fish processing, storage, shipping, and marketing facilities and capabilities be evaluated in the PEIS when determining preferred locations for the AOAs and aquaculture facilities?

12. Does NOAA plan to fund the creation or improvement of infrastructure for aquafarming including transportation, fish processing, storage, shipping, and/or marketing facilities in local communities near the proposed AOAs and aquaculture facilities? If so, the PEIS should evaluate this cost and socioeconomic impact in the PEIS.

13. I am opposed to selection of AoAs E-1, E-3, and E-4 due to the unique and sensitive marine and coastal species that exist in the region; the fragile ecosystems already compromised by oil spills and red tide; the existing commercial and recreational fishing enterprises that would have to compete with AOA aquaculture enterprises; the rare underwater archaeological site that is located in the region; and the lack of existing infrastructure to support aquaculture in addition other growth the region is experiencing.

14. I am opposed to the construction of new fish processing facilities in the small onshore communities between Tampa and Naples to support the aquaculture operations planned for the AOAs. I believe the communities in Southwest Florida will also oppose creation of fish processing facilities and industry in the area.

15. What is the estimated amount in today's dollars of the economic impact and opportunity that the AOAs and aquaculture facilities are projected to create? Will this estimate be validated in the proposed PEIS?

16. Has NOAA compared the benefits of increasing native fish populations in the wild (through creation of artificial reefs, restoration of natural habitats, etc.) with the benefits expected from the proposed aquaculture facilities as a way of meeting the intent of the Executive Order 13921? The PEIS should include this analysis as part of the scenarios evaluated.

17. The PEIS should evaluate land-based aquaculture facilities in comparison to facilities sited in the Gulf of Mexico.

18. What is the real chance that the PEIS will result in a No Action alternative?

19. Will questions and comments submitted in the virtual public meetings and those submitted online and via mail be included in the published PEIS?

20. Will the public have an opportunity to comment on the draft PEIS before it is finalized? If yes, how can I be added to a mailing list and/or be notified of this comment period?

21. To what extent has NOAA worked with the State of Florida and regional/local organizations on the location of the proposed AOAs to be evaluated in the PEIS?

22. Can the AOAs currently identified by NOAA be changed or new ones added over the course of the PEIS?

PUBLIC SUBMISSION

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0033
Comment from NA, NA

Submitter Information

Name: NA NA
Address: United States,

General Comment

The quest to grow more food for an ever-burgeoning world populace leads mankind to pursue increasingly Earth-threatening enterprises. Fish farming is a novel and effective way of producing more marine food for hungry humans. It also produces incalculable threats to the ecosystems of the planet essential to our very existence.

1) Crowded species lead to sickness among them. We inoculate them. The fish live to slaughter. So do the chemicals with which we inject them. Those chemicals do not stay entirely with the fish. They accumulate in the plant life and bottoms of the sea as well as the water itself.
2) Free to roam, chemicals are ingested by myriad sea life including wild fishes, sea grasses, algae, and other foodstuffs upon which said creatures feed: big fish eat small fish; small fish eat even littler; littler fish eat crustaceans; crustaceans eat algae; and so on.
3) Sea turtles, dolphins, manatees and more have exposed to our horror the evil we are perpetrating. They increasingly fall ill, bear lesions, and die-off from simply living in this new ocean we have created.
4) These human-made “buffets” draw fish-eating birds who a) become competitors for the product and are then deemed targets for “culling” (a/k/a murder) or b) sicken from eating the chemical-laden fish which they then pass along to offspring if they are even able to reproduce. They often simply die.
5) Eventually, this stuff reaches a level of concentration at which people eating the fish start falling ill as a result of unknown and unintended chemical consumption. (Salmon are often offered in our local super-market as “brown-sugar glazed.” A specialty or an attempt to hide the unsavory condition of the unmasked flesh?)
6) Corporations scoop up the profits until the cost of compliance with regulations intended to protect the public as well as the environment shear the take at which point they declare bankruptcy and wander off

into the netherworld with their ill-gotten gains.

Sadly, it is safe to assume fish farms will be approved. Please make them few. Please heavily regulate them. Please follow through with inspections to ensure compliance. Please make corporations pay significantly into a fund designated for clean-up of the horrific accidents that will assuredly follow their practices. Please work to find alternatives to this factory farming. Please strive to stop the pollution of our waters from this and the many other enterprises that have turned our seas into cesspools, thereby enabling wild fish to thrive once again.

Thank you for your efforts and for listening to this muted cry on behalf of creatures of the sea—including those who will end up in those pens.

PUBLIC SUBMISSION

As of: 8/16/22, 7:46 AM
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Posted: June 21, 2022
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Docket: NOAA-NMFS-2022-0044
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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0034
Comment from Cashetto, Joanne

Submitter Information

Name: Joanne Cashetto
Address:
Sarasota, FL, 34238
Email: jcashetto@gmail.com

General Comment

I am against fish farms in the Gulf. I am a resident of Sarasota and have enjoyed Siesta Key beach for many years but recent red tides and long-lasting red tides have hampered my ability and many others from enjoying our beaches. Fish farms can produce unhealthy fish, they produce a lot of concentrated waste that pollute the surrounding waters and contribute to red tides. I want to protect Gulf waters and so should NOAA, please vote against fish farms now and in the future. Thank you.

PUBLIC SUBMISSION

As of: 8/16/22, 7:49 AM
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Docket: NOAA-NMFS-2022-0044
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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0035
Comment from Nief, Kathleen

Submitter Information

Name: Kathleen Nief
Address:
Sarasota, FL,

General Comment

Imagine if your neighbor put a large fish tank in the front yard, a tank that measures 17 by 7 meters. Then he put 20,000 fish in the tank. The fish will live or die in the tank for the following twelve months. These fish will have to be fed, but it's not clear how much food these fish will need, so there will be uneaten food in the runoff as the tank water is refreshed. Pests and diseases may develop in the tank, so antibiotics and pesticides will be added to the feed as needed. The expectation is still that 3000 of the fish will just die of viral fungal or bacterial diseases and rot in your yards.
Feces of 20,000 fish will be dumped daily. This waste will not be treated, but will be sloshed into the front yard, and run off into your neighborhood yards.
Of course, this will cause problems for you, your neighbors, your pets and your plants. The stench will make it difficult to find tenants for your seasonal rentals; your restaurants and bars will close because no one will want to eat or drink in your area. Your parents and kids are likely to develop breathing problems from the fetid air
You expect that some government agency will intervene and make this stop, perhaps an agency concerned with environmental issues or the quality of like in coastal communities. Would you be correct?
As all the above problems can be managed in land based fish farms, without damaging our Gulf or our beaches, I would ask that fish farms not be allowed near the Gulf coast.
Although research is ongoing & there is much unknown about Red Tide, the release of nutrient rich effluents from fish farms in the Gulf is likely to contribute to increase algal blooms & dead zones which lead to greater severity & frequency of Red Tide events.
Red tide can make it impossible to enjoy our beaches and maintain our tourist & retiree based economy. Surely the economic impact on our communities far outweighs the value produced by these proposed fish

farms.

Kathleen Nief
Sarasota, FL

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0036
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous

General Comment

I'm a Pine Island angler and do not consent to our public resources being sold to private corporations who will pollute and destroy our natural resources. I will boycott any company that participates in this and encourage my entire community to do the same.

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0037
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous
Email: angda7@yahoo.com

General Comment

This is unacceptable 1st off our water quality is already crap #2 your taking more of the lively hood from the commercial fisherman

PUBLIC SUBMISSION

As of: 8/16/22, 12:33 PM
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0038
Comment from Pskowski, Michael

Submitter Information

Name: Michael Pskowski
Address: United States,
Email: mikeep18@yahoo.com

General Comment

We do not need fish farming in the Gulf of Mexico. The effects of this will be detrimental to the area.

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0039
Comment from December , Michael

Submitter Information

Name: Michael December
Address:
FL,

General Comment

We do not need aquaculture in the Gulf of Mexico. There are enough water quality issues today inshore and nearshore. We absolutely do not need to introduce semi contained high densities of fish including the chemicals, synthetic foods, and the other contaminates that come with it. Not to mention the logistical issues such has upkeep and weather events (hurricanes).

As a native Floridian I know I speak for most when I say we do not support aquaculture in the Gulf of Mexico. It is a privatized for profit industry.

PUBLIC SUBMISSION

As of: 8/16/22, 1:22 PM
Received: June 26, 2022
Status: Posted
Posted: June 27, 2022
Tracking No. l4v-po8e-29an
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0040
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous
Email: truela1@netscape.net

General Comment

I hope NOAA has the good sense to prohibit commercial aquaculture. Look at the catastrophes Canada and Iceland are dealing with because of their aquaculture...Medications, pesticides, parasites and farmed species have escaped from their open water farms contaminating the ecosystem, causing millions of dollars in clean-up. Our Gulf region relies heavily on tourist dollars and wild species fishermen/shrimpers. Catastrophes from commercial aquaculture would have a dire impact on these. Let's learn from the mistakes of these other countries and protect and conserve the natural and native ecosystem that we have in our Gulf of Mexico. Thank You.

PUBLIC SUBMISSION

As of: 8/16/22, 1:33 PM
Received: June 27, 2022
Status: Posted
Posted: July 07, 2022
Tracking No. l4x-5gc3-hmkk
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0041
Comment from Roman, Susan

Submitter Information

Name: Susan Roman
Address:
Sarasota, FL, 3440
Email: scrom51@aol.com
Phone: 941.378.3042

General Comment

The value of Florida’s biologically sensitive areas and endangered and threatened species should not be put at risk for floating fish farms.

We should not risk the productivity of our offshore or estuarine areas, which will ultimately prove to be more important for our future than harmful industrial fish farming.

Existing state and federal regulations do not address the significant damage fish farming has on the environment.

There is no reason to believe that the NOAA will protect Florida's economy and environment from the potential serious environmental damage associated with industrial fish farming.

Industrial fish farming will place Sarasota’s coastal waters, an area of high environmental sensitivity and marine productivity, at risk.

Presently the region supports numerous species of wildlife, major commercial and recreational fisheries, and several species of endangered animals.

The potential to exacerbate red tide blooms by fish farms in our region cannot be ignored. Studies have

shown that red time blooms create a negative health impact on the populace.

Please do not allow fish farms in areas so close to the Florida coasts as currents cannot be predicted to carry off the discharged waters to areas far from the coastlines.

PUBLIC SUBMISSION

As of: 8/16/22, 1:53 PM
Received: June 29, 2022
Status: Posted
Posted: July 07, 2022
Tracking No. l4z-ukpw-jhv9
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0042
Comment from pinson, noel

Submitter Information

Name: noel pinson
Address:
Franklin, TN, 37069
Email: npinson@comcast.net
Phone: 16154038844

General Comment

Please don't allow fish farms in the Gulf of Mexico. The rid tide is bad enough we don't need more pollution in the waters.
Thank you

PUBLIC SUBMISSION

As of: 8/16/22, 1:55 PM
Received: June 30, 2022
Status: Posted
Posted: July 07, 2022
Tracking No. l51-cbos-r60c
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0043
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous

General Comment

No, just no. We already have enough issues on the Florida Guld Coast. Please protect and conserve the natural and native ecosystem that we have in the Gulf of Mexico, not harm and destroy it.

PUBLIC SUBMISSION

As of: 8/16/22, 2:02 PM
Received: July 04, 2022
Status: Posted
Posted: July 07, 2022
Tracking No. l56-v1im-9pia
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0044
Comment from Tannen, Pete

Submitter Information

Name: Pete Tannen
Address:
Sarasota, FL, 34234
Email: pete@petetannen.com
Phone: 914-552-0520

General Comment

TO NOAA:

Once again, a big corporation is pushing you to OK a fish farm in the Gulf – just 45 miles west of us in Sarasota.
(Note: they've cleverly changed the name from "experimental" to "demonstration". Please don't let that fool you.)

But, as we all know, experiments often fail -- in spite of all the assurances you have received from corporate executives.

Say a hurricane sweeps into the Gulf and wrecks the fish cage... an employee makes a dumb mistake...scientists who claim Gulf currents could never wash fish feces onto our W. Coast beaches turn out to be wrong...or maybe this "experiment" actually nourishes red tide blooms, as some other top scientists have warned.

The damage and loss of income to W. Coast Florida businesses could easily exceed the $90- $100 million it cost after the last red tide disaster. Hotels, restaurants, tourism, developers, builders, etc., could all be seriously hurt; some businesses will go bankrupt, with a huge loss of local jobs.

Since this ‘experimental’ project is for a private company to make profits for their executives and shareholders, shouldn't they accept some risk and responsibility?

Shouldn’t they have to provide, say, $100,000,000 in liability insurance? Or set up an escrow fund to pay for possible damages and losses to Florida’s existing businesses?

Why should our local Florida businesses, and Florida taxpayers, be on the hook for millions of dollars in disaster relief if this “demonstration” fish farm doesn’t work out?

Sure, the shareholders of this fish farm expect to reap big rewards -- and I wish them luck. That’s what capitalism is all about, and I’m all for it!

But they should be the ones taking the risks. Not the rest of us.

Pete Tannen
333 North Shore Drive
Sarasota 34234
Mobile: (914) 552-0520

TO NOAA:
Once again, a big corporation is pushing you to OK a fish farm in the Gulf – just 45 miles west of us in Sarasota.
(Note: they’ve cleverly changed the name from “experimental” to “demonstration”. Please don’t let that fool you.)
But, as we all know, experiments often fail -- in spite of all the assurances you have received from corporate executives.
Say a hurricane sweeps into the Gulf and wrecks the fish cage... an employee makes a dumb mistake...scientists who claim Gulf currents could never wash fish feces onto our W. Coast beaches turn out to be wrong...or maybe this “experiment” actually nourishes red tide blooms, as some other top scientists have warned.
The damage and loss of income to W. Coast Florida businesses could easily exceed the $90- $100 million it cost after the last red tide disaster. Hotels, restaurants, tourism, developers, builders, etc., could all be seriously hurt; some businesses will go bankrupt, with a huge loss of local jobs.
Since this ‘experimental’ project is for a private company to make profits for their executives and shareholders, shouldn't they accept some risk and responsibility?
Shouldn’t they have to provide, say, $100,000,000 in liability insurance? Or set up an escrow fund to pay for possible damages and losses to Florida’s existing businesses?
Why should our local Florida businesses, and Florida taxpayers, be on the hook for millions of dollars in disaster relief if this “demonstration” fish farm doesn’t work out?
Sure, the shareholders of this fish farm expect to reap big rewards -- and I wish them luck. That’s what capitalism is all about, and I’m all for it!
But they should be the ones taking the risks. Not the rest of us.

Pete Tannen
333 North Shore Drive
Sarasota 34234
Mobile: (914) 552-0520

Attachments

FISH FARM 2022

PUBLIC SUBMISSION

As of: 8/16/22, 2:13 PM
Received: July 05, 2022
Status: Posted
Posted: July 07, 2022
Tracking No. l58-k0lx-lt85
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0045
Comment from Bailey's General Store

Submitter Information

Email: cjohnson@baileys-sanibel.com
Organization: Bailey's General Store

General Comment

Thank you for the opportunity to share public comment on the aquaculture opportunity areas in federal waters of the Gulf of Mexico. My company is a grocery store and seafood retailer in southwest Florida on Sanibel Island. Our company is opposed to any and all aquaculture in the Gulf of Mexico. The resources of the Gulf of Mexico are too precious and vulnerable to subject to possible negative environmental effects that the aquaculture industry might expose to these waters. Additionally, our local wild and natural commercial seafood species need to be better protected instead of trying to exploit an already stressed ecosystem through the approval of aquaculture.

Thank you for protecting our precious and vulnerable resources.

Calli

PUBLIC SUBMISSION

As of: 8/16/22, 2:22 PM
Received: July 05, 2022
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Posted: July 07, 2022
Tracking No. l59-0hc6-w4sg
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0046
Comment from Surprise, Thomas

Submitter Information

Name: Thomas Surprise
Address:
Sarasota, FL, 34242
Email: tsurprisea@gmail.com
Phone: 941-346-0199

General Comment

These comments are reasons that the Ocean Era Velella Epsilon Fish Farm Project (Fish Farm) would NOT be in the best interest for the Gulf Coast of Florida.
*Proposed Fish Farm locations, E-1; E-3; and E-4 are located in the water currents that Red Tide "resides" in. The proposed Fish Farms would be placed in a position to add pollution to the Gulf Coast of Florida, especially the barrier islands. One experiment does not sound like much but when you are adding 50 or 100 Fish Farms, the potential environmental damage is sizeable.
*The concentration of fish within each Farm will draw two major invasive fish (Lion Fish and Arapaima) which will devastate the area. Both fish eat everything in site and the Arapaima not only eats fish; it eats birds; turtles; and other animals in the water which would ravage the entire area.
*One of the inhabitants of the Gulf Coast is the Horseshoe Crab. The Gulf Coast of Florida has one of the largest populations of Horseshoe Crab, in the world, but their numbers are dwindling. At this time, the blood from the Horseshoe Crab is being used by researchers in testing of COVID. The invasive fish (Lion Fish and Arapaima) have the potential to eradicate Horseshoe Crabs which in turn would seriously affect medical research.
*Canada, Denmark and Alaska are departing from the "Aqua Fish Business" and going to inland farms because of all of the problem that the Fish Farms have presented to their environment.

The above comments are only part of the available sources of information. Documentation is located in the attached files entitled "Facts for NOT Approving the Fish Farm" and "Fish Farm Rebuttal".

Facts for NOT Approving the Fish Farm

DO NOT GIVE the Ocean Era's Velella Epsilon Project a permit to place a fish farm in the Gulf of Mexico, off Siesta Key.

Commissioner Nikki Fried, Department of Agriculture and Consumer Services has stated that 76,000 jobs would be supported. The numbers Ms. Fried has been given are incorrect. At the most only a few hundred temporary jobs would be created (construction & project start up). There are some possible permanent positions, in operations.

As a Barrier Island, Siesta Key's economy is based entirely on Tourism. Siesta Key's Beautiful Beach was once again, identified as the #1 US Beach, which encourages lots of tourists to come and enjoy the beauty of Siesta Key.

Placing the fish farm here, could have a devastatingly negative effect on over 100,000 jobs both on and related to the island. This could include small business, supplies, food, bars, souvenirs, restaurants, hotel/motel rooms, condo/house rental, farms, gas stations, tour guides, stores and any other item related to tourism. This is not a complete list of the potential negative effects on Siesta Key.

Environmental effects, listed are backed up by reliable sources and facts. Of the 9,000 comments sent to the EPA, regarding the fish farm on Siesta Key, the vast majority were against placing the farm off the beautiful beaches of Siesta Key.

The Velella Epsilon Project proposes to place the fish farm at a location and depth where the currents come in. The pollutants, that the farm discharges, can excite the "bloom" which causes the devastating Red Tide.

The Project Promoters also admit, "So here we are, with a lot to learn." (Herald Tribune) Siesta Key and other barrier islands cannot afford to have learning done at "our" expense.

EXAMPLES OF GOOD INTENSIONS AND DISASTEROUS RESULTS

- Farmers put Fertilizer and Plant Control on crops in Central Florida without making barriers to prevent washing the fertilizer into the rivers and canals which has the fertilizer moving into the Gulf of Mexico. This caused 17 month Red Tide (from September, 2016 to February, 2018). This practice and corrective procedures killed Manatees, Dolphins, Various Fish Species, Conch, Star Fish, Squid, Scallops, Shrimp, Clams, shell fish, invertebrates, and **DISRUPTED** turtle and shore bird's nesting locations.
- **Kudzu** is a vine which started out as a decorative plant. The Georgia Highway Department saw it and thought it would be good for a low maintenance ground cover along the highways. When the Kudzu takes over, it kills ALL living vegetation in its path.

Kudzu can grow 1 foot a day! **Kudzu is now out of control in several states around the Gulf and covers 7.4 MILLION acres, in the South.**

- **Nutra Rats** were brought in New Orleans by the Louisiana Department of Conservation to control weed problems along the bayous. The rats had NO predators or enemies, and are VERY prolific. The number of rats rapidly grew and were uncontrollable. Much erosion and a tremendous amount of damage was brough to the shoreline by the introduction of these rats. The proposed Fish Farm has no "enemies", BUT could draw into the Gulf, species that could be detrimental/destructive to Siesta Key.
- **Lion Fish** is an invasive fish, which has begun to move into the Gulf. This fish is brutally destructive and has NO enemies. Lion Fish will do damage to any and ALL fish, in or out of the farm, that it can get to. If the Lion Fish continue to come into the Gulf, they can ruin recreational and for-profit fishing, as well as other unrelated businesses. Some groups of people, around the Gulf, are working on controlling the influx of Lion Fish. The Fish Farm will only draw more Lion Fish to the Gulf.
- **Horseshoe Crab** is a native of the Gulf of Mexico. Only a few places, in the world, are home to Horseshoe Crab and Siesta Key is one of those few. As a matter of fact, Siesta Key has one of the largest populations of Horseshoe Crab in the world. A group of researchers found the Horseshoe Crabs produce Zinc, which can possibly be used in the development of a COVID-19 vaccine. Horseshoe Crabs catch infections easily, the Fish Farm will be producing and "dumping" pollutants, into the Gulf which could possibly negatively affect the Horseshoe Crab.
- **The Gulf Sand Shelf** The unique Sand Shelf, that is off the coast of Siesta Key, could be damaged by trash and pollution from the Fish Farm. Pollutants would end up on the shores of our beautiful beaches. A Tropical Storm/Hurricane could dislodge the Fish Farm, damage the Sand Shelf, which will in turn would damage/clutter the shoreline.
- **Fishing** The Ocean Era's Velella Epsilon Project claims that all kinds of fishing will be improved. Other Fish Farm oriented projects have proven that fishing, right after the project is started, will improve BUT shortly after that the fishing deteriorates to worse than it was before the project had begun.

The Washing Post published an article (January, 2020) regarding experimental fish farms in Federal waters. The article indicated nations such as Canada and Denmark have started to move away from open water net/pen aquaculture and toward land based closed containment farms.

Therefore, do not give Ocean Era's Velella Epsilon Project a permit to place their EXPERIMENT in the Gulf of Mexico. Recommend that Fish Farms are placed INLAND where problems are better abled to be caught and controlled. The Gulf of Mexico cannot afford to become a failed experiment.

The Siesta Key Association Board of Directors (SKA) are strongly in favor of any project that will enhance the environment, living quality or enjoyment of the people who do business, live, work, or play on the island.

Kampachi Farms wants to place a Fish Farm in the Gulf of Mexico, off the shore of Siesta Key, for experimental purposes. After extensive research of the project request, the SKA has come to the conclusion that this exercise could do extreme damage to Siesta Key, the Gulf of Mexico, and the environment. DO NOT LET THEM PUT THIS PROJECT HERE.

The reasonings behind the SKA's decision, with references:

1) There is insufficient short term and no long-term research.
In Kampachi Farm's own words, "So here we are, with a lot to learn." Sarasota Herald Tribune, 02/01/2020. If you need further information, look under **"Examples of Disasters from No Long-Term Research"**

2) Placement of the farm is in a location and depth at which the water currents flow that carry Red Tide to the white quartz sand shores that Siesta Key is noted for. These pollutants can cause problems when trying to control Red Tide's bloom. Sarasota Herald Tribune 01/30/2020.

3) Kampachi Farm has not shown how the sand shelf, in the Gulf of Mexico, will be protected. There is potential destruction from:
A) pollutants, in the waters, released from the Farm's pen(s);
B) hurricane damage from the anchors that hold the Farm's pen(s);
C) scattering trash/debris over the sand shelf floor and across the beach, from deteriorated equipment and pens as well as waste pollution.
Sarasota Herald Tribune 03/12/2020, 02/29/2020, 02/19/2020, 02/07/2020. 11/19/2019

4) Siesta Key is a member of the National Healthy Beaches Campaign (NAPC) promoting clean healthy beaches, by prohibiting smoking, water pollution while encouraging the cleanliness of the unique quartz beaches that make up Siesta Key. Siesta Key Beaches have been named #1 more than one time on more than one list, within the last years. The Kampachi Farm Project will have an adverse impact on this beach ever being cited as a #1 beach again. The entire environment will be adversely impacted, marine life, fish, birds, sea turtles, manatees, dolphins, and other life forms.

Listed above are just a few of the numerous reasons why the Kampachi Fish Farm should not obtain a permit to do their Research Study in the Gulf of Mexico, off of Siesta Key, Florida. If experimentation and research is Kampachi's desire, let them do it in a non-populated area, like one of the less inhabited Hawaiian Islands or several miles inland, where the problems can be better controlled.

Examples of Disasters from No Long Term Research

1a.) The farmers, in the central part of Florida, were using fertilizers and pesticides, which flowed into and polluted the rivers, when it rained. Sewers also flowed into the rivers and polluted the Gulf of Mexico. All of this "excited" the Red Tide Blooms, so sulfate was sprayed on the Gulf of Mexico, to kill the Red Tide Blooms. A massive influx of brevetoxins was introduced into the ecosystem, from the sulfate spray. It was thought that the brevetoxins would kill the Red Tide cells. **The entire situation began in September of 2016 and lasted through February of 2019.** (17 months) Throughout this time period, manatees, dolphins, various fish species, scallops, shrimp, clams, shell fish, invertebrates, sea turtles (as well as their nesting places), and shore birds along with their nesting places.
Source, Sarasota Herald Tribune: 04/02/20202, 02/29/2020, 02/28/2020. 02/29/2020. 02/01/2020, 11/05.2019, and 07/19/2019.

Prior to this time, Red Tide would occur once or twice a year and last a week or two at a time, NEVER as severe as the above described outbreak.

1b.) Another "great disaster" with no long- or short-term research, was kudzu. This started out as a cure to kill weeds on farms in Georgia and Mississippi. The Georgia Highway department thought that this was going to be such a great idea, that they decided to plant Kudzu along their highways, so they would not have to mow the grass. There was NO long-term research and the outcome was that this plant killed everything in its path. Under good conditions, Kudzu can grow up to one foot in a day! Today, Kudzu covers approximately 7.4 million acres in Georgia, Alabama, Florida, and Mississippi (states around the Gulf of Mexico). The ONLY thing that can slow Kudzu down, is a herd of goats.
Source: www.kudzuvine.com

1c.) Nutra Rats were brought into New Orleans to control the weeds along the bayous. At the time, the Nutra Rats looked like the best solution to the problem. Because the Nutra Rats were "foreign" to the area, they had no predators or enemies, and were able to become very prolific. The numbers of the Nutra Rats grew to the point that they could not be controlled and they ate everything in sight, along the bayous and neighboring properties. Soon what was a weed problem, became an erosion problem. Nothing could be controlled, the Nutra Rats ran wild, the erosion caused a tremendous amount of damage. With insufficient research, what looked good on paper caused a tremendous amount of damage to the environment.
Source: Louisiana Department of Conservation, Troy Mallach, 318-473-7751

Report Information Sources

1) South Siesta Renovation Project
2) Consultant Costal Eco-Group
3) Florida Department of Environmental Protection (FDEP)
4) Coastal Eco-Group
5) U.S. Army Corp of Engineers
6) National Oceanic and Atmospheric Association, HAB Bulletin
7) Florida Department of Environmental Protection, Noah Valenstein 02/28/20202
8) Sierra Club, David Cullen
9) UF/IFAS, Betty Staugler, Sea Grant Agent, Extension-Charlotte County
10) Suncoast Waterkeeper, Justin Bloom
11) The National Healthy Beaches Campaign (NHBC) Siesta Sand, 04/2020
12) NOVA, Southeastern University, Department of Marine and Environmental Services, David Kerstetter, Associate Professor

Additional information contact name and phone number is listed on the last page of the "Facts" document that is attached.

Attachments

Facts for NOT Approving the Fish Farm

Fish Farm Rebuttal

PUBLIC SUBMISSION

As of: 8/16/22, 2:49 PM
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Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0047
Comment from Key Homeowner, Siesta

Submitter Information

Name: Siesta Key Homeowner
Address:
Siesta Key, FL, 34242
Email: rick@siestabeach.us

General Comment

The proposal to create a fish farming area off the coast sounds to me like a positive idea. I think the fears about pollution are far-fetched. Should it be proven the case, then you can simply cease doing it. Otherwise, give it a go.

PUBLIC SUBMISSION

As of: 8/16/22, 2:57 PM
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Status: Posted
Posted: July 11, 2022
Tracking No. l5b-auht-3v84
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0048
Comment from Allemeier, David

Submitter Information

Name: David Allemeier
Address:
Siesta Key, FL, 34242
Email: allemeier@aol.com

General Comment

Please do not go ahead with the Fish Farm proposal off the coast of Sarasota, FL. The scare of red tide would only worsen if this project proceeded.
I'm a property owner on Siesta Key.

Thank you,
David Allemeier

PUBLIC SUBMISSION

As of: 8/16/22, 3:03 PM
Received: July 10, 2022
Status: Posted
Posted: July 11, 2022
Tracking No. l5f-fm0a-ttr3
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0049
Comment from ManaSota-88, Inc.

Submitter Information

Email: manasota88@comcast.net
Organization: ManaSota-88, Inc.

General Comment

ManaSota-88, Inc. recommends the National Oceanic and Atmospheric Administration not permit any commercial aquaculture in the Gulf of Mexico.

ManaSota-88, Inc. (hereinafter, "ManaSota-88"), is a public interest conservation and environmental protection organization, which is a Florida not-for-profit corporation and a citizen of the State of Florida. The corporate purposes of ManaSota-88 include the protection and preservation of water quality and wildlife habitat in Manatee and Sarasota Counties and, therefore, recommending that no commercial aquaculture should be permitted is within our corporate purposes.

The value of Florida’s biologically sensitive areas and endangered and threatened species should not be put at risk for floating fish farms.
We should not risk the productivity of our offshore or estuarine areas, which will ultimately prove to be more important for our future than harmful industrial fish farming.

Existing state and federal regulations do not address the significant damage fish farming has on the environment. There is no reason to believe that the NOAA will protect Florida's economy and environment from the potential serious environmental damage associated with industrial fish farming.

Industrial fish farming will place Sarasota’s coastal waters, an area of high environmental sensitivity and marine productivity, at risk.

Presently the region supports numerous species of wildlife, major commercial and recreational fisheries, and several species of endangered animals.SEP SEP
The potential to exacerbate

PUBLIC SUBMISSION

As of: 8/16/22, 3:08 PM
Received: July 10, 2022
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Posted: July 11, 2022
Tracking No. l5f-nxa0-twbm
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0050
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous
Email: bbbayou@gte.net

General Comment

All waters surrounding the United States have been fished in, providing both jobs and food. Regulations are given

Fishing has been ongoing on in the waters surrounding the United States, long before we were even formed as states.
When the native people used these water to catch fish, they treated it with utmost respect. We can hardly find this tribute
in the course of every day life.

Floridians have been against the use of our Gulf waters for drilling. The thought of inviting aqua farms in our waters would do more
harm than good. And it is my understanding all farms lose their qualities over time. We are having a difficult time managing our waters
from algae, etc.

There is also the dumping of bad water from the Lake Okochobee in to the gulf waters. So if we are not even treating the water before
being pumped out, how do you think we would be responsible for fish farms and the toxins involved.

On top of which there are a number of persons that refuse to eat farmed fish or shrimp.

Please do not start another project that has to be sat on to ensure adherence to the law. That opens the door to payoffs and
;looking the other way. Plus you want to put this farming in some the most important counties for tourism in the state.

PUBLIC SUBMISSION

As of: 8/16/22, 3:17 PM
Received: July 11, 2022
Status: Posted
Posted: July 12, 2022
Tracking No. l5h-04sl-6l8q
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0051
Comment from D, Tim

Submitter Information

Name: Tim D
Address:
FL,
Email: tdillingham34@gmail.com

General Comment

I think I can speak for the majority of SWFL in saying WE ABSOLUTELY DO NOT WANT Aquaculture or wind turbines in SWFL. First and foremost we have regular red tide events off our coasts almost every summer. The environmental impacts of a 500 acre fish farm is careless and threatens not only the livelihood of all of our commercial, charter and recreational fisherman. It will also have severe environmental impacts on the water quality specifically. 20,000 almaco jacks in a cage swimming in circles creates an awful lot of fecal waste which I'm assuming will change the water quaility. And the unnecessary risk of these farmed fish escaping and bringing potential diseases to our native species just isn't worth it. Also it's my understanding that thanks to our current administration that this is going thru whether we like it or not. So I say big business wants to get involved in your food supply by putting fish farms in our beautiful gulf of America waters, tell big business to put them over 200 miles offshore in over 2000 feet of water. That way you do not affect our reef species and corals. The currents are much more severe out deep which will help disperse fecal waste. You also will affect far less of our commercial, charter and recreational fisherman by stealing American citizen waters and giving them to private big business fish farm aquacultures. We already have the fish we need without these big fish farm corporations. Just provide a Fairness in Fisheries and stop destroying the American commercial fisherman who supplies his fellow Americans with true fresh local seafood. Caught by some of the hardest workers on planet earth. Y'all wanna kill everything in the Gulf? Then Keep putting in fish farms and wind turbines and oil rigs and let big sugar continue to pollute our lakes and rivers that flow directly into our gulf waters. Please keep in mind. When our Oceans die, we all die!!!

PUBLIC SUBMISSION

As of: 8/16/22, 5:20 PM
Received: July 11, 2022
Status: Posted
Posted: July 12, 2022
Tracking No. l5h-4z8s-i3nx
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0052
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous

General Comment

When reviewing the Summary of Expected Outcomes, the current projection for protecting the Gulf waters is neither acceptable or sustainable. Economic benefit for the area is of course of utmost concern. However, the long-term impacts expected do not currently support the benefit of short-term payoff. There is no other place like these precious and unique waters, wildlife, and habitat in America and it must be thoughtfully and intelligently fished. A suggestion is to work with the fishing communities which are already established here and to make profit by working to support estuary and bay health rather than to alter it beyond recognizability or repair.- A Manatee County native

PUBLIC SUBMISSION

As of: 8/16/22, 5:33 PM
Received: July 11, 2022
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Tracking No. l5h-961v-olo0
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Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0053
Comment from Joesel, William

Submitter Information

Name: William Joesel
Address:
Sarasota, FL, 34231
Email: joesels1@gmail.com
Phone: 7732973862

General Comment

A fish farm in the Sarasota area would not build the economy and opportunity, but endanger it. The amount of revenue the farm could produce would be dwarfed by the millions Sarasota could lose in tourism from farm pollution. Fish discharge and food could increase red tide blooms. Pollution and chemicals to prevent sea lice and disease could affect the marine environment. Sarasota and other Gulf communities' financial risk from the possible effects of offshore fish farms, such as increased red tide and marine environment degradation, is much greater than their limited potential revenue. The cage could break loose in hurricanes and fish escapes could affect native ecology and debris boating traffic. NOAA must consider the cumulative effects of a proliferation of farms, planned by proponents, throughout the Gulf. Federal waters are public owned, not corporate.

PUBLIC SUBMISSION

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Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0054
Comment from Schneider , Martin

Submitter Information

Name: Martin Schneider
Address: United States,

General Comment

This will promote red tide and pollution. We don't want this off of our coast.

PUBLIC SUBMISSION

As of: 8/16/22, 5:40 PM
Received: July 12, 2022
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Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0055
Comment from Winters, Kirk

Submitter Information

Name: Kirk Winters
Address:
Sarasota, FL, 34231
Email: kirkwinters4@gmail.com
Phone: 7036093540

General Comment

The fish farm proposed near Sarasota (E-3) could ruin Sarasota as we know it. Please do not approve it.

The farm would add huge amounts of nitrogen and phosphorus into the ocean. These two nutrients feed algal blooms that produce red tide, which are already a problem. The farm would threaten some of the most beautiful beaches in the world and could undermine the industry that is the lifeblood of Sarasota, tourism. And if a hurricane were to release the fish into the ocean, the impact on local ecosystems could be devastating.

For people seeking to vacation or move, Sarasota is among the top destinations in the US. How can it make sense to create near it a known threat that could devastate the local economy, eliminate thousands of jobs, undermine the tax base, and basically shut down the town as we know it today?

Please do not approve the E-3 fish farm near Sarasota.

Kirk Winters
Sarasota, FL

PUBLIC SUBMISSION

As of: 8/16/22, 5:43 PM
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Status: Posted
Posted: July 12, 2022
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Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0056
Comment from Turner, Linn

Submitter Information

Name: Linn Turner
Address:
Sarasota, FL, 34231

General Comment

In my opinion, Sarasota and the Gulf of Mexico are inappropriate to be AOA's. A fish farm near Siesta Key Beach, rated the #1 beach for many years is not a place for fish farming in our waters. There is so much pollution in the gulf and oceans now and this would contribute to red tide blooms and degrade marine life. I personally lived through a very dangerous red tide at Siesta key and Little Sarasota Bay beginning October 2017 to 2019. Ive also experienced first hand hurricanes in 2017. Please save our gulf and ocean and do not allow fish farming in the water. What a travesty that would be.

PUBLIC SUBMISSION

As of: 8/17/22, 5:04 PM
Received: July 13, 2022
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Posted: July 13, 2022
Tracking No. l5j-mnnt-dx0n
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Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0057
Comment from Dickinson, Linda

Submitter Information

Name: Linda Dickinson
Address:
Sarasota, FL, 34242
Email: lindadickinson@comcast.net
Phone: 9413503304

General Comment

I am hugely opposed to allowing aquaculture in the Gulf of Mexico. The dangers to native species, water quality and the development of red tide are too great. Stop this environmental “experiment”. It is an unnecessary money making venture that risks life quality. Our oceans are already endangered.

PUBLIC SUBMISSION

As of: 8/17/22, 5:06 PM
Received: July 13, 2022
Status: Posted
Posted: July 13, 2022
Tracking No. l5j-n5nl-0tk5
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0058
Comment from Chiocchio, Philip

Submitter Information

Name: Philip Chiocchio
Address:
Sarasota, FL, 34234
Email: chiocchio@me.com

General Comment

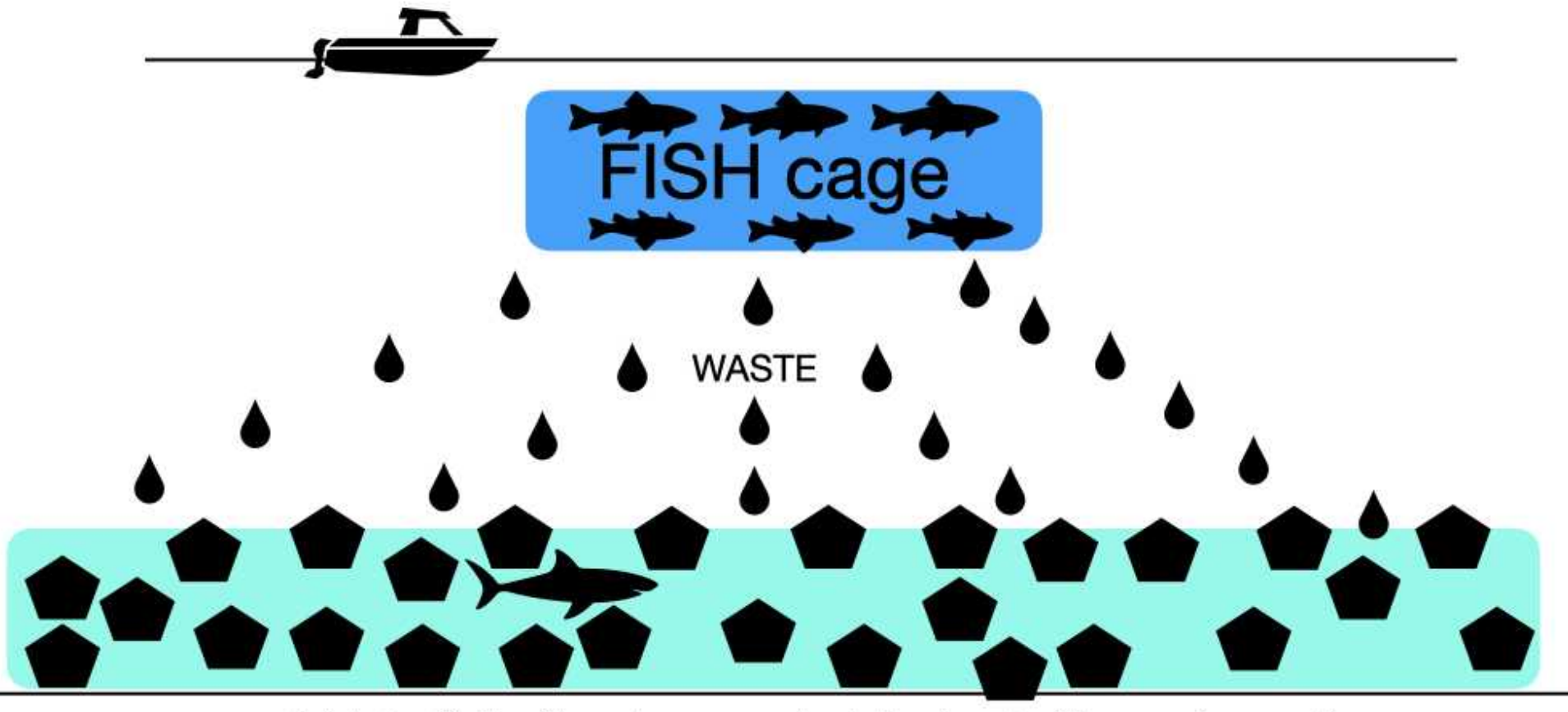
Since food will be introduced into this aquaculture experiment and more fish waste will be concentrated below I suggest the construction of a seabed artificial reef under and much wider than the floating aquaculture pen for grouper, crabs, live corals, tunicates, polycheate worms and other sea life that would benefit from this disruption of the ecosystem and provide new fishery habitat and to filter the water. Then test the water and expand the seabed artificial reef as needed to use all of the "run off".

Attachments

Substrate filtering.001

GULF AOA PEIS

Under cage artificial reef to utilize fish waste



Substrate artificial reef to capture excrement and other elements of the aquaculture operation

PUBLIC SUBMISSION

As of: 8/17/22, 5:18 PM
Received: July 13, 2022
Status: Posted
Posted: July 14, 2022
Tracking No. l5k-3zic-eyk7
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0059
Comment from Hoffschmdt, Kristin

Submitter Information

Name: Kristin Hoffschmdt
Address:
Venice, FL, 34285
Email: kristinhoffschmidt@gmail.com

General Comment

I am opposed to the creation of "Aquaculture Opportunity Areas" in the Gulf of Mexico. The large-scale, industrial fish farms that are proposed will further harm endangered species and pollute the ocean with the concentrated fish waste and chemicals, such as antibiotics and pesticides. I live in Sarasota County where a site is proposed to be offshore from Venice and Englewood. We have had terrible red tides - last summer was not the worst but the effects devastated the region. Red tide thrives on nitrogen and other compounds that will be increased through the fish waste. Red tide harms marine life, human health, and the economy of our state that depends on clean water. Large scale fish farms of this type are destructive and not sustainable and should not be developed anywhere. The short-term economic gain is not worth the long-term devastation that will result.

PUBLIC SUBMISSION

As of: 8/17/22, 5:23 PM
Received: July 14, 2022
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Posted: July 15, 2022
Tracking No. l5l-atr8-lpod
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0060
Comment from Lindner, Richard

Submitter Information

Name: Richard Lindner
Address:
North Port, FL, 34287
Email: rlindner2@verizon.net
Phone: 9414230165

General Comment

Aquaculture may work in the cold, open waters of the oceans, but when the Gulf is cooking at 90 degrees or more, it’s a very bad idea. Our waters are compromised enough, with years of red tide and algae problems. I’m a resident of Sarasota County and an avid kayaker. We recently kayaked across Lemon Bay from Cedar Point in Englewood to Stump Pass. ALL the seagrasses are dead, covered with silt and algae, and they disintegrated under our paddles. No wonder the manatees are dying. Please don’t pour more nutrients into our already impaired waters.

PUBLIC SUBMISSION

As of: 8/17/22, 5:26 PM
Received: July 15, 2022
Status: Posted
Posted: July 15, 2022
Tracking No. l5m-qcx8-w2ql
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0061
Comment from Cannon, Margaret Jean

Submitter Information

Name: Margaret Jean Cannon
Address:
Venice, FL, 34285
Email: mjcannon@gmail.com
Phone: 9413130559

General Comment

My name is Margaret Jean Cannon. I live on the Beach in Venice, Fl. I am currently engaged in efforts to restore our local saltwater canals and waterways to support juvenile marine life. Many of our waterways are suffering from the change in climate, including warmer waters and the lingering impacts of red tide outbreaks. The offshore fish farm adds more threats to our waters and should not be approved. Fish farming has many benefits, but let's start this on-shore where we can study and learn how to manage these operations. In open waters, many fish in pens will create pollutants and have unintended consequences. These consequences may include an increased risk for red tide outbreaks. The lack of actual persons on board daily to perform oversight and the potential impact on current fishing operations (both recreational and industry) are also unknown. Also, what happens to an anchored net during hurricane season makes this project an unacceptable risk for our local water environment and beaches in this area.

PUBLIC SUBMISSION

As of: 8/17/22, 5:32 PM
Received: July 18, 2022
Status: Posted
Posted: July 19, 2022
Tracking No. l5r-jssj-wim4
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0062
Comment from Hill, Michael

Submitter Information

Name: Michael Hill
Address:
Bradenton, FL, 34203
Email: MikeLHill68@gmail.com

General Comment

I am against commercial fish farms in the Gulf of Mexico.
1) Commercial fish farming is very likely to screw up the complex, centuries-old natural aqua cultural systems in this region. We don't know the existing life systems of Gulf habitats to guarantee that aquaculture will no harm them. In fact Mankind has yet to learn that "playing God" usually backfires, as we learn, too late, that our projects have "unintended consequences".
2) Aquaculture is very likely to make already problematic Red Tide blooms worse by introducing yet more nitrogen in the area with commercial fish food.
3) Florida’s biologically sensitive areas - and endangered and threatened species - should not be put at risk.
4) NOAA does not have the necessary manpower, resources, and budget to adequately staff and oversee industrial aquaculture. I know, I used to work for NOAA/NESDIS!

PUBLIC SUBMISSION

As of: 8/17/22, 5:36 PM
Received: July 20, 2022
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Posted: July 21, 2022
Tracking No. l5t-z0gd-lc1g
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0063
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous
Email: steveandgina44@gmail.com

General Comment

i am most distressed by the concept of fish farming in the Gulf of Mexico in nearby FL waters. As the daughter,sister,spouse of commercial fisherman I have witnessed multiple rules, regs and decisions that have impacted our industry and ability to be productive and earn a basic living in our chosen field. This has all likelihood of being the most detrimental.
The chosen areas are in prime reef fish territory. So, removing the industry from vital and viable areas that are within reasonable distance from shore?
This is hurricane prone area. what can possibly secure this netting,unless there is also destruction of bottom habitat ? Even if it is secured,what can possibly withstand the wave and wind action during a storm to prevent escape?
Which creates another scenario when, not if escape occurs, are the projected species native to this area and if they are is a mass escape going to upset the delicate balance of nature?
This is also an area that has issues on a too frequent basis of RED TIDE and other man induced blooms of bacteria that have cause water quality disasters.
What does the feeding process entail and what about overfeeding, what damage to that balance ?
Are medications used? what keeps that from affecting other species?
What about the quantity of waste product from a mass on fish out of place in the environment?
I am opposed to fish farms in everway

Gulf of Mexico Fishery Management Council
Managing Fishery Resources in the U.S. Federal Waters of the Gulf of Mexico

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www.gulfcouncil.org

July 21, 2022

Mr. Andrew Richard
Regional Aquaculture Coordinator
NOAA Southeast Regional Office
263 13th Avenue South
St. Petersburg FL 33701

RE: Notice of Intent to Prepare a Programmatic Environmental Impact Statement (PEIS) for Identification of Aquaculture Opportunity Areas (AOA) in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Dear Mr. Richard,

The Gulf of Mexico Fishery Management Council (Council) appreciates the opportunity to comment on the Notice of Intent to prepare a PEIS for identification of AOAs in federal waters of the Gulf of Mexico (Gulf). During its June 2022 meeting, the Council received a presentation from the National Marine Fisheries Service on the results of the AOA Atlas for the Gulf, which identified nine options for siting aquaculture in potential AOA locations. Additionally, the Council has received public comments highlighting uncertainties of the effect aquaculture operations may have on the marine ecosystem as well as commercial and recreational fishing activities.

Although the precision siting model utilized trawl data from the shrimp electronic logbook program for optimally siting a potential AOA in the Gulf, it didn't appear to fully capture some of the potential areas of interactions with the shrimp industry. Specifically, the Council notes that Option C-11 is an area associated with high shrimp trawling effort. At its December 2021 meeting, the Council's Shrimp Advisory Panel expressed similar concerns regarding Option C-11, as well as for Option C-13. Therefore, the Council requests reconsideration of the area selection for Option C-11 in order to minimize interactions with shrimp trawling.

Stakeholders specifically expressed concerns about the potential effects that aquaculture activities would have on red grouper habitat off the west coast of Florida in Options E-1, E-3, and E-4. This area is susceptible to red tide blooms which in addition to increased nutrient discharges have contributed to mortality events of reef fish species off the west coast of Florida, and stakeholders are concerned that the effluent from aquaculture practices may have a compounding negative impact on an already stressed environment.

The following is a list of public comments received during the June 2022 Council meeting and through informal discussions with stakeholders that address general thoughts about aquaculture at-large in the Gulf:

- Concern that hurricanes would cause cage displacement and/or escapement and derelict cages could damage bottom tending fishing gear as unmarked hazards
- Concern that aquaculture pens could pose a navigational hazard if not clearly marked and could be vectors of disease.
- Concern for how aquaculture would impact the price of commercially harvested fish and the commercial industry.
- Support for the potential benefit aquaculture could bring to the commercial sector by creating a market for lesser known fish like cobia and almaco jack.
- Support for the potential benefit aquaculture could bring to working waterfront communities by bolstering economic opportunities.

The verbatim minutes of the public testimony from the June Council meeting can be found here: https://gulfcouncil.org/council-meetings-archive/. The Council looks forward to continuing collaboration with NOAA Fisheries as AOAs are being identified. Thank you again for affording the Council the opportunity to comment on this endeavor.

Sincerely,

Dale A. Diaz

Mr. Dale Diaz
Council Chair

Cc: Gulf Council / Council Staff / Jack McGovern, Ph.D. / Clay Porch, Ph.D. / John Walter, Ph.D.

PUBLIC SUBMISSION

As of: 8/18/22, 8:15 AM
Received: July 21, 2022
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Posted: July 22, 2022
Tracking No. l5v-d6dp-1yu3
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0064
Comment from Southern Shrimp Alliance

Submitter Information

Email: john@shrimpalliance.com
Organization: Southern Shrimp Alliance

General Comment

Please see attached comments from John Williams, Executive Director, Southern Shrimp Alliance

Attachments

SSA Comments AOA PEIS notice of intent 7-21-22

Southern Shrimp Alliance

P.O. Box 1577 Tarpon Springs, FL 34688
955 E. MLK Dr. Suite D Tarpon Springs, FL 34689
727-934-5090 Fax 727-934-5362

July 21, 2022

TO: Andrew Richard
Regional Aquaculture Coordinator
NMFS, Southeast Regional Office
St. Petersburg, FL 33701

RE: Gulf AOA PEIS – Notice of Intent to Prepare a PEIS, NOAA-NMFS-2022-0044, 87 FR 33124, June 1, 2022

The Southern Shrimp Alliance (SSA) appreciates the opportunity to provide the following comments regarding NOAA's Notice of Intent (Notice) to prepare a Programmatic Environmental Impact Statement (PEIS) regarding Aquaculture Opportunity Areas (AOA) in the Gulf of Mexico (Gulf).

SSA's membership is comprised of many small, family-owned businesses in the shrimp fisheries and associated shoreside enterprises operating in coastal communities in all eight warm-water shrimp-producing states from North Carolina to Texas. The contemplated development of offshore aquaculture has the potential to adversely impact both the at-sea and shoreside sectors and the associated communities of this most valuable fishery in the Gulf.

SSA understands that this Notice and request for public comments represents the agency's "scoping process' for the purposes of developing a draft PEIS, and that this will be followed by additional opportunities to provide public comments on the future publication of that draft PEIS, and then again on aquaculture project-specific proposals. With that in mind, we call your attention to comments SSA submitted in response to the agency's Request for Information on December 21, 2020.[1] SSA requests that those comments be incorporated as part of this comment, and as part of any future relevant Records of Decision issued by the agency.

[1] https://www.regulations.gov/comment/NOAA-NMFS-2020-0118-0035

The following comments are in three parts. First are General Comments followed by comments addressing two specific areas identified in the AOA Atlas, followed by comments addressing the eleven specific questions identified in the Notice under the section entitled "*Request for Identification of Potential Alternatives, Information, and Analyses Relevant to the Proposed Action*".

General Comments

Of paramount interest to SSA is, of course, to prevent any adverse direct, indirect, and cumulative impacts of offshore aquaculture development on the domestic shrimp industry including both the at-sea and shoreside sectors. Historically, the shrimp fishery has been and continues to be the most valuable commercial fishery in the Gulf and is a very important source of employment and economy in the region. For many years it was also the most valuable fishery in the Nation.

Consequently, it is not without some irony and sensitivity for the domestic shrimp industry to be commenting on this initiative to potentially facilitate aquaculture development in the Gulf given that the primary reason our fishery is no longer the most valuable in the Nation - and why so many shrimp fishermen, vessels, shoreside facilities and jobs have been forced out of this industry - has been the severe price-depressing effects imported farm-raised shrimp continue to have in the U.S. and global marketplace.

Shrimp prices paid to U.S. shrimp fishermen have never recovered from the advent and rapid expansion globally of farmed shrimp production and imports which began two decades ago, and which continues today. In the 11 months since the U.S. International Trade Commission first began reporting separate records of farm raised and wild shrimp imports (July 2021 – May 2022), the U.S. imported 1.35 billion pounds of farm-raised warmwater shrimp valued at a total of $5.6 billion.[2] In rough comparison, 2020 landings of all wild-caught shrimp species in the Gulf states have declined to 175.3 million pounds with a landed value of $341.5 million.[3]

SSA believes the development, operation and management of a new aquaculture industry and any privileges granted to it to profit from the use of public resources must not be achieved at any detriment to U.S. shrimp fishermen. SSA is likewise concerned with the impacts of this new development on other traditional fisheries for wild stocks in the Gulf, and on fishing communities that have supported and depended on shrimp and other commercial fisheries along the coast for many decades. An offshore aquaculture industry is not a legitimate substitute for the heritage or economy of our fishing communities, or for the optimum utilization of our nation's wild fishery resources.

Therefore, the question of aquaculture facility siting being addressed through this AOA process is of paramount interest and concern, and so we will continue to work through this process to ensure that the directive to the Secretary of Commerce set forth in section 7 of Executive Order 13921 (EO 13921) "*to minimize unnecessary resource use conflicts*" in identifying AOA's is

[2] U.S. International Trade Commission, *Dataweb*: https://dataweb.usitc.gov/

[3] NOAA, Fisheries if the United States, 2020. https://www.fisheries.noaa.gov/resource/document/fisheries-united-states-2020

achieved.[4]

As we read it, a premise of this EO 13921 is to increase U.S. seafood production by supplementing the harvest of wild caught species with cultured product that will help to reduce the US trade deficit in seafood products by increasing U.S. production to satisfy increasing U.S. market demand. More explicitly, EO 13921 states as among its core Purposes to "*revitalize our Nation's seafood industry; get more Americans back to work; and put healthy, safe food on our families' tables*."

With these overarching purposes and goals in mind, one should reasonably expect that nothing in this initiative will have the result of reducing any U.S. seafood production or jobs, including especially in our domestic fisheries. It would be utterly incoherent with the stated purposes and objectives of EO 13921 to substitute one source of domestic seafood production (commercial fisheries) with another (offshore aquaculture). Not only would that be inconsistent with the agency's fundamental statutory mandate set forth in National Standard 1 of the Magnuson-Stevens Fisheries Conservation and Management Act (MSA) (16 U.S.C 1851(a)(1)) for U.S. commercial fisheries to achieve the Optimum Yield (OY) and to "*provide the greatest overall benefit to the Nation*", but it would also be consistent with this Administration's policies for achieving environmental justice (see comments below). The goal cannot be to reduce the U.S. seafood trade deficit at any cost, if that cost is the reduction of wild shrimp production or any other wild stock fisheries. This process cannot cause U.S. commercial fishermen including Gulf shrimp fishermen to bear a disproportionate burden - or any burden - for achieving the Nation's offshore aquaculture development ambitions.

Yet, without very careful planning and consideration of the full scope of direct, indirect, and cumulative impacts – some of which are likely irreversible - this could well be the result of this initiative. Just a few of the potential and as-yet unknown adverse impacts of offshore aquaculture activities and seafood production that must be considered and addressed include –

- the loss of access to traditional fishing grounds through poor aquaculture facility siting decisions and the cumulative impacts when coupled with the siting of offshore energy facilities.
- the loss of access to traditional fishing grounds to debris from the damage or destruction of aquaculture gear and facilities not designed or constructed to withstand the wind and waves generated by increasingly powerful storms in the Gulf.
- the spread of disease into the essential brackish and marine habitats and ecosystems on which shrimp depend.
- the spread of disease into the habitats and ecosystems of protected species for which the shrimp industry is otherwise held accountable under federal statutes.
- the inevitable escapement of species from aquaculture facilities that become invasive and cause harm to endemic species and their ecosystems.
- the reduction in prices paid to U.S. commercial fishermen and the consequent loss of businesses, jobs and seafood production caused by the distortion of the existing supply/demand structure of the market for wild-caught species.

[4] 85 FR 28471, May 12, 2020, https://www.federalregister.gov/documents/2020/05/12/2020-10315/promoting-american-seafood-competitiveness-and-economic-growth

- to the extent the U.S. government provides a disproportionate level of subsidies or other economic support for the aquaculture industry, such as through Congressional appropriations and/or federal grants, U.S. fisheries for the same species will face a competitive disadvantage in the marketplace and a likely reduction in production.

Again, a strategy to reduce the U.S. seafood trade deficit that has the effect of reducing the viability of U.S. fishery businesses and the production of wild-caught seafood as a trade-off for increasing the production of seafood through offshore aquaculture is simply not rational.

Finally, we call the agency's attention to section 4 of EO 13921 which calls on each Regional Fishery Management Council (Council), including the Gulf of Mexico Council, to generate recommendations "*to reduce burdens on domestic fishing and to increase production within sustainable fisheries*". We hope that the agency and the Gulf Council can see the potential for a stark conflict between this directive and any aquaculture development activity that would place new burdens on U.S. wild-stock fisheries or reduce their viability or production.

AOA Atlas

The preceding General comments are very similar to those previously cited comments SSA submitted to NOAA on December 21, 2020, in the early days of this AOA initiative. Those comments also included SSA's recommendation that the most effective way for the agency to ensure that it achieves the EO 13921 stated objective to minimize unnecessary conflicts with the Gulf shrimp trawl fishery is to avoid identifying AOAs or siting aquaculture facilities in areas of significant shrimp fishing effort altogether.

As noted in those previous comments, extensive and precise fishing effort data for the penaeid shrimp trawl fishery has been collected and analyzed by NOAA since at least 2004 through the use of Electronic Logbooks (ELBs). This data indicates there is a sharp demarcation of penaeid shrimp fishing effort at approximately the 90 m – 100 m depth contour in the north/central and western Gulf. Therefore, SSA recommended that the agency establish the minimum depth of any AOA as 90 m in those areas. We note this criterion would enable AOA's to be located well within the 50 m – 150 m preferred depth zone identified by NOAA and aquaculture stakeholders.

Also noted was that precise fishing effort data for the Gulf deep-water royal red shrimp trawl fishery has been collected and analyzed by NOAA using ELBs. SSA recommended that AOAs should not be established in these specific areas of fishing effort to minimize unnecessary conflicts of aquaculture activities with this fishery.

Despite that input and rationale, two of the nine potential AOA Options NOAA chose in its "*Aquaculture Opportunity Area Atlas for the US Gulf of Mexico*" [5] are areas identified as having "high" penaeid shrimp fishing effort. These were identified as Options C-11 and C-13 and are portrayed in Appendices 1 and 2 of these comments.

SSA strongly recommends that these two Option areas, C-11 and C-13, be removed from further consideration for aquaculture development given their inconsistency with the plainly stated

[5] https://coastalscience.noaa.gov/data_reports/an-aquaculture-opportunity-area-atlas-for-the-u-s-gulf-of-mexico/

objectives of EO 13921. Alternatively, as can easily be seen in the maps depicting Option areas C-11 and C-13 in Appendices 1 and 2, a 3-5 nm shift to the east/southeast of Option area C-11 and a 3 nm shift to the northeast of Option area C-13 would completely eliminate any conflict with shrimp fishing grounds. These would be seemingly nominal spatial modifications to these areas. There is no reason to locate an AOA or any future aquaculture facilities in an area with shrimp fishing effort – there is plenty of room for both!

Confirming this reality has been SSA's subsequent experience with NCCOS's spatial modeling work in the Gulf regarding BOEM's development of offshore wind energy. That 'next generation' suitability (deconflicting) modeling of 6 submodels incorporated areas of moderate to high shrimp fishing effort into its "Constraints" submodel. Spatial shrimp fishing effort data was also incorporated into its "Fisheries" and "Industry and Operations" submodels.

The net result was that those areas characterized as moderate-high shrimp fishing effort (where 4.5 days of shrimp fishing effort occurred annually within a 10-acre grid cell) were completely excluded from areas identified as suitable for wind energy development. The application of this newer generation of spatial modeling methodology, including, *inter alia*, the exclusion of moderate-to-high shrimp fishing effort areas, would have resulted in AOA Option areas C-11 and C-13 being excluded from consideration altogether.

With that in mind, SSA again strongly recommends and requests that Option areas C-11 and C-13 be excluded from further consideration in the PEIS process - both as a matter of consistency with the stated EO 13921 policy, and through the application of this next generation of spatial modeling wherein all areas of moderate to high shrimp fishing areas are excluded from consideration as AOAs.

Responses to "*Request for Identification of Potential Alternatives, Information, and Analyses"*

According to the Notice, "*NMFS requests data, comments, views, information, analysis, alternatives, or suggestions on the proposed action from the public; affected Federal, State, Tribal, and local governments, agencies, and offices; the scientific community; non-governmental organizations; industry; and all other interested parties. Specifically, we are soliciting information and feedback on":*

1. The scope of the NEPA analysis, including the range of reasonable alternatives and how many or which locations should be considered and evaluated;

For the reasons explained above, the range of reasonable alternatives to be considered in this PEIS should not include any alternatives that would lead to any offshore aquaculture operations in areas less than 90 m in depth and/or in areas of moderate to high (if any) shrimp fishing effort. Again, to do so would be inconsistent with the stated directives of EO13921 and would not be based on the best scientific information available as set forth in the above referenced 'next-generation' spatial suitability modeling NOAA's NCCOS performed in collaboration with BOEM. Further, the range of reasonable alternatives should include those that provide for pilot-scale projects to demonstrate an operation's compatibility with the Gulf ecosystem and other ocean uses prior to full-scale operations.

To be sufficient, the NEPA analysis of the chosen reasonable alternatives must fully include analysis of all potential direct, indirect and cumulative impacts of any activity associated with offshore aquaculture development in the Gulf on the full range of coastal, benthic, and pelagic biological resources, ecological communities and habitats, fish and invertebrates, marine mammals, sea turtles

and water quality. Because some of those impacts could be irreversible, it is imperative that NOAA and its cooperating and partner agencies 'get it right' the first time.

SSA notes that NEPA regulations have and continue to be subject to some impactful dynamics over the past two years that could have significant implications for NOAA's NEPA analyses under this action. More specifically, very significant substantive changes were made to the NEPA regulations through a final rule issued by the Council on Environmental Quality (CEQ) on July 16, 2020, [6] ("2020 regulations") which took effect on September 14, 2020, in response to directives set forth in Executive Order 13807 on August 15, 2017. [7] Some important elements of those regulatory changes were substantively reversed by the CEQ in a Final Rule published on April 20, 2022.[8]

SSA stresses that NOAA's analyses under this PEIS must be fully consistent with those recent changes to the regulations including especially the following critical definitions now set forth at 40 CFR § 1508.1:

> *"(g) Effects or impacts means changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and include the following:*
>
> *(1) Direct effects, which are caused by the action and occur at the same time and place.*
>
> *(2) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.*
>
> *(3) Cumulative effects, which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.*
>
> *(4) Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effects will be beneficial."*

With these definitions in mind, particularly the definition of *Cumulative effects*, we stress that NOAA must analyze the cumulative effects of offshore aquaculture when added to the effects of other federal actions including, *inter alia*, those involving the development of offshore oil and gas as well as offshore wind energy in the Gulf.

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[6] https://www.federalregister.gov/citation/85-FR-43304

[7] https://www.federalregister.gov/documents/2017/08/24/2017-18134/establishing-discipline-and-accountability-in-the-environmental-review-and-permitting-process-for

[8] https://www.federalregister.gov/documents/2022/04/20/2022-08288/national-environmental-policy-act-implementing-regulations-revisions

Further, the potential effects (impacts) on the Gulf shrimp industry are not limited to those directly impacting (displacing) fishing operations caused by aquaculture, oil and gas, or offshore wind energy facility and infrastructure siting – or to the loss of access to fishing grounds due to the presence of debris from the damage or destruction of such facilities and infrastructure from storms. In fact, the Gulf shrimp resource as well as the various protected and managed species for which the shrimp industry is otherwise held accountable are also subject to potential impacts of aquaculture, oil and gas, and offshore wind energy development. Such impacts will, of course, have direct, indirect, and cumulative impacts on the shrimp industry. A comprehensive analysis and consideration of such impacts must be a central element of the PEIS.

2. The type of aquaculture (e.g., finfish, shellfish, seaweed, multi-species aquaculture) that could be supported or analyzed in a proposed AOA location;

All of the 9 areas identified in the AOA Atlas are likely conducive to finfish aquaculture given depth and distance from shore. However, with the possible exception of Option area C-13 identified in the AOA Atlas, these areas seem unlikely to be conducive to shellfish or seaweed culture given the distances from shore - although perhaps it would be feasible to incorporate shellfish and/or seaweed culture with finfish in a multispecies operation.

Setting the AOA Atlas locations aside, as a general matter, finfish operations present greater threats to water quality and in that respect have greater potential ecological impacts than shellfish and seaweed culture which tend to have neutral and perhaps in some cases positive impacts on water quality. Thus, for water quality purposes, finfish operations should be located further offshore while shellfish and seaweed operations are more suitable for nearer shore locations. That said, if the preferred depth for AOA remains at 50 m to 150 m, it again seems likely that operations within AOAs would be limited to finfish operations.

3. Ecologically, economically and socially suitable species and gear for aquaculture that could be analyzed for a proposed AOA location;

The PEIS must fully analyze the direct, indirect, and cumulative impacts associated with, *inter alia*, the following:

- the potential for a species that is produced in an aquaculture operation in the Gulf to compete directly in the marketplace with the same species harvested in a commercial fishery and cause adverse and potentially irreversible financial impacts on those commercial fishermen and associated infrastructure. The prices paid to commercial fishermen are typically highly sensitive to the supply/demand relationship and so the stability of that relationship can be distorted by the introduction of a substantial new supply of that species through aquaculture. The experience of the Gulf shrimp fishery with respect to the price-depressing effects of farmed shrimp imports certainly confirms this truth. As discussed in our General comments above, to replace seafood produced in a sustainable fishery with the same seafood produced in an aquaculture operation simply makes no sense and would certainly not achieve the stated objectives of EO 13921.

- the potential for non-endemic and non-native (exotic) species in aquaculture operations to become invasive and have adverse impacts on other species and broader impacts on Gulf ecosystems. NOAA Fisheries defines ‘invasive species’ as those exotic species that

successfully reproduce in their new environment. It considers them to be "*one of the greatest threats to marine and coastal biodiversity worldwide, second only to habitat loss",* and that it *"recognizes that invasive species have a profound effect on aquatic ecosystems and is working to protect our coasts from these invaders."* [9] Given the extremely high probability of the escapement of any non-endemic or non-native species from an offshore aquaculture facility in the Gulf- especially given the increasing frequency and intensity of high-energy weather events in the Gulf – the adverse impacts of such escapement of an invasive species may be irreversible and thus, present an unacceptable risk. Further, these impacts must be analyzed in the cumulative context taking into account the impacts of other federal actions on those Gulf ecosystems.

- the potential for cultured native/endemic and non-native/non-endemic species of finfish, shellfish or seaweeds that escape into the wild to adversely alter (impact) the natural genetics of wild finfish, shellfish, and seaweed populations. These impacts may also be irreversible.
- Given the likelihood for infectious diseases associated with certain species to occur in offshore aquaculture operations, the impacts of the spread of those diseases to other wild species and the Gulf ecosystem.

4. Monitoring and reporting requirements for owners and operators of aquaculture facilities that could mitigate impacts to managed and non-managed fishery resources, protected species, habitat, water quality, storm, navigation, economic, social, cultural and other impacts;

The PEIS must analyze the full range of required best management practices for monitoring and reporting to include, *inter alia*, the following:

- monitoring of compliance with all U.S. Coast Guard requirements for navigational safety including charting, marking, lighting and electronic technologies.

- requirements for on-site human and remote, real-time monitoring and reporting of water quality, animal health (e.g., disease), and gear condition/integrity.

- distance from shore siting considerations that relate to the effectiveness of such human and remote monitoring systems and to the timeliness of responses to problems that inevitably develop.

- on-site supervision by competent veterinarians of the use of any veterinary drugs including antibiotics and anti-fungal agents.

- establishment and federal enforcement (monitoring) of requirements to ensure that aquaculture facility operators are held liable - and maintain sufficient resources to pay – for the costs of the timely mitigation and/or remediation of the inevitable impacts of natural disasters, disease and escapement. This to include an analysis of whether operators should be required to meet the same US ownership and control requirements that apply to U.S. fishing vessels as a means to ensure that facility operators remain susceptible to liability enforcement.

[9] https://www.fisheries.noaa.gov/insight/invasive-and-exotic-marine-species)

- establishment and federal enforcement (monitoring) of requirements to ensure the timely removal of facilities and to return the ocean and seafloor to it pre-permitted condition, analogous to what BOEM requires for OCS oil and gas facilities. NOAA must ensure that offshore aquaculture operators maintain the financial and operational capability, integrity, and competence to properly and timely decommission all facilities. Facilities left in place too long – perhaps even abandoned for financial reasons – must be removed to avoid inevitable impacts, and debris left behind on the seafloor prevents fishing access and/or causes gear damage.

5. Potential adverse, beneficial, neutral, or cumulative impacts to biological, physical and ecological resources, including potential interactions with marine mammals and other species protected by the Marine Mammal Protection Act or Endangered Species Act, essential fish habitat designated under the Magnuson-Stevens Act, and other sensitive, managed, or protected habitats in the Gulf of Mexico;

Joint Amendment 27/14

In 2007 the Gulf Council adopted, and NOAA subsequently approved and implemented, Joint Reef Fish Amendment 27/Shrimp Amendment 14 ("Joint Amendment).[10] Consistent with MSA requirements, the primary purpose of the Joint Amendment was to establish a rebuilding plan for the overfished Gulf red snapper stock. Among the provisions set forth in this Joint Amendment was the requirement for the Gulf shrimp trawl fishery to substantially limit its fishing effort within a well-defined juvenile red snapper habitat area in the central and western Gulf as an effective tool to reduce overall red snapper fishing mortality. That juvenile red snapper habitat area is defined as the 10-30 fathom depth zone within NOAA statistical zones 10-21 (see Figure 3.2.1.1 of the Joint Amendment), and the effort cap has since been periodically adjusted to reflect the biological status of the red snapper stock.

As set forth in the Joint Amendment, the failure of the shrimp fishery to comply with the specific shrimp fishing effort cap in this juvenile red snapper habitat area can result in restrictions on the fishery potentially to include large-scale fishery closures. Such closures would have significant adverse socio-economic impacts on the shrimp industry.

To the extent that offshore aquaculture development in the Gulf adversely impacts the red snapper stock and, thus, undermines the red snapper rebuilding plan, the shrimp fishery may be subject to additional restrictions that would have significant adverse socio-economic impacts on the shrimp industry.

Therefore, the PEIS must analyze such potential direct and indirect impacts of offshore aquaculture development on juvenile red snapper habitat as identified in the Joint Amendment, on the status of the red snapper stock and its rebuilding plan, and on the Gulf shrimp industry.

As part of this analysis, these impacts must also be considered in the cumulative impact context with other activities including *inter alia* other commercial and recreational red snapper fisheries as well as

[10] https://gulfcouncil.org/wp-content/uploads/FISHERY%20MANAGEMENT/SHRIMP/amendments/Final%20RF%20Amend%2027-%20Shrimp%20Amend%2014.pdf

offshore oil, gas and wind energy development in the Gulf that my impact such habitat, the red snapper stock and rebuilding plan, and the shrimp industry.

Essential Fish Habitat

The PEIS must analyze any direct, indirect, and cumulative impacts of offshore aquaculture development in the Gulf on Essential Fish Habitat (EFH) pursuant to the MSA.

Specifically, NOAA must follow a process that respects and is in full compliance with MSA mandates to develop measures to avoid, mitigate and offset the impacts of offshore aquaculture in the Gulf of EFH identified by NOAA.

A stated Purpose of the MSA is "*to promote the protection of essential fish habitat in the review of projects conducted under Federal permits, licenses, or other authorities that affect or have the potential to affect such habitat.*" [11]

The term 'essential fish habitat' is defined in the MSA as "*those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity*." [12]

The Gulf Council and NOAA have identified EFH for a number of species in the Gulf including, *inter alia* shrimp, the 'reef fish' species complex, and coral, each of which are of interest to the shrimp industry. [13]

Any adverse impacts of NOAA's action to develop offshore aquaculture in the Gulf that adversely impacts shrimp EFH, red snapper EFH or Coral EFH as identified by NOAA will have a direct adverse impact the shrimp industry. Consistent with its MSA mandates, NOAA must identify measures it will take to avoid, minimize, mitigate, or offset any adverse impacts on EFH.

Shrimp EFH is, of course, central to the biological production of shrimp including reproduction, feeding and growth. Any adverse impacts on that biological production caused by any offshore aquaculture development and operational could lead to a reduction in the Optimum Yield (OY) for each shrimp species established by the Gulf Council and NOAA pursuant to the MSA, lead to limits on the authorized catch of shrimp by the fishery and, consequently, have adverse social and economic impacts on the shrimp industry including the many small, family-owned fishing and shoreside infrastructure businesses and coastal communities that depend on it.

The 'reef fish' complex in the Gulf includes red snapper for which the shrimp industry is held strictly accountable as a bycatch species. As noted above, in 2008, the NOAA approved the Gulf Council's Amendment 14 to the Shrimp Fishery Management Plan in which the shrimp industry is held responsible in part for rebuilding the red snapper stock. As part of that red snapper 'rebuilding plan', Amendment 14 includes provisions that hold the Gulf shrimp fishery strictly accountable for maintaining the level of shrimp fishing effort in specific extensive areas of the Gulf below a specified cap. If the Gulf shrimp fishery exceeds that effort cap, the Amendment includes provisions that lead

[11] 16 U.S.C. 1801(b)(7)
[12] 16 U.S.C. 1802(10)
[13] Gulf of Mexico Fishery Management Council and NOAA: Final Report on 5-Year Review of Essential Fish Habitat Requirements. (December, 2016). https://gulfcouncil.org/wp-content/uploads/EFH-5-Year-Revew-plus-App-A-and-B_Final_12-2016.pdf

to additional regulatory restrictions on when, where, and how the fishery may operate. These restrictions can include a fishery closure.

Therefore, to the extent the biological status of the red snapper stock including its EFH is adversely impacted by any offshore aquaculture development or operational activities, it could undermine the federal rebuilding plan and lead to a reduction in the cap on shrimp fishing effort in those areas and/or additional regulatory restrictions on when, where and how the fishery may operate. This would have adverse socioeconomic impacts on the shrimp industry including the many small, family-owned fishing and shoreside infrastructure businesses and coastal communities that depend on it.

With respect to EFH established for corals, the shrimp industry is subject to fishing prohibitions in designated EFH areas including coral Habitat Areas of Particular Concern (HACP) pursuant to the Coral Fishery Management Plan developed by the Gulf Council and approved by NOAA.[14]

Once again, to the extent that any offshore aquaculture development or operational activities damage or otherwise adversely impact coral EFH, the cumulative impacts may lead to additional areas of the Gulf where shrimp fishing is prohibited. This too would have adverse social and economic impacts on the shrimp industry including the many small, family-owned fishing and shoreside infrastructure businesses and coastal communities that depend on it.

Endangered Species Act

The PEIS must analyze any direct, indirect, and cumulative impacts of offshore aquaculture development in the Gulf on endangered species pursuant to the Endangered Species Act (ESA).[15]

As the Action Agency under this action, NOAA Fisheries must follow a process that respects and is in full compliance with ESA mandates to enter into consultations with NOAA Office of Protected Resources (OPR) and develop measures to "*insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species.*" [16]

The Gulf shrimp fishery is held strictly accountable for any effect that this federally authorized fishery may have on species listed pursuant to the ESA, as well as for any adverse effects the fishery may have on the critical habitats designated for certain species that are found in the Gulf under the Act. [17] Those listed species that occur in the Gulf include two species of whales, eight species of coral, five species of sea turtles, Gulf sturgeon, smalltooth sawfish, Nassau grouper, oceanic whitetip shark, and giant manta ray.[18] Those designated critical habitats found in the Gulf include that for loggerhead sea turtle and Gulf sturgeon.[19]

To the extent that the direct or cumulative impacts on such listed species or designated critical

[14] https://gulfcouncil.org/implemented-plans/coral/
[15] 16 U.S.C. §1531 et seq.
[16] Id. at §16 U.S.C. 1536
[17] NOAA/NMFS/SERO (2021), Reinitiation of Endangered Species Act (ESA) Section 7 Consultation on the Implementation of the Sea Turtle Conservation Regulations under the ESA and the Authorization of the Southeast U.S. Shrimp Fisheries in Federal Waters under the Magnuson-Stevens Fishery Management and Conservation Act (MSFMCA) https://media.fisheries.noaa.gov/2021-04/2021%20SHRIMP%20OPINION.pdf?null
[18] Id. at Table 1. p. 15.
[19] Id. at Table 2. P. 16.

habitats that derive from any action taken by NOAA's process to develop offshore aquaculture in the Gulf are adverse and reduce the health (status) of those species or habitats, the shrimp industry may face the imposition of additional regulatory restrictions on where, when, how and even if it is authorized to operate in the Gulf pursuant to this Act.

Those adverse impacts may include what are defined as "takes" under the ESA caused directly by offshore aquaculture development and/or operational activities.

The Gulf shrimp industry is subject to an incidental take limit and associated regulatory "Reasonable and Prudent Measures" (RPMs) and "terms and conditions" with respect to its interactions with those five species of sea turtles listed under the ESA.[20]

Currently, that level of incidental takes for each of those species (as well as Gulf sturgeon, giant manta ray, and smalltooth sawfish) has been determined by NOAA to be "not likely to jeopardize the continued existence" of the listed species, provided that such taking is in compliance with the RPMs and the terms and conditions.[21]

However, if the population status of those five species of sea turtles (and those other listed species) is adversely impacted by offshore aquaculture development, then the Gulf shrimp fishery may be subject to a finding that the cumulative effects of the fishery's incidental takes of sea turtles does, in fact, jeopardize the continued existence of any or all of those five listed species of sea turtles.

In that scenario of a 'jeopardy finding', the Gulf shrimp fishery could lose its ESA authorization to operate in the Gulf altogether, or be subject to additional regulatory restrictions on when, where and how it can operate. In either case, the social and economic impacts on the shrimp industry including the many small, family-owned fishing and shoreside infrastructure businesses and coastal communities could be severe.

Again, NOAA Fisheries must follow a process that respects and is in full compliance with Endangered Species Act (ESA) for any action is takes or proposes to take that may affect listed species or designated critical habitat, and its consultations with NOAA OPR in this respect must occur as early in the process as possible so that that quality and integrity of those consultations and their results are maximized and the adverse impacts on those species and the shrimp industry are minimized.

Marine Mammal Protection Act

The PEIS must analyze any direct, indirect, and cumulative impacts of offshore aquaculture development in the Gulf on marine mammal populations pursuant to the Marine Mammal Protection Act. [22]

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[20] NOAA/NMFS/SERO at §8, p. 223.
[21] NOAA/NMFS/SERO at §8.2, p. 226.
[22] 16 U.S.C. 1361 et seq.

6. Potential adverse, beneficial, neutral, or cumulative impacts to the social, economic, and cultural environment, including commercial and recreational fishing industries and coastal communities;

We call attention to the multiple references in these comments to the potential adverse direct, indirect, and cumulative socioeconomic impacts of this action on the Gulf shrimp industry, including both the fishing and shoreside sectors, and the need for the PEIS to fully analyze those impacts consistent with NEPA regulations and other applicable law.

These comments also recommend that the most effective way to avoid and minimize those adverse impacts on the Gulf shrimp industry associated specifically with the siting of offshore aquaculture operations is to limit such siting to areas deeper than 90 m and/or apply the latest generation of spatial suitability modeling developed by NOAA's NCCOS with respect to offshore wind energy development in the Gulf.

Further, SSA notes that as a general matter, NOAA's data and analyses of the socioeconomics of the Gulf shrimp industry are insufficient and dated notwithstanding the fact that Gulf shrimp industry is the most valuable in the Gulf region and is among the most valuable in the Nation. Many thousands of fishermen and shoreside jobs are part of this industry that contributes substantially to the economies and culture of dozens of coastal communities. Yet we have a very incomplete picture of this reality.

Gulf Coast States do collect disparate sets of economic data, and perhaps that could be synthesized for purposes of a Gulf-wide analysis, and there are sources of relevant economic data scattered within various fishery management documents generated by the Gulf Council and NOAA, but there does not appear to be any central repository for comprehensive, up-to-date economic data on the Gulf shrimp industry.

Anticipating that such data will be essential to the PEIS analysis of socio-economic impacts of offshore aquaculture development in the Gulf, SSA requests that NOAA invest the necessary resources to develop and implement, perhaps in consultation with the Gulf states and/or the Gulf States Marine Fisheries Commission, a specific plan for collecting and analyzing such data through this PEIS and all other federal actions that impact this industry including the full scope of upstream and downstream shoreside businesses that are at the core of the Gulf shrimp industry and the communities that depend on them. In any case, all data analyzed in this PEIS must meet the MSA National Standard 2 of "best scientific information available".[23]

7. Promotion of environmental justice, diversity, equity, and inclusion when considering alternative AOA locations and other aspects of offshore aquaculture development in Federal waters of the Gulf of Mexico;

Central to this PEIS analysis and consideration of environmental justice for the Gulf shrimp industry must be, consistent with NEPA regulations, the analysis and consideration of cumulative impacts of other federal actions when added to the impacts of aquaculture development. As previously mentioned in these comments, the analysis of those cumulative impacts must include the impacts, including the disproportionality (inequity) of those impacts, of past and current oil and gas development as well as future offshore wind energy development on the Gulf shrimp industry.

[23] 16 U.S.C. 1851(a)(2)

With those cumulative impacts on the Gulf shrimp industry of U.S. offshore energy development in mind, NOAA must consider the following.

On January 27, 2021, President Biden issued Executive Order 14008 (EO 14008) on "*Tackling the Climate Crisis at Home and Abroad*".[24]

Section 201 of EO 14008 includes the following Policy statement:

> "*We must deliver* ***environmental justice in communities all across America***." (emphasis added)

Section 203 of EO 14008establishes an inter-agency National Climate Task Force that:

> *"shall facilitate planning and implementation of key Federal actions to reduce climate pollution; increase resilience to the impacts of climate change; protect public health;* ***conserve our lands, waters, oceans, and biodiversity; deliver environmental justice;*** *and spur well-paying union jobs and economic growth*." (emphasis added)

This Task Force includes the Secretary of Commerce (NOAA) and BOEM.

Consistent with these polices, in his November 24, 2021, correspondence with SSA, NOAA Administrator Dr. Richard Spinrad explained that Executive Order 14008:

> "*included the Administration's goal of deploying 30 gigawatts of offshore wind energy by 2030 in a way that allows for* ***protection of living marine resources, habitats, fisheries, and fishing communities,*** *including through meaningful stakeholder engagement*".[25] (emphasis added)

It must be clear that the President's policies "*to deliver environmental justice in communities all across America*" applies to fishing communities including the Gulf shrimp industry.

More recently, on December 8, 2021, President Biden issued Executive Order 14057: "*Executive Order on Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*".[26] As part of the President's Policy set forth in section 101 of this EO 14057, he states:

> "*we have a once-in-a-generation economic opportunity to create and sustain jobs, including well-paying union jobs; support a just transition to a more sustainable economy for American workers;* ***strengthen America's communities; protect public health; and advance environmental justice.***" (emphasis added)

And in section 511 of this EO 14057 he states:

> *"The heads of agencies shall implement this order consistent with my Administration's*

[24] https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/

[2] https://www.shrimpalliance.com/ssa-encouraged-by-noaa-boem-collaboration-on-offshore-wind/

[26] https://www.whitehouse.gov/briefing-room/presidential-actions/2021/12/08/executive-order-on-catalyzing-clean-energy-industries-and-jobs-through-federal-sustainability/

> *policies to spur growth of domestic industry and well-paying union jobs, address the climate crisis, and* ***deliver equity and environmental justice****."* (emphasis added)

Both of these EO's are replete with statements making clear that one of the primary objectives of the President's equity and environmental justice policy is to prevent disadvantaging communities including especially those communities that have been previously disadvantaged by less sustainable federal energy and environmental policies and programs.

For one example, in Section 219 of his aforementioned Executive Order 14008: "*Tackling the Climate Crisis at Home and Abroad*", the President states the following Policy:

> "*Agencies shall make achieving environmental justice part of their missions by developing programs, policies, and activities to* ***address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities****, as well as the accompanying economic challenges of such impacts.*" (emphasis added)

No other community has been more disadvantaged (inequitably impacted) along the Gulf coast by the cumulative impacts of decades of federal environmental and energy policies and programs to advance oil and gas production than the Gulf coast shrimp community. And now, the Gulf shrimp industry faces a range of potential impacts from the development of offshore wind energy and, with this action, offshore aquaculture development.

While all Americans and energy industry companies have enjoyed the benefits of this past energy production, this disproportionate burden has included, among many other things, the fishery's massive displacement from productive fishing grounds and damage from countless discharges of oil- both small and catastrophic- into the delicate coastal and benthic ecosystems essential to shrimp life history and annual production.

It must be clear that a core objective of this Administration's climate change policy is to advance environmental justice and equity for affected communities including the Gulf shrimp fishing industry community.

Therefore, it should be equally clear that, in respecting the express intent of the President's EOs and other policies of this Administration, NOAA must take exceptional steps not to repeat this history of placing a disproportionate (inequitable) burden on the Gulf shrimp industry – this time in pursuing the Nation's aquaculture development objectives. This means that NOAA must take exceptional steps to avoid and minimize any disproportional (inequitable) impacts to the Gulf shrimp community from offshore aquaculture development. Consistent with the comments above, a necessary first step toward achieving that objective is for NOAA to exclude areas less than 90 m in depth, and/or those areas of moderate-to-high shrimp fishing effort, from the siting of any AOAs in the Gulf.

8. Underserved communities and underrepresented groups, and/or regions and communities that could either benefit from or be adversely impacted by the siting of AOAs in the Gulf of Mexico;

Please see comments on Item 8 above with specific respect to Gulf shrimp fishing communities that could be adversely impacted by the siting of AOAs in the Gulf of Mexico

9. The impact of climate change or changing environmental conditions (e.g., storm intensity, sea level rise, water quality) on siting and other aspects of aquaculture;

The PEIS must analyze and consider the potential failure of the engineering, operation and maintenance of offshore aquaculture facilities and infrastructure to withstand high energy weather events that occur with increasing frequency and intensity in the Gulf due to climate change, and the resulting impacts of the escapement of the cultured species into the wild, and/or associated debris.

In that context, SSA requests that NOAA require the offshore aquaculture industry to demonstrate in advance of construction or installation that any aquaculture facility and associated gear is proven to be capable of withstanding the wind and wave forces associated with increasingly frequent hurricanes including category 5 hurricanes that have and will continue to impact virtually the entire Gulf and its coastline where associated hatcheries may be located. See Appendix 3 for a Map of Atlantic Category Five Hurricanes.

10. Current or planned activities in or near the areas highlighted in this notice and their possible impacts on aquaculture development or the impact of aquaculture developments on those activities;

Please see comments regarding the cumulative impacts of offshore aquaculture development in the Gulf on the Gulf shrimp industry when added to the impacts of offshore oil and gas development and future impacts of offshore wind energy development.

11. Other topics relevant to the Proposed Action and its impacts on the human environment.

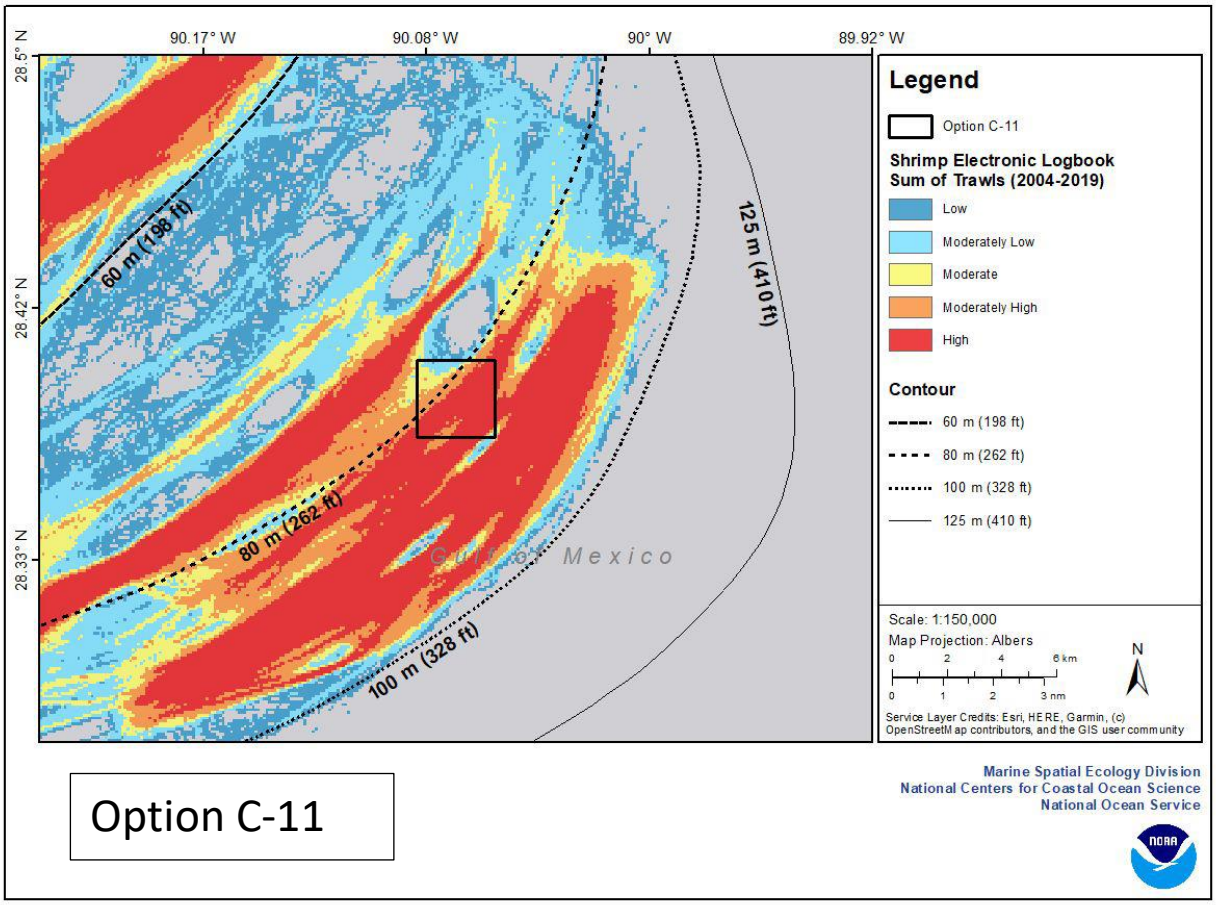
SSA will likely provide further comments on such "other topics" in a later stage in this PEIS development process.

SSA is grateful for NOAA's consideration of our views. Please let us know if you have any questions.

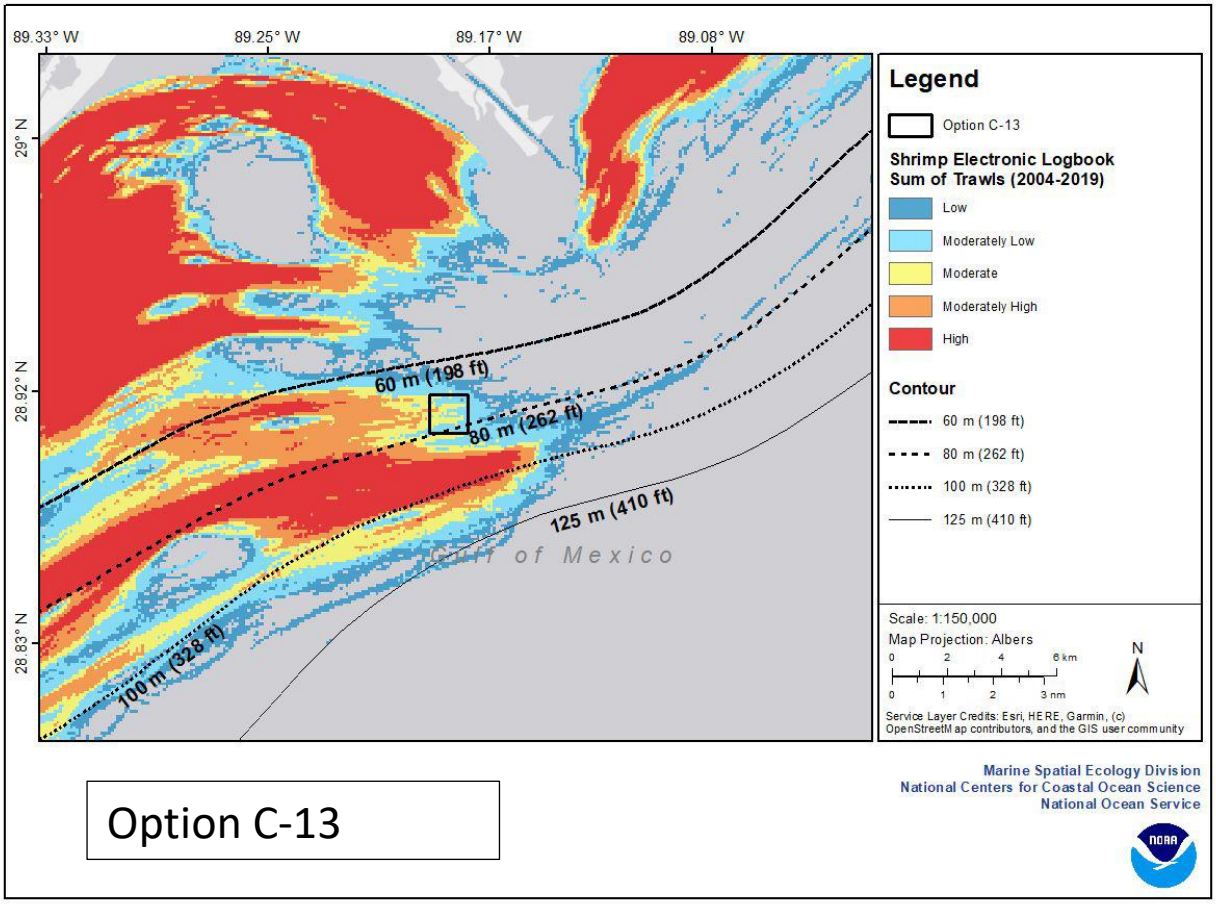
Sincerely,

John Williams,
Executive Director

Appendix 1: AOA Atlas Area Option C-11

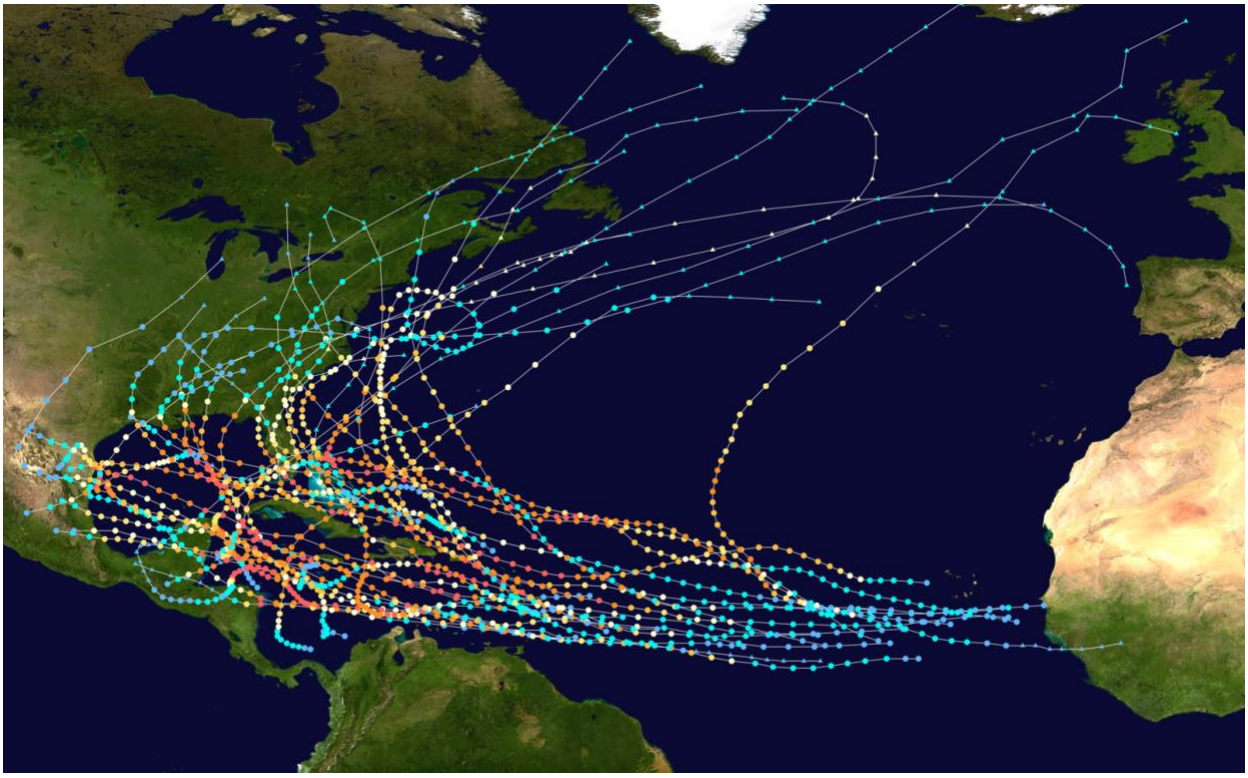


Appendix 2: AOA Atlas Area Option C-13



Appendix 3: Map of Atlantic Category Five Hurricanes

https://commons.wikimedia.org/wiki/File:Map_of_Atlantic_Category_Five_hurricanes.png



PUBLIC SUBMISSION

As of: 8/18/22, 1:43 PM
Received: July 21, 2022
Status: Posted
Posted: July 22, 2022
Tracking No. l5v-m08r-5ze0
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0065
Comment from Abrusley, Ashley

Submitter Information

Name: Ashley Abrusley
Address:
New Orleans, LA, 70122
Email: ashleyabrusley@gmail.com
Phone: 3185415755

General Comment

The gulf has been through enough! We do not need these farms polluting it

PUBLIC SUBMISSION

As of: 8/18/22, 1:53 PM
Received: July 21, 2022
Status: Posted
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Tracking No. l5v-ojdw-tuo6
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0066
Comment from Clement , Danielle

Submitter Information

Name: Danielle Clement
Email: dclement42@gmail.com

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0067
Comment from Tracy, Nancy

Submitter Information

Name: Nancy Tracy
Address:
Sanibel, FL, 33957
Email: nantracy5309@gmail.com

General Comment

I do not think Fish Farms will help any of us. They pollute and will contribute to our already susceptible waters. We already have plenty of sources to obtain seafood. Let’s stop this terrible idea.

PUBLIC SUBMISSION

As of: 8/18/22, 1:58 PM
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Posted: July 25, 2022
Tracking No. l5w-wsxw-ry14
Comments Due: August 01, 2022
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0068
Comment from AFFTA Fisheries Fund

Submitter Information

Email: whitney.tilt@affta.org
Organization: AFFTA Fisheries Fund

General Comment

It is the position of AFFTA Fisheries Fund that no offshore finfish aquaculture should be permitted in U.S. Federal Waters, in the Gulf of Mexico, Southern California Bight or elsewhere, until such facilities demonstrate the ability to sufficiently protect the surrounding marine environment, including valuable commercial and recreational fisheries. Given the demonstrated negative impacts resulting from near-shore finfish aquaculture, it is incumbent on the proponents of offshore finfish aquaculture to demonstrate that the siting and operation of offshore finfish aquaculture facilities does not pose a threat to marine fisheries and their habitats.

Some specific areas of concern include:

Regulatory Uncertainty. As the EO makes clear, there is the need to create a siting, permitting, and regulatory framework that leads to sound and accountable decisions. At present, development of commercial aquaculture facilities in U.S. federal waters is hamstrung by an unclear permitting and regulatory process that includes a clutter of federal agencies including the Environmental Protection Agency, National Oceanic and Atmospheric Administration, Army Corps of Engineers, U.S. Navy, U.S. Coast Guard, and the U.S. Fish and Wildlife Service — all sharing some form of overlapping, and even conflicting, jurisdictions. A clear, transparent, and accountable system of siting, permitting, regulating, and monitoring must be put into place prior to any approval of offshore finfish aquaculture facilities.

Waste. Fish farms create a high amount of waste, adding nutrients and an array of pharmaceuticals and other prophylactics to the surrounding waters. These additional nutrients increase biological oxygen demand, contribute to algae blooms, and other environmental degradation. Placing fish cages in offshore

areas with currents sufficient to “wash away and dilute” the pollution may address the immediate needs of the cage aquaculture, but it does not remove the nutrients and waste from the system. To suggest such waste does no damage is dangerously naïve. It might be forgiven in the 1800s but not in the 21st century.

Sustainability of fish feed sources. In general, penned fish are fed diets containing fish meal and fish oil sourced from wild fisheries. The majority of fish meal and oil comes from wild-caught forage fish such as menhaden, anchovies, and capelin. The remainder of the diet comprises processed fish remains generated by wild and farmed fish alike. This heavy reliance on wild fisheries to feed finfish aquaculture is a major concern as the abundance and sustainability of countless commercially- and recreationally-important finfish species are directly dependent on healthy forage fish stocks. This poses an enormous challenge for proponents to demonstrate the sustainability of offshore finfish aquaculture and, at best, is a limiting factor in the growth of such aquaculture.

Escapes and Disease Transmission. The high density of fish in the cages make these areas prone to disease and parasites. Their control calls for the continual use of pharmaceuticals and other prophylactics. In addition, escape of caged fish is common and can contribute to spreading disease, creating inter-species competition for food, and transfer of antibiotic resistance from farmed to wild fish. These issues have been documented in other ocean aquaculture operations and it must be assumed that these concerns remain as the practice moves further offshore. The short- and long-term impacts of these factors to valuable commercial and recreational marine species is unknown and must be addressed.

Other Impacts and Hazards. The presence of large fish cages and fish feed in offshore waters will attract fish which must be presumed to have an effect on fish migrations and abundance by attracting predators (e.g., sharks and seals) and by acting as fish attraction devices (FADs) that aggregate wild fish stocks that in turn can be easily targeted, resulting in increased harvest. Beyond the obvious hazards to navigation posed by the physical facilities, hurricanes, typhoons, tsunamis, and other severe weather can likely damage or destroy facilities with resulting loss of fish and flotsam posing its own concerns.

Logistics. Operating offshore aquaculture facilities presents a set of technical difficulties and uncertainties not encountered in near-shore waters and onshore operations. Rougher waters, stronger winds and currents, longer supply chains and maintenance cycles, and ship traffic to name a few. To date, only a few experimental aquaculture research facilities have operated in the U.S. federal waters and all commercial aquaculture facilities have been sited in nearshore waters under state or territorial jurisdiction.

PUBLIC SUBMISSION

As of: 8/18/22, 3:54 PM
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Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0069
Comment from MCCAFFITY, CHRIS

Submitter Information

Name: CHRIS MCCAFFITY
Address:
morehead city, NC, 28557
Email: naturalart7@hotmail.com
Phone: 2522699817

General Comment

Please limit public water aquaculture to stocking native seafood that can naturally reproduce. Please do not allow genetically sterilized or otherwise modified species in public waters. Please do not restrict the public's freedom to access our public waters with corporate cages. Regional hatcheries stocking larval-stage fry can be the perfect blend of public water aquaculture and wild-caught seafood that lives free and self-sufficient until harvested by independent fishermen. Please help fish and fishermen remain wild and free by keeping them out of corporate cages. I am happy to provide more detail. Thank you for your thoughtful consideration of these public comments.

PUBLIC SUBMISSION

As of: 8/18/22, 4:05 PM
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Tracking No. l5y-3jyh-95bi
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0070
Comment from Hansen , Carla

Submitter Information

Name: Carla Hansen
Address:
Sanibel Island, FL,
Email: clhansen312@gmail.com

General Comment

Do not plunder an overly stressed ecosystem for this endeavor. Let them set up farms off shore away from everything SWFL has and continues to do to keep a tenuous hold on the water ecosystem. This is not the location to apply more stress.

Uses your science to save the area from fish kills, red tide and other harmful bacteria.

PUBLIC SUBMISSION

As of: 8/18/22, 4:07 PM
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Posted: July 25, 2022
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Comments Due: August 01, 2022
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0071
Comment from Ellis, Keith

Submitter Information

Name: Keith Ellis
Address:
FL, 34102
Phone: US +12398216307

General Comment

This is an accident waiting to happen. Shame on all of you.

PUBLIC SUBMISSION

As of: 8/18/22, 4:10 PM
Received: July 25, 2022
Status: Posted
Posted: July 26, 2022
Tracking No. l61-6cxa-wk9g
Comments Due: August 01, 2022
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0072
Comment from Siesta Key Chamber of Commerce

Submitter Information

Email: ann@siestakeychamber.com
Organization: Siesta Key Chamber of Commerce

General Comment

Andrew Richard
Regional Aquaculture Coordinator
NMFS, Southwest Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

Re: No Action for E-3

Dear Andrew Richard,

The Siesta Key Chamber of Commerce represents over 400 locally owned business members located on Siesta Key and in Sarasota. Siesta Beach has received numerous awards and is recognized as one the #1 beaches in the world. It is our community's greatest tourism asset which our businesses depend on to thrive.

We cannot allow our water quality and marine habitats be jeopardized by the development of fish farms and the threat of increased red tide. We do not believe the Sarasota area E-3 is suitable for an Aquatic Opportunity Area (AOA) because it is vulnerable to hurricanes and in an area where red tide blooms often originate. We request NO ACTION on the AOA's in the Gulf of Mexico.

The proposed Valella Epsilon Fish Farm would not build opportunity and economy, but, instead, endanger it. Businesses would lose millions in tourism revenue from red tide, which could be exacerbated by fish

farm pollution.

Your attention to this important matter is greatly appreciated.

Respectfully,
Michael Gatz, Board Chairman
Siesta Key Chamber of Commerce
5114 Ocean Blvd. Sarasota, FL 34242
941-349-3800
mikegatz@verizon.net
July 25, 2022

PUBLIC SUBMISSION

As of: 8/18/22, 4:13 PM
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Tracking No. l61-f211-j8z1
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Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0073
Comment from Puskar, Janet

Submitter Information

Name: Janet Puskar
Address:
PENSACOLA, FL, 32507-7228
Email: janetkpuskar@gmail.com
Phone: 8502078296

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

PUBLIC SUBMISSION

As of: 8/18/22, 4:15 PM
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Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0074
Comment from Desenberg, Diane

Submitter Information

Name: Diane Desenberg
Address:
Sarasota, FL,
Email: travelerd@yahoo.com

General Comment

Please adopt Alternative 1, the No Action Alternative, in which no Aquaculture Opportunity Areas (AOAs) would be identified in Federal waters offshore of the Gulf of Mexico.

Fish farms in the Gulf of Mexico will create waste and pollution. This includes untreated fish waste and various chemicals. Fish pens are packed with fish that can become a breeding ground for parasites like sea lice, and other fatal diseases. As a result, industrial farms use antibiotics and pesticides, which pollute the ocean further. They release nitrogen and other pollutants that will exacerbate the red tides already wreaking havoc on the Gulf coast along Southwest Florida. Every little bit contributes. With massive red tide blooms occuring regularly, we don't need any more contibutions to the problem.

And what do these farmed fish eat? The proposed fish offshore from Sarasota proposed fish that are carnivores. Which is to say they eat forage fish - much coming from wild prey fish. Thus, fish farms will lead directly to the overfishing of such forage fish. Such forage fish are critically important to birds, dolphins, sharks and other wild fish.

And what happens when there is a hurricane? There is no reason to think fish pens are hurricane proof. It is problematic that farmed non-native fish would be allowed to escape into the wider Gulf after a storm.

Adopt Alternative 1, the No Action Alternative.

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0075
Comment from Belt, Annie

Submitter Information

Name: Annie Belt
Address:
San Jose, CA, 95126
Email: annieb58@hotmail.com
Phone: 4082886322

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore

fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

PUBLIC SUBMISSION

As of: 8/18/22, 5:19 PM
Received: July 25, 2022
Status: Posted
Posted: July 26, 2022
Tracking No. l61-hark-jdjo
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0076
Comment from Wornall, Donna

Submitter Information

Name: Donna Wornall
Address:
Pensacola, FL, 32507
Email: Siskin40361@gmail.com

General Comment

I am a registered voter in Escambia County, and I feel strongly that the proposed fish farm south of us will impact our quality of life. Our lives and property values will suffer for the profits of a private corporation. In addition, I believe the ecosystem of the gulf will suffer irreparable damage. We are not reinventing the wheel here, we only need to look at the experiences of other countries who now regret their decision to allow this type of aquaculture in their waters.

Please contact me if you need further information on my reasons for submitting this comment.

Sincerely, Donna Lynne Hutchings Wornall

PUBLIC SUBMISSION

As of: 8/18/22, 5:21 PM
Received: July 25, 2022
Status: Posted
Posted: July 26, 2022
Tracking No. l61-jdha-rp7j
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0077
Comment from Gale, Maradel

Submitter Information

Name: Maradel Gale
Address:
Bainbridge Island, WA, 98110
Email: mkgale@uoregon.edu
Phone: 2068425133

General Comment

Don't let this happen to another part of our national coastline!!! I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

I know how damaging these confined animal feeding operations are to the marine environment since I have lived with net pen aquaculture for Atlantic salmon right off of my island's shoreline. The fecal material that covers the substrate under the pens is disgusting. The problems with sea lice are enormous and take a toll of the small wild salmon that must swim by these pest-ridden operations. And who in the heck thinks it is a good idea to eat fish that have been treated with pesticides and other chemicals just to keep them alive?? There is nothing redeeming about open water net pen operations such as NOAA seems

to be supporting illegally through this aquaculture oppertunity area designation.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

This is not a solution to our world’s problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

PUBLIC SUBMISSION

As of: 8/18/22, 5:25 PM
Received: July 26, 2022
Status: Posted
Posted: July 27, 2022
Tracking No. l62-qzqb-hcvr
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0078
Comment from Christensen, Knute

Submitter Information

Name: Knute Christensen
Address:
Dallas, TX, 75252
Email: knute.c@sbcglobal.net
Phone: 9728960475

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

PUBLIC SUBMISSION

As of: 8/18/22, 5:29 PM
Received: July 27, 2022
Status: Posted
Posted: July 27, 2022
Tracking No. l63-p1hb-2uig
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0079
Comment from Hazlett, Jenel

Submitter Information

Name: Jenel Hazlett
Address:
New Orleans, LA, 70118
Email: Jenelhazlett@gmail.com

General Comment

The Gulf of Mexico is a small area when put in contrast to the world's oceans.
It has already been worked over and polluted by oil & gas.
The long term impacts of these spills still unknown.

We know what hurricanes can do to oil & gas infrastructure.
We also know that climate change will only make these storms stronger.

Fish farms are the equivalent of nasty feedlots for fish.
We understand that feedlots aren't optimal agriculture.
These fish feedlots have the potential to generate disease not seen in the wild.

Hurricanes have the potential to create havoc on fish feedlot farms too.

If you want to do something to help the fishing industry tax seafood imports.

Do not allow these nasty fish feedlots in the already overtaxed Gulf of Mexico.

PUBLIC SUBMISSION

As of: 8/18/22, 5:33 PM
Received: July 27, 2022
Status: Posted
Posted: July 27, 2022
Tracking No. l63-q42s-0uoy
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0080
Comment from Fishadelphia

Submitter Information

Email: feini@fishadelphia.com
Organization: Fishadelphia

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

PUBLIC SUBMISSION

As of: 8/18/22, 5:36 PM
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Posted: July 27, 2022
Tracking No. l63-v8c6-laz1
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0081
Comment from Badon, Marta

Submitter Information

Name: Marta Badon
Address:
Slidell, LA, 70460
Email: mab6750@yahoo.com
Phone: 15049136344

General Comment

No more commercial ventures in the Gulf!
The Gulf of Mexico is a small area when put in contrast to the world's oceans.
It has already been worked over and polluted by oil & gas.
The long term impacts of these spills still unknown.
We know what hurricanes can do to oil & gas infrastructure.
We also know that climate change will only make these storms stronger.
Fish farms are the equivalent of nasty feedlots for fish.
We understand that feedlots aren't optimal agriculture.
These fish feedlots have the potential to generate disease not seen in the wild.
Hurricanes have the potential to create havoc on fish feedlot farms too.
If you want to do something to help the fishing industry tax seafood imports.
Do not allow these nasty fish feedlots in the already overtaxed Gulf of Mexico.

PUBLIC SUBMISSION

As of: 8/18/22, 5:39 PM
Received: July 27, 2022
Status: Posted
Posted: July 28, 2022
Tracking No. l63-qf9q-jb09
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0082
Comment from Taproot Earth

Submitter Information

Email: kdix@taproot.earth
Organization: Taproot Earth

General Comment

Please find attached comment from Taproot Earth.

Lauren Bennett - NOAA Affiliate <lauren.bennett@noaa.gov>

Fwd: Missing Attachment! - Aquaculture Opportunity Area NOI to Prepare PEIS Comment

1 message

Andrew Richard - NOAA Federal <andrew.richard@noaa.gov> Thu, Aug 25, 2022 at 4:08 PM
To: Lauren Bennett - NOAA Federal <lauren.bennett@noaa.gov>

---------- Forwarded message ---------
From: **Andrew Richard - NOAA Federal** <andrew.richard@noaa.gov>
Date: Thu, Jul 28, 2022 at 12:32 PM
Subject: Re: Missing Attachment! - Aquaculture Opportunity Area NOI to Prepare PEIS Comment
To: Kendall Dix <kdix@taproot.earth>

We definitely appreciate the feedback! I'll make sure I also pass that along to our colleagues at the National Centers for Coastal Ocean science who were integral in developing that tool.

Thanks,
Andrew

On Thu, Jul 28, 2022 at 11:52 AM Kendall Dix <kdix@taproot.earth> wrote:
> Thanks, Andrew. Please know that your siting tool is very much appreciated. It seems to have helped a lot with assuring fishing communities that offshore wind and the fishing industry can coexist.
>
> On Thu, Jul 28, 2022 at 11:47 AM Andrew Richard - NOAA Federal <andrew.richard@noaa.gov> wrote:
> > Yes, I can see that it went through and I uploaded it to the Regulations.gov page so it should be visible later on this afternoon.
> > Thank you and your organization for your interest and for taking the time to provide comments.
> >
> > Please know that one of my major roles as the NOAA Fisheries' Southeast Regional Aquaculture Coordinator is to serve as a primary point of contact for the agency and aquaculture activities in the region. If you happen to have any questions related to identifying Aquaculture Opportunity Areas, or any other aquaculture activities or projects please feel free to give me a call or send me an email. I'm happy to assist in any way I can.
> >
> > Respectfully,
> > Andrew
> >
> > On Thu, Jul 28, 2022 at 10:49 AM Kendall Dix <kdix@taproot.earth> wrote:
> > > Ok, just submitted again. Hopefully worked this time.
> > >
> > > On Thu, Jul 28, 2022 at 10:46 AM Andrew Richard - NOAA Federal <andrew.richard@noaa.gov> wrote:
> > > > No problem at all. It's probably easiest to just submit another comment with the attachment. There's no issue with submitting multiple comments.
> > > >
> > > > Thanks,
> > > > Andrew
> > > >
> > > > On Thu, Jul 28, 2022 at 9:27 AM Kendall Dix <kdix@taproot.earth> wrote:
> > > > > Thanks, Andrew. Is there a way for me to edit my comment or should I submit another one?
> > > > >
> > > > > On Thu, Jul 28, 2022 at 9:23 AM Andrew Richard - NOAA Federal <andrew.richard@noaa.gov> wrote:
> > > > > > Good morning,
> > > > > >
> > > > > > I just wanted to reach out and make you aware that the public comment you provided for the Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings did not contain an

attachment as your comment indicated. I wanted to flag this for you prior to the conclusion of the public comment period on August 1, 2022 to ensure you and your organization had an opportunity to provide those comments.

Please let me know if you have any questions or any challenges attaching that document to the Regulations.gov website. I'd be happy to assist!

Respectfully,
Andrew

Andrew Richard
Regional Aquaculture Coordinator, Southeast Regional Office
NOAA Fisheries | U.S. Department of Commerce
Office: (727) 551-5709
Cell: (727) 212-1350
www.fisheries.noaa.gov

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Regional Aquaculture Coordinator, Southeast Regional Office
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Andrew Richard
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Cell: (727) 212-1350
www.fisheries.noaa.gov

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Kendall Dix
National Policy Director
Taproot Earth
he/him

(434) 442-0179
kdix@taproot.earth
taproot.earth

Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!

--

Andrew Richard
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PUBLIC SUBMISSION

As of: 8/18/22, 5:41 PM
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Posted: July 28, 2022
Tracking No. l63-xggy-mxzl
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0083
Comment from Burton, Carol

Submitter Information

Name: Carol Burton
Address:
Fort Walton Beach, 32547
Email: Cay.Burton@gmail.com
Phone: 8507972294

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore

fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

PUBLIC SUBMISSION

As of: 8/18/22, 5:44 PM
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Posted: July 28, 2022
Tracking No. l64-0bpv-qson
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0084
Comment from Holland, Hannah

Submitter Information

Name: Hannah Holland
Address:
Orlando, FL, 32803
Email: hannah.f.holland@gmail.com

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work

along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by “high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment.” Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

PUBLIC SUBMISSION

As of: 8/18/22, 5:46 PM
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Posted: July 28, 2022
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Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0085
Comment from Hoffman, Donna

Submitter Information

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General Comment

NOAA Regulators: I grew up fishing recreationally on the Gulf Coast with my family. We ate the wild-caught fish of size. I know the problem of red tides. I know the abundance that the Gulf of Mexico can offer when it's free of pollutants like the chemicals that would be used in these fish farms. I also eat organic food to protect my body from such chemicals. I want the best health for everyone living in the coastal communities and shopping and eating food all over the nation/world that is from the Gulf of Mexico. I oppose factory farming.

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are “water grabs". The federal government and corporate partners seize the ocean to establish an industry that would harm coastal communities and the livelihoods of people who live and work along the water.

These floating factory farms are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by “high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment.” Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world’s problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

Attachments

Planet EArth

Port A Rainbow

PUBLIC SUBMISSION

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0086
Comment from B, G

Submitter Information

Name: G B
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General Comment

Hi,
These aquaculture opportunities should only be available to individuals or small businesses, and should only allow aquaculture which will be beneficial to the surrounding environment e.g. no introduction of antibiotics, pesticides or other pollutants.

Nutrients should be required to be cycled, with farms planting the required amount of seagrasses, mussels/clams, encouraging phytoplankton growth to feed bait speciea etc. and encourage other natural nutrient cycling processes with the effluent.

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Document: NOAA-NMFS-2022-0044-0087
Comment from Don't Cage our Oceans

Submitter Information

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Organization: Don't Cage our Oceans

General Comment

Please find the attached comments on behalf of the coalition members of Don't Cage our Oceans.

Attachments

Gulf of Mexico Aquaculture Opportunity Areas - DCO2 comments

July 27, 2022

Mr. Andrew J. Strelcheck
Regional Administrator
NMFS Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Submitted online at Docket No. NOAA-NMFS-2022-0044 at https://regulations.gov

RE: Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Dear Mr. Strelcheck:

Don't Cage Our Oceans is a coalition of national, regional, and local organizations and businesses working to stop industrial-scale offshore finfish farming while uplifting values-based sea-food systems led by local communities. More responsible forms of aquaculture are community-driven, responsibly sited and appropriately scaled, and use more appropriate species and methods. We respectfully submit these comments in response to NOAA's "Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings" (Agency/Docket Number RTID: 0648-XB900 RTID.) Please note that **we also endorse the comments submitted by the Center for Food Safety. We support the No Action Alternative,** in which no AOAs would be identified in Federal waters offshore of the Gulf of Mexico.

There are several reasons why the most prudent option is for NOAA (through the National Marine Fisheries Service, NMFS) to take no action in designating AOAs pursuant to former President Trump's Executive Order 13921. Chief among these is that NOAA lacks the legal authority to regulate aquaculture in federal waters. Furthermore, there are grave ecological consequences and inevitable financial harms to the regional economy in allowing offshore finfish farming in U.S. federal waters. A few of these concerns would be partially addressed by

unbiased application of relevant environmental law, but EO 13921 seeks to bypass those critical safeguards. Finally, NOAA's activist role in promoting industrial-scale offshore finfish aquaculture introduces unwarranted bias in the decision-making process, and flies in the face of scientific understanding on known harms, violating the precautionary principle.

Legality

NOAA repeatedly asserts authority in setting up and permitting an unprecedented nation-wide system of commercial offshore aquaculture facilities across all U.S. waters, even though Congress has never passed any legislation granting the agency authority to do so. Furthermore, the courts have affirmed this lack of authority to oversee aquaculture activities in federal waters: in 2020 the Fifth Circuit held that NOAA indeed lacks any statutory authority to regulate aquaculture.[1]

The 5th Circuit court case *Gulf Fishermens Ass'n* held that NOAA does not have authority to permit or regulate aquaculture in the U.S. federal waters of the Gulf of Mexico, as there is no Congressional authorization to do so under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). For years, NOAA had claimed that the MSA had provided authority under the contorted view that aquaculture falls under the statutory definition of "fishing" for purposes of the MSA, as fish are ultimately extracted from net pens, and that NOAA could thus create a fishery management plan (FMP) to regulate aquaculture. The 5th Circuit Court saw through this nonsensical justification, and ruled against it.

Across several administrations, the agency has acted as an activist and promoter of industrial aquaculture. Following the circuit court ruling, the Trump Administration issued an executive order to grant NOAA authority where Congress had not. While EO 13921 does nothing to bolster NOAA's authority, the agency might argue otherwise. Executive orders cannot confer authority on agencies because the president's powers are executive, not legislative, in nature.[2] Rather, the President's authority to act "must stem either from an act of Congress or from the Constitution itself."[3] As a result, EO 13921 cannot allow NOAA to establish a new offshore aquaculture industry in the absence of any statutory authority granted by Congress.

[1] *Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv.*, 968 F. 3d 454 (5th Cir. 2020).
[2] *Doe #1 v. Trump*, 957 F.3d 1050, 1062 (9th Cir. 2020) (citing *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 587 (1952) ("[T]he President's power to see that the laws are faithfully executed refutes the idea that he is to be a lawmaker.").
[3] *Id.* at 585.

More recently, NOAA has claimed authority to regulate aquaculture via its role in the interagency Subcommittee on Aquaculture,[4] established by the National Aquaculture Act of 1980.[5] This legislation identifies the U.S. Department of Agriculture as the lead agency on aquaculture, and barely assigns any responsibilities to the Department of Commerce (NOAA) at all, let alone authority to designate AOAs. The Act requires only consultation with NOAA for a biennial report on the status of aquaculture,[6] and several studies due 35 years ago.[7] None of these submissions required NOAA to determine locations suitable for industrial aquaculture in federal waters.

Absent *any* plain text in support, NOAA cannot establish its authority to designate AOAs in the Gulf of Mexico. In June 2022, the U.S. Supreme Court made plain that an agency must "point to 'clear congressional authorization' for the authority it claims."[8] NOAA's attempts here to promote and lead a brand-new, highly controversial industry without pointing to statutory text provides just such an "extraordinary case" in which the "history and the breadth of the authority that [the agency] has asserted," provides a "reason to hesitate before concluding that Congress" meant to confer such authority.[9]

Here, there is no ambiguity at all. Congress has never given NOAA the authority to regulate aquaculture in federal waters, and the courts have agreed with this interpretation. EO 13921 is an attempt to circumvent Congress, which has repeatedly demonstrated immense skepticism of offshore aquaculture, in order to lay the groundwork for large-scale fish farming in federal waters — an industrial activity that is severely lacking in public approval or buy-in when the details and risks of that development are made plain to the American public. NOAA should stop considering these Gulf of Mexico AOAs because of its clear lack of authority alone. However, even if NOAA's permitting and regulating of aquaculture were to be legal, there are a variety of other compelling reasons why this activity should not move forward.

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[4] NSTC Subcommittee on Aquaculture, A Strategic Plan to Enhance Regulatory Efficiency in Aquaculture. (Feb. 2022) https://www.ars.usda.gov/sca/Documents/2022%20NSTC%20Subcomittee%20on%20Aquaculture%20Regulatory%20Efficiency%20Plan_Final%20508%20compliant.pdf.

[5] 16 U.S.C. §§ 2801-2810.

[6] *Id*. § 2804(d).

[7] *Id*. § 2804(c)(1)(C), (D) (requiring the Department of Commerce to submit studies by December 31, 1987).

[8] *W. Virginia v. EPA*, No. 20-1530, 2022 WL 2347278, at *3 (U.S. June 30, 2022) (citing *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 324 (2014)).

[9] *W. Virginia*, 2022 WL 2347278, at *3; *see also FDA v. Brown & Williamson Tobacco Corp*., 529 U.S. 120, 159-160 (2000); *Nat'l Fed'n of Indep. Bus. v. Dep't of Lab., Occupational Safety & Health Admin.*, 142 S. Ct. 661, 666, 211 L. Ed. 2d 448 (2022).

The Federal Government's "water grab" and misappropriation of public funds is overwhelming rejected by the public

Aquaculture Opportunity Areas are the ocean-based equivalent of a land grab; they are a "water grab" by the federal government to benefit massive corporate interests. The public trust doctrine is a legal principle that the public is considered the owner of the ocean resource, and the government must protect and maintain these resources for the public's use. Cordoning off large portions of the Gulf of Mexico for the exclusive use of the private sector actively harms the public, coastal communities, and the livelihoods of residents who live and work along the water.

For years, NOAA has been funneling millions of dollars of taxpayer money into research, development, and start-up funding to develop Confined Animal Feeding Operations (CAFO)-style finfish farms in U.S. waters. These funds have been transferred to the aquaculture industry through programs like Sea Grant and the Saltonstall-Kennedy program. The agency is hardly a disinterested partner in this space, and is listed as a member of the Ocean Stewards Institute, in its California Sea Grant capacity. The Ocean Stewards Institute identifies as "a trade organization advocating for the emerging open ocean aquaculture industry."[10]

Privatizing public resources for the benefit of large corporations, especially those not the U.S., is inherently un-American. Offshore aquaculture proponents have requested long-term (25-year) leases for their facilities spanning hundreds of acres, which is essentially blocking off a swath of public oceans for more than an entire generation. Through the AOA designation process, NOAA is proposing to carve up and hand control of our federal ocean spaces, a public resource that should be managed for the benefit of all Americans, to private corporations and foreign interests. In rushing through permitting for marine finfish aquaculture, NOAA is actively harming fishing families and the many small businesses in coastal communities that support them. NOAA should instead focus on supporting independent fishermen and co-ops, as their small businesses continue to recover from the ongoing COVID pandemic.

Indeed, it is incredible that the Biden Administration would push through an unnecessary and unpopular program like industrial scale marine finfish aquaculture when it is so detached from actually supporting people with access to food. These factory farms take significant time and money to build; they are not community driven, nor will they benefit people from coastal communities. The species grown in these facilities are high-trophic level fish that are destined for high-end local and foreign markets. CAFO-style fish farming has been repeatedly met with fierce opposition from the public, Congress, and even the courts.

[10] https://www.oceanstewards.org/

Few people want to see this industry get a foothold in our public waters except for the mega-corporations (like Cargill, Merck, Sysco, etc.) and their shareholders[11] who see an opportunity to profit from industrially produced fish. In the recent NOAA listening sessions for NOAA's 5 year draft strategic plan on aquaculture, people overwhelmingly voiced their opposition to the inclusion of marine finfish aquaculture as part of NOAA's vision in the first place, and urged its removal from the strategic plan. Participants in the commercial fishing industry have collectively voiced their concerns over being forced to coexist with the marine aquaculture industry, stating that "this emerging industrial practice is incompatible with the sustainable commercial fishing practices embraced by our nation for generations and contravenes our vision for environmentally sound management of our oceans."[12] NOAA has failed to secure public buy-in or societal license to push forward industrial fish farms in federal waters.

Creating AOAs to promote offshore finfish farming harms fishing families and fishing communities

In the AOA Atlas, the agency acknowledges that the Gulf of Mexico commercial fish landings amounted to 1.4 billion lbs of seafood with a value of $796 million, and that the Gulf of Mexico also supports the largest recreational fisheries in the nation.[13] The threat of fish escaping into Gulf of Mexico waters is inevitable, because fish escapes are a regular and ongoing occurrence in the industry. After a massive escape of Atlantic salmon from an aquaculture facility in state waters, the state of Washington investigated the site's operator, Cooke Aquaculture, and found that the company lied about both the cause of the escape and its magnitude.[14] The true number of fish that escaped ended up being roughly 263,000 Atlantic salmon in the Pacific Ocean, much higher than Cooke Aquaculture was willing to admit.[15] As a result, in 2018 Washington Governor Jay Inslee signed into law House Bill 2957 which phases out industrial ocean fish farms in state

[11] https://www.strongerthroughseafood.org/sats-members

[12] Open letter to Members of the U.S. House of Representatives and Senate, Dec. 4, 2018, re: Opposition to marine finfish aquaculture in U.S. waters, http://foe.org/DecFishFarmingSignOnLetter/.

[13] Riley, K.L., Wickliffe, L.C., Jossart, J.A., MacKay, J.K., Randall, A.L., Bath, G.E., Balling, M.B., Jensen, B.M., Morris Jr., J.A. An Aquaculture Opportunity Area Atlas for the U.S. Gulf of Mexico. NOAA Technical Memorandum NOS NCCOS 299. Beaufort, NC. 545 pp., at 54.

[14] Wilson, Deborah. *Report blames negligence, not eclipse, for Washington fish farm collapse.* CBC, February 2, 2018. https://www.cbc.ca/news/canada/british-columbia/fish-farm-collapse-cooke-aquaculture-report-washington-state-1.4516075

[15] Mapes, Lynda V. *Fish farm caused Atlantic salmon spill near San Juans, then tried to hide how bad it was, state says*. Seattle Times, February 2, 2018. Accessible at: <https://www.seattletimes.com/seattle-news/fish-farm-caused-atlantic-salmon-spill-state-says-then-tried-to-hide-how-bad-it-was/>

waters. It does so by banning new leases to non-native net pen operations and prohibits the renewal of existing leases.

Around the world, industrial finfish aquaculture has repeatedly resulted in fish escapes, which impact wild fish and other marine wildlife. For example, in January 2020, 73,600 salmon escaped from a net pen in Mowi, Scotland, marking the third major escape in the area since October 2019.[16] In Norway, approximately four million fish escaped in a single year.[17] AquaChile reported the escape of 787,929 fish in 2013 due to bad weather that damaged cages.[18] In 2018, 680,000 fish escaped from Marine Harvest Chile, 109,515 from Bakkafrost Faroe Islands, and 120,000 from Huon Aquaculture in Tasmania.[19] Recognizing the regularity of fish escapes from ocean-based net pens, the U.S. Council on Environmental Quality has stated that it "must be *assumed* that escapes will occur" from net pens.[20]

Fish escapes can disrupt the marine ecosystem and threaten wild fisheries. Farmed fish are genetically inferior fish, and when they interbreed with wild fish populations, they bring down the fitness and survivability of the wild fish populations.

If farmed fish from facilities sited within AOAs are actually sold in the U.S., they will likely undercut wild fisheries, and drive small fishing businesses to closure – the impacts of global salmon farming on small-boat salmon fishermen in Alaska during the 1990s are a textbook example of this effect, which caused economic insecurity and contributed to permit loss in small fishing communities.

Floating CAFO-style fish farms incubate and proliferate parasites and diseases (e.g., sea lice) that then spread to the wild fish populations. This is harmful to both the marine ecosystem and wild fisheries. There is more evidence that pathogens from farmed salmon spread to wild salmon: piscine orthoreovirus (PRV) is widespread in farmed salmon and is associated with heart and

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[16] *Escape calls high energy salmon sites into question*, The Fish Site (Jan. 20, 2020), https://thefishsite.com/articles/mowi-reports-mass-salmon-escape-from-colonsay.

[17] Nat'l Marine Fisheries Service Pac. Islands Reg'l Off., Draft Programmatic Env't Impact Statement (DPEIS) 171 (2021).

[18] Lola Novarro, *Here are the largest recorded farmed Atlantic salmon escapes in history*, IntraFish (Feb. 1, 2019), https://www.intrafish.com/aquaculture/here-are-the-largest-recorded-farmed-atlantic-salmon-escapes-in-history/2-1-388082.

[19] *Id*.

[20] Council for Environment Quality & Office of Science and Technology Policy, Case Study No. 1: Growth-Enhanced Salmon, at 23 (2001), https://clintonwhitehouse5.archives.gov/media/pdf/salmon.pdf; *CEQ and OSTP Assessment: Case Studies of Environmental Regulations for Biotechnology*, https://hygeia-analytics.com/wp-content/uploads/2016/12/RP_RegGETech_CEQ.pdf.

skeletal muscle inflammation.[21] *Tenacibaculum maritimum* is known to cause disease and mortality.[22] The toxic chemicals that offshore fish farm operators use to treat these diseases are widely known to harm other marine life and commercially-sought species as well, as discussed further below. That NOAA would nonetheless enthusiastically pursue the permitting of factory fish farms that are known to harm the very fisheries that the agency is tasked with conserving and managing is deeply troubling.

Creating AOAs would harm the marine environment and exacerbate climate change

For a variety of logistical reasons, the AOAs have generated minimal interest from companies looking to engage in shellfish or seaweed farming. Instead, the agency must be honest in acknowledging that the farming of high-trophic level finfish - that is, carnivorous or omnivorous fish that require high animal protein inputs - is the ultimate endgame for these public-turned-private spaces.

Industrial offshore finfish aquaculture **leads to overfishing** of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from globally-sourced wild forage fish, including anchovies, menhaden, sardines and other small fish that are critically important to the diet of marine wildlife, including birds, dolphins, sharks, and other fish. Removing massive amounts of forage fish from our oceans reduces prey availability for other marine species and can change relationships in our ecosystem with potential widespread consequences.

NOAA must assess impacts of these industrial facilities on all species, not just those that are listed under the Endangered Species Act. The agency's AOA Atlas notes that "The Gulf of Mexico teems with sea life, from shrimp in the coastal estuaries to deep-water corals living thousands of feet below the surface. Coastal areas are home to a wide variety of living resources, including waterfowl, estuarine shellfish, marine mammals, sea turtles, and fish."[23] Flower Garden Banks National Marine Sanctuary, off the coast of Texas and Louisiana, was recently discovered to be a nursery ground for the giant manta ray,[24] which is globally listed as endangered by the IUCN Red

[21] Palacios G, Lovoll M, Tengs T, Hornig M, Hutchison S, et al. (2010) Heart and Skeletal Muscle Inflammation of Farmed Salmon Is Associated with Infection with a Novel Reovirus. PLOS ONE 5(7): e11487. https://doi.org/10.1371/journal.pone.0011487

[22] Avendaño-Herrera R, Toranzo AE, Magariños B. Tenacibaculosis infection in marine fish caused by Tenacibaculum maritimum: a review. Dis Aquat Organ. 2006 Aug 30;71(3):255-66. doi: 10.3354/dao071255. PMID: 17058606.

[23] Riley, K.L., *supra* n. 13 at 52.

[24] Jason Daley, *Teeming Manta Ray Nursery Discovered in the Gulf of Mexico,* Smithsonian Magazine. (June 19, 2018),

List of Threatened Species.[25] NOAA has listed nineteen different marine species in the Gulf of Mexico that are listed as threatened and endangered species and critical habitats directly under NOAA's jurisdiction; these species include sea turtles, coral, fish, two species of whales, one species of shark, and the giant manta ray.[26] It is extremely likely that aquaculture activities would directly or indirectly impact these species or their habitat. Because the proposed facilities will be located in, or near, species' migration routes or in their habitat, NOAA must analyze the AOA designations' cumulative effects of this project and other proposed projects for the full term of any proposed permit on species.[27]

Similarly, NOAA must also assess impacts on national marine sanctuaries. NOAA's southeast study area overlaps with the Florida Keys National Marine Sanctuary, and its western study area overlaps with the aforementioned Flower Garden Banks National Marine Sanctuary.[28] These two marine sanctuaries provide critical protection for coral reefs and habitats for a variety of marine species,[29] which industrial aquaculture will inevitably impact.

Entanglement from ropes, lines, and net pens may harm endangered species and other wildlife in the proposed areas, especially as the facilities' propensity to act as fish aggregating devices (FADs) further exacerbates risks of entanglements and vessel strikes as species are drawn to the facilities. Recently, NOAA has admitted that industrial aquaculture may attract predators as a result of fish escapes, food drifting outside the pens, and other animals aggregating around the pens.[30] In March 2017, an endangered Hawaiian Monk Seal died due to entanglement in net pens at Blue Ocean Mariculture, which is a NOAA research farm.[31] The FAD effect may result in more frequent encounters with protected species, which could increase the likelihood of injury from structures or equipment associated with the facility.[32]

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https://www.smithsonianmag.com/smart-news/first-manta-ray-nursery-discovered-gulf-mexico-180969410/

[25] Marshall, A., Barreto, R., Carlson, J., Fernando, D., Fordham, S., Francis, M.P., Derrick, D., Herman, K., Jabado, R.W., Liu, K.M., Rigby, C.L. & Romanov, E. 2022. *Mobula birostris* (amended version of 2020 assessment). *The IUCN Red List of Threatened Species* 2022: e.T198921A214397182. https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T198921A214397182.en. Accessed on 22 July 2022.

[26] NOAA Fisheries. Threatened and Endangered Species List Gulf of Mexico, last updated July 21, 2022. https://www.fisheries.noaa.gov/southeast/consultations/threatened-and-endangered-species-list-gulf-mexico

[27] *See* 33 U.S.C. § 1371(c)(1).

[28] Riley, K.L., *supra* n. 13 at 86.

[29] Riley, K.L., *supra* n. 13 at C7.

[30] Luke T. Barrett, et al., *Impacts of marine and freshwater aquaculture on wildlife: a global meta-analysis*, Reviews in Aquaculture (2018).

[31] Jones, Caleb. Rare monk seal dies in fish farm off Hawaii. USA Today. March 17, 2017. https://www.usatoday.com/story/news/nation/2017/03/17/rare-monk-seal-dies-fish-farm-off-hawaii/99295396/

[32] Barret*, supra* note 30*.*

Waste from intensive finfish farming (excess feed, fish poop, and any chemicals used on the fish or pens) readily flows from the net pens into surrounding waters. In many cases, the nitrogen outputs associated with the concentrated rearing of hundreds of thousands of fish in a limited area is equivalent to the sewage output of major U.S. cities; worse, in this case, it is *untreated.*

Nutrient pollution decreases oxygen levels in our waters, killing off aquatic life and creating low-oxygen "dead zones" and harmful algal blooms.[33] Two of the proposed AOAs, C-11 and C-13, lie within the Gulf's dead zone. Climate change further exacerbates these risks of harmful algal blooms, as warmer, more acidic ocean waters increase both the frequency and toxicity of these events.[34] Harmful algal blooms produce toxic chemicals that can kill fish and other vertebrates by affecting their central nervous systems, and can cause serious illness in humans with severe or chronic respiratory conditions.[35]

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, *Karenia brevis*, relies on many sources of nutrients as it forms and intensifies on the west Florida shelf.[36] The Velella Epsilon project off of Sarasota, FL, and other prospective sites promoted through this misguided AOA program would and could fall within the initiation and intensification zone for Florida red tide.[37] While the pilot project may not cause red tide bloom initiation, nutrient inputs associated with tens of thousands of fish raised within net-pens could sustain and exacerbate bloom conditions. In addition, fish held in these pens would be susceptible to the toxin produced by *Karenia brevis*. Recent studies have shown that *Karenia brevis* is able to utilize nutrients from decaying fish to fuel blooms.[38]

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from its beaches. The local Chamber of Commerce reported that the event caused **$47 million in economic losses** from July to December related to tourism, real estate and recreational fishing. Permitting a nutrient-polluting aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate existing water quality

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[33] Donald Boesch *et al.*, Pew Oceans Comm'n, *Marine Pollution in the United States* 20-22 (2001).
[34] Crable, M. Climate change could make toxic algal blooms in our oceans more deadly. *Phys.org* (2020) https://phys.org/news/2020-07-climate-toxic-algal-blooms-oceans.html
[35] NOAA, Harmful Algal Blooms, https://oceanservice.noaa.gov/hazards/hab/.
[36] Heil, C.A. et al. 2014. Blooms of Karenia brevis (Davis) G. Hansen & O. Moesrup on the West Florida Shelf: Nutrient sources and potential management strategies based on a multi-year regional study. *Harmful Algae* 38: 127-140. http://dx.doi.org/10.1016/j.hal.2014.07.016.
[37] Weisberg, R.H. et al. 2019. The coastal ocean circulation on the 2018 west Florida shelf K. brevis red tide bloom. *Journal of Geophysical Research: Oceans* 124. https://doi.org/10.1029/2018JC014887.
[38] Killberg-Thoreson, L., R.E. Sipler, C.A. Heil, M.J. Garrett, Q.N. Roberts, & D.A. Bronk. 2014. Nutrients released from decaying fish support microbial growth in the eastern Gulf of Mexico. *Harmful Algae* 38: 40-49. http://dx.doi.org/10.1016/j.hal.2014.04.006.

issues. NOAA must consider the likelihood of algal blooms in all study areas and assess the potential harms that could occur to the region.

The spread of disease is also of grave concern. There are documented studies of large populations of sea lice having left their origin sites of fish farms into the broader ocean environment, both in the Atlantic and Pacific oceans. In March 2022, a study from *Scientific Reports* notes: "Our results suggest that salmon lice in the Pacific Ocean have recently evolved substantial resistance to the antibiotic EMB [“SLICE”], and that salmon-louse outbreaks on Pacific farms will therefore be more difficult to control in the coming years.”[39] A May 2021 study from *Royal Society* shows how the industry is losing the "arms race” in the North Atlantic Ocean because multiresistant salmon lice are dispersed throughout.[40]

As parasites develop resistance to these chemicals, there is a growing trend to increase the level of toxicity of the chemicals used in response; this of course further increases the load of toxic chemicals in the marine environment. NOAA must assess these potential discharges since these pathogens, parasites, and the chemicals used to treat them can easily spread to wild fish, including wild populations that are listed as endangered or threatened under the Endangered Species Act.

The chemicals used as anti-foulants, antibiotics, and pesticides are often **carcinogenic and toxic to marine life**; these chemicals (e.g., organophosphates, cypermethrin) are openly discharged into the marine environment. In fact, up to 75% of antibiotics used by the industrial aquaculture industry directly absorb into the surrounding environment.[41] In Nova Scotia, the use of the antibiotic EMB resulted in “widespread damage to wildlife,” including “substantial, wide-scale reductions” in crabs, lobsters and other crustaceans close to marine finfish facilities.[42]

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[39] Godwin, S.C., Bateman, A.W., Kuparinen, A. *et al.* Salmon lice in the Pacific Ocean show evidence of evolved resistance to parasiticide treatment. *Sci Rep* 12, 4775 (2022). https://doi.org/10.1038/s41598-022-07464-1.

[40] Fjørtoft Helene Børretzen, Nilsen Frank, Besnier Francois, Stene Anne, Tveten Ann-Kristin, Bjørn Pål Arne, Aspehaug Vidar Teis and Glover Kevin Alan. 2021. Losing the ‘arms race’: multiresistant salmon lice are dispersed throughout the North Atlantic Ocean *R. Soc. open sci.* 8: 210265. https://doi.org/10.1098/rsos.210265.

[41] United Nations, Fro*ntiers 2017: Emerging Issues of Environmental Concern*, at 15 (2017), https://www.unenvironment.org/resources/frontiers.

[42] Rob Edwards, The Sunday Herald, *Scottish government accused of colluding with drug giant over pesticides scandal* (June 2, 2017), http://www.heraldscotland.com/news/15326945.Scottish_government_accused_of_colluding_with_drug_giant_over_pesticides_scandal/.

When it comes to carbon footprint, proponents of offshore finfish farming compare apples to oranges, in contrasting various farmed fish species to land-based livestock, instead of comparing it to land-based fish farming such as predominantly herbivorous species like tilapia or catfish. The carbon footprint for farmed carnivorous finfish is also significantly miscalculated in most models. There is a **massive carbon footprint** associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping the farmed fish in cages, feeding them, medicating them, and harvesting them. Instead, most models that calculate the carbon footprint of farmed salmon, for example, rely on the unrealistic expectation that a unit of farmed salmon in Norway was fed from fishfeed derived exclusively from within Norway, and will be eaten by a person in Norway. This does not reflect the reality that industrially-grown salmon is sold globally, and that the international fishfeed industry - both globally sourced and globally distributed - is not structured in such a "local" manner.

CAFO-style fish farming does not feed Americans or help alleviate hunger

In most cases, it takes more fish to feed the farmed fish than for people to simply eat the lower-trophic level fish in the first place. This is an **inherently unsustainable and energy-intensive model** that leads to a **net loss in fish and animal protein**, mocking the purported "feed the world" claims of NOAA and industry alike, through offshore finfish aquaculture.

The higher trophic level fish is aimed to be sold to the higher-end market, since it will be so expensive to set up the infrastructure. This often includes foreign markets, as most of our country's landed fish and aquaculture is sold abroad. In other words, opening up our waters for foreign investors and mega corporations does not necessarily mean that the farmed fish would be sold domestically, beyond a few expensive restaurants and boutique grocery retailers, nor at an affordable price: it will go where the money is, and leave us with an ecological and economic mess and little else.

Better technology cannot "save" an open flow-through CAFO

Other countries, like Denmark and Canada – both often considered global leaders in offshore marine finfish aquaculture – are moving away from the practice after recognizing harmful effects from it. Prime Minister Trudeau has ordered the phasing out of open-net salmon farming, and that these operations should be land-based instead. This is in no small part to the devastating impact that the salmon farming industry has on wild fish populations, First Nations, and the marine environment. This begs the question: why would the U.S. start pursuing the

promotion of an outdated, largely unwanted, and dangerous form of finfish farming when there are so many better ways to provide seafood?

Scientifically unsound in conception and siting

It is Incredible that NOAA - an agency with so many qualified scientists and experienced fishery regulators on staff - is pushing forward in creating AOAs for offshore finfish farming. This siloed approach to management demonstrates a profound lack of knowledge of fisheries on the part of the agency's proponents, and a grave miscalculation on how important science and public input is in the fisheries regulatory process. The members of this coalition encourage agency staff to talk with fellow staff from different departments entirely, and to also engage with scientists and colleagues *outside* of the aquaculture industry. This can help cut down on both groupthink and agency capture.

NOAA has stated: "The dead zone in the Gulf of Mexico affects nationally important commercial and recreational fisheries."[43] Further, NOAA scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment."[44] Industrial scale finfish aquaculture in the Gulf would worsen this existing problem. The proposal to site **two of the AOAs in the Gulf dead zone** is a recipe for disaster.

Hurricanes regularly cause widespread devastation in the Gulf of Mexico, and are becoming more intense and frequent.[45] For 2022, NOAA's National Weather Service is "predicting above-average hurricane activity," which "would make it the seventh consecutive above-average hurricane season."[46] Hurricane season is literally half of the whole year, from June 1 to November 30, and this new normal of more frequent and devastating hurricanes makes the idea of siting any offshore fish farms in the Gulf of Mexico pure folly.

For the many reasons above, including the lack of authority to regulate aquaculture under existing law, our members strongly urge NOAA to refrain from identifying any Federal waters offshore in the Gulf of Mexico (or anywhere else) as Aquaculture Opportunity Areas. We recommend the no action alternative.

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[43] NOAA Media Release. *Average 'dead zone' for Gulf of Mexico predicted,* June 9, 2016. https://www.noaa.gov/media-release/average-dead-zone-for-gulf-of-mexico-predicted
[44] *Id.*
[45] EPA; IPCC, supra note 15.
[46] National Oceanic and Atmospheric Administration. *NOAA predicts above-normal 2022 Atlantic Hurricane Season,* May 24, 2022. https://www.noaa.gov/news-release/noaa-predicts-above-normal-2022-atlantic-hurricane-season

Sincerely,

James Mitchell
Legislative Director
Don't Cage Our Oceans
jmitchell@dontcageouroceans.org
202-643-1830

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0088
Comment from Thomas, Claire

Submitter Information

Name: Claire Thomas
Address:
Mandeville, 70471
Email: cdt1958@yahoo.com

General Comment

Here in S. Louisiana we deal with invasive species every day. From Apple Snails and Nutria to Tallow trees.

Factory farm aquaculture off our coast sounds to me like a disaster. Another bad idea that could impact the Gulf's fragile environment yet again.

We all know what havoc a hurricane can deal out so why would anyone think these farms would withstand the wrath of one? It is just a matter of time before the non-indigenous species is set free into the gulf waters.

Please leave our ecosystem alone!

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0089
Comment from Bradford, Angelle

Submitter Information

Name: Angelle Bradford
Address:
Baton Rouge, LA, 70809
Email: bradford.751@osu.edu
Phone: 2254548319

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to

establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by “high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment.” Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0090
Comment from Parra, Natalie

Submitter Information

Name: Natalie Parra
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Waialua, HI, 96791
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Phone: 3109244604

General Comment

I strongly support Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

These factory farms are not community driven and they will not benefit people living in coastal communities. There has been great opposition to these facilities and it seems the only ones who support them are corporations like Cargill, Merck, and Sysco.

These facilities also have a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This industrial activity is not a solution and will only exacerbate our environmental, economic, and social problems.

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0091
Comment from Freistadt, Marion

Submitter Information

Name: Marion Freistadt
Address:
LA,
Email: marionfreistadt@yahoo.com

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work

along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by “high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment.” Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0092
Comment from American Sportfishing Association

Submitter Information

Email: mguyas@asafishing.org
Organization: American Sportfishing Association

General Comment

See attached file(s)

Attachments

ASA ltr Gulf AOAs pre-PEIS July 2022

July 27, 2022

Andrew Richard
Regional Aquaculture Coordinator
NMFS Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Dear Mr. Richard:

On behalf of the American Sportfishing Association (ASA), we appreciate the opportunity to provide comments on the scope of the programmatic environmental impact statement (PEIS) for Gulf of Mexico Aquaculture Opportunity Areas (AOAs) (Document ID NOAA-NMFS-2022-0044). ASA is the trade organization for the sportfishing industry, representing manufacturers, distributers, retailers, and conservation organizations. In general, ASA supports development of the aquaculture industry in the United States to provide jobs and additional food sources for domestic consumers without putting additional pressure on wild fisheries that are important to recreational anglers. We are supportive of this process to inform offshore marine aquaculture planning in the Gulf of Mexico.

ASA recognizes that appropriate regulatory safeguards must be in place to prevent potential negative impacts on wild stocks, marine ecosystems, and coastal communities. Congressional action is needed to set a national regulatory framework for marine aquaculture in federal waters to provide such safeguards. Nonetheless, we recommend several issues be explored in the PEIS to help inform the future of offshore aquaculture in the Gulf of Mexico and identify regulatory and permitting needs:

- Risks and impacts of disease and escapement to wild (both native and naturalized) stocks and broader ecosystem, especially given the frequency of strong hurricanes in the Gulf of Mexico. ASA does not support rearing genetically-modified species that pose a high risk to native/naturalized stocks, and recommends limiting aquaculture activities to native species to help minimize such concerns.
- Impacts of aquaculture installations in each of the proposed AOAs on wild stocks, including potential changes in distribution and migration patterns;
- Effects of red tides and the Gulf of Mexico dead zone on potential aquaculture operations in each of the proposed AOAs;
- Impacts of discharges on water quality and their potential fuel and/or effect the severity of red tides and the dead zone;

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1001 N. Fairfax Street, Suite 501, Alexandria, VA 22314 • 703-519-9691 • Fax: 703-519-1872
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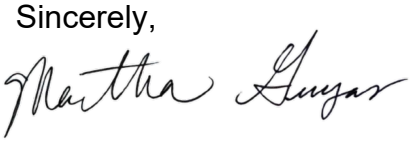
- Impacts from installations and associated marine debris on navigation, scenic resources, fisheries habitats, as well as other existing and anticipated uses;
- Access to public waters surrounding aquaculture operations and AOAs for recreational fishing. ASA believes recreational fishing and boating access limitations should be minimized to those necessary for safety in the area of aquaculture installations.

Thank you for the opportunity to provide comments to inform development of offshore marine aquaculture in the Gulf of Mexico. We look forward to review of the draft PEIS in the future.

Sincerely,



Martha Guyas
Southeast Fisheries Policy Director

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0093
Comment from Aquatic Life Institute

Submitter Information

Email: giulia@ali.fisj
Organization: Aquatic Life Institute

General Comment

At Aquatic Life Institute, our primary focus is on identifying priority areas where animal welfare interventions are most needed to reduce suffering in aquaculture facilities. We do this by engaging with key decision-makers, and implementing high welfare standards.

In the comment below, we offer three main recommendations to the National Oceanic and Atmospheric Administration on:

1.Feed Composition and Feeding
2.Stocking Density
3.Water Quality

We believe that animal welfare is an issue of importance unto itself, and that in many cases such as this, improved animal welfare (e.g. appropriate stocking density, responsible feeding practices, good fish health) can have auxiliary benefits, including making aquaculture more resilient to the urgent threat of climate change.

In the attached documents you will find two of our signature reports:
- Benefits of Aquatic Animal Welfare for Sustainability, and
- Key Aquatic Animal Welfare Recommendations for Aquaculture

These reports have been signed by over 85 non-profit groups and other stakeholders.

1. Feed Composition and Feeding

In order to reduce the number of animals in the supply chain, producers must move toward the use of alternative feed products, higher feed efficiency ratios, and the substitution of carnivorous farmed species with herbivorous species, extractive species, and integrated agriculture-aquaculture systems where fish and their feed are co-produced.

The use of Fish Meal/Fish Oil (FMFO) in the feed of herbivorous and omnivorous aquatic species/life stages must be prohibited. Where obligate carnivores are farmed, the minimum amount of FMFO should be used while still ensuring good welfare, including good health.

2. Stocking Density

Space and stocking density requirements are essential from a welfare, water quality, and disease incidence perspective. Long-term effects of climate change could result in higher rates of pathogenic bacteria, transmission and virulence of common parasites, and potentially new pathogens. Robust fish welfare policies lead to healthier fish.

As with terrestrial animals, the amount of space available to each animal, and the density at which the animals are stocked is highly important. In order to have a life worth living, fishes and other aquatic animals must have sufficient space to exercise their species-specific behaviors. Increasing the total swimmable water volume per individual, not just minimizing stocking density, has the potential to be a very high-impact intervention from a welfare perspective. The available space and volume must reflect the species' needs (e.g. for a schooling species, more space will likely be necessary).

Excessive stocking densities are associated with decreased growth, diminished nutritional uptake, reduction in feed conversion efficiency, fin erosion, gill damage, immunosuppression, inter-fish aggression, and disturbed movement activity. It is also one of the most tractable areas of welfare, as no infrastructural investment is required to stock fewer animals. In most cases, the legal limits on stocking density are above the density recommended by the best available evidence.

3. Water Quality

Aquaculture sites should be carefully chosen, or designed, so as to ensure an adequate flow of clean water of suitable quality in the enclosures, according to the characteristics of the system and to the species' specific requirements. Water quality parameters must at all times be within the adequate range that sustains normal activity and physiology for a given species.

One of the most important measures for mitigating greenhouse gas emissions from aquaculture is improving fish health through the improvement of water quality management.

We would like to thank the National Oceanic and Atmospheric Administration for the opportunity to comment. We hope that our comment provides insightful feedback, and we look forward to showing how a data-driven and science-based animal welfare policy can facilitate aquaculture resilience.

Attachments

Benefits of aquatic animal welfare for sustainability

Key Aquatic Animal Welfare Recommendations Aquaculture

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0094
Comment from Taproot Earth

Submitter Information

Email: kdix@taproot.earth
Organization: Taproot Earth

General Comment

Please find attached comment from Taproot Earth

Attachments

Taproot comment NOAA-NMFS-2022-0044

Taproot Earth is firmly opposed to offshore finfish aquaculture. In addition to the comments below, we note that the proliferation of salmon aquaculture led to a collapse of prices in the early 2000s in Alaska. The collapse put many fisherfolk out of business and devastated local economies.

Offshore aquaculture is a highly automated industry that will put fisherfolk out of business and/or convert them to low-wage workers. These economic impacts must be anticipated and considered.

Please adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from

the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world’s problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0095
Comment from Fischer , Katie

Submitter Information

Name: Katie Fischer
Address:
Matlacha, FL, 33993
Email: katie@livetheislandlife.com
Phone: 239-850-6866

General Comment

My family owns and operates a fish house and retail fish market in Matlacha FL and we are very involved in water quality issues particularly in the offshore areas. In 2018 we had catastrophic red tides that destroyed fish populations which we are still trying to recover from. Our fishing business was severely effected as well, resulting in lower catches and lowered quotas which is still having a lasting effect on many small owner operated boats who are already facing inequities because of management decisions. Concentrated fish operations in the Gulf of Mexico would result in increasing nitrogen loads which is fuel for red tide blooms to occur, grow rapidly and sustain for long periods of time. Not only do red tide blooms harm the ocean they also have very harmful effects on human health. Introducing farmed fish will also have harmful effects on our natural fish populations which we are still nurturing back to health. Where does the waste from these farms go? How will they not harm natural fish populations? These answers can not be given without some degree of risk or uncertainty. The location chosen is in the heart of a very important hardbottom area that would disrupt fishing practices for commercial AND recreational. I can speak for my island in saying WE DO NOT WANT FISH FARMS in our pristine Gulf of Mexico. The Gulf of Mexico is not the governments property to decide what to do IT IS THE AMERICAN CITIZENS to protect from greed of overexploiting. NOAA is making a mistake by promoting aquaculture and is putting the health of our waters and the health of those who live here at risk.

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0096
Comment from Zonia, Carolynn

Submitter Information

Name: Carolynn Zonia
Address:
Santa Rosa Beach, FL, 32459
Email: Cdroidzz@gmail.com
Phone: 850-714-3793

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

PUBLIC SUBMISSION

As of: 8/25/22, 8:30 AM
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Tracking No. l65-aqv2-wx8j
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0097
Comment from Savary, Renee

Submitter Information

Name: Renee Savary
Address:
Bonifay, FL, 32425-7609
Email: renee@twinoaksfarm.net

General Comment

PLEASE ... NO ... to fish farms ... Our gulf is already in such a bad shate it does not need more pollution ...

PUBLIC SUBMISSION

As of: 8/25/22, 1:11 PM
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0098
Comment from Istre, Zachary

Submitter Information

Name: Zachary Istre
Address:
Inverness, FL, 34450
Email: zackistre@aol.com

General Comment

I am a commercial diver off gulf coast if fl. Zachary Istre Reef permit fisherman We harvest and sell reef fish.

These aquaculture farms are going to be in areas we and many others fish. Sounds like a awful plan and has high chance of spreading disease and killing our native resources.
How about use the money and plan for the fish farms and invest in hatcheries. Repopulate Millions and millions of our native fish that are in trouble or are overfished.

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0099
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous

General Comment

There should be no fish farms in the Gulf of Mexico. It has been proven to be damaging to native, natural fish and also the water quality itself. Preserve the Gulf of Mexico and do not allow this commercial intrusion.

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0100
Comment from birren, Michael

Submitter Information

Name: Michael birren
Address:
Weeki Wachee, FL, 34613
Email: mymail1267@yahoo.com
Phone: 7279195640

General Comment

Good Day and Thank you for taking my comment on the aqua culture project for the Gulf of Mexico. My name is Michael Birren and im a 3rd generation commercial fisherman. We operate 3 vessels and process our own seafood with 2 if my sons & wife involved in the business located in Hernando Beach Florida . I have spent a long time on the Gulf Of Mexico waters and have seen the ups & downs of weather, Red Tides, oil spills, barge or ship damage to our crab traps. With that said I feel the Aqua Culture project is a Bad idea for the Gulf and a disaster waiting to happen. With Hurricanes very common these pens could get damaged or broke lose from there locations that would cause an aids to navigation for other vessels. Or worse thousands of dead fish on our beaches. Ref tide is another very common factor here in Florida that is very unpredictable and could cause a major impact on the fish in these pens. The waste created by all the fish and food to feed them would impact the area greatly where the pens are located. The area in particular that would affect my business greatly is the tampa area pens. The locations provided are in a very good location for grouper fishing and stone crabbing. The bottom in good hard rocky area that would no linger be accessible if the pens are put in this location. If this project is to be placed in the Gulf I would at least hope they would consult the local fisheries for their opinions which they clearly have not done as they have stated. These type of pens would be better suited to be way offshore in very deep waters away from our beaches and fishing areas if they are approved. I strongly urge the council to reconsider this proposal due to the lives and businesses they will negatively affect. We are constantly losing our gear to ships and barges traveling thorough the area and our traps are clearly marked as im sure these pens will be too But we still have negative impacts from them every day and I feel this could be the same with the

pens. If damage to the pen is made by any number of disasters fish will escape and cross breeding is inevitable. The Gulf of Mexico has long been a success story for seafood and different stocks that call these waters home I would hate to see this ruined by a Bad Decision. In closing I would please ask that you not approve the aqua culture pens for the Gulf as they would be much better suited somewhere with better water quality & less volutile weather. Thank you Michael J Birren Gulf Seafood Products Inc.

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0101
Comment from Sanibel-Captiva Conservation Foundation

Submitter Information

Email: mdepaolis@sccf.org
Organization: Sanibel-Captiva Conservation Foundation

General Comment

See attached file(s)

Attachments

Aquaculture Farming Comment Letter

Andrew Richard
Regional Aquaculture Coordinator
NMFS, Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

RE: Gulf Aquaculture Opportunity Areas PEIS

Dear Mr. Richard,

The Sanibel-Captiva Conservation Foundation (SCCF) is a 501(c)(3) organization dedicated to the protection of the Sanibel and Captiva Islands and the surrounding areas. As a barrier island community situated in the Gulf of Mexico at the mouth of the Caloosahatchee River, Sanibel and Captiva have many important marine and terrestrial habitats utilized by a plethora of species that all require clean water to survive. Our organization studies and surveys terrestrial and marine life on the islands, and our marine lab monitors water quality throughout the area, as well as red tide events and other harmful algal blooms. SCCF does not support the siting of any large-scale aquaculture operations in the Gulf of Mexico. Aquaculture is an important method of producing food and supplementing our natural fisheries. Small shellfish aquaculture can be beneficial to the surrounding areas by providing ecological services to filter and denitrify the water. However huge concentrations of finfish placed in the Gulf is likely to cause harm to our ecology, our economy and our way of life on Sanibel and Captiva.

Our communities along the Gulf coast of Southwest Florida depend on water quality and it is at the forefront of everything we do. In Lee County alone, tourism generates more than $3billion annually and is dependent on our pristine beaches, world class fisheries, and abundant natural areas. In order to ensure our ecosystems and beaches remain healthy, it is imperative that we take particular care to protect our marine waters. Harmful algal blooms are devastating to our islands. Toxic red tide events are the cause of massive die offs among our native species and drive tourists from our beaches. Recent research has demonstrated that anthropogenic nutrients exacerbate red tide blooms in the Gulf of Mexico.[1] While red tide and some nutrients are naturally occurring in our waters, nutrients from agriculture, septic tanks, and stormwater runoff can greatly enhance blooms. Furthermore, red tide blooms can have a positive feedback effect. As the dinoflagellates produce toxins in greater abundance they begin to kill marine life, which then serve as another large source of nutrients to intensify the bloom. The red tide event that

[1] Miles Medina, *Nitrogen-enriched discharges from a highly managed watershed intensify red tide (Karenia brevis) blooms in southwest Florida*, 827 SCIENCE OF THE TOTAL ENVIRONMENT 154149 (2022).

occurred in 2018 resulted in over 425 tons of dead marine life washing ashore on Sanibel alone, resulting in an economic impact to Sanibel and Captiva islands exceeding $47 million.[2]

Karenia brevis, the organism responsible for Florida red tide, is known to form in the shallow waters along the west Florida Shelf. By placing what amounts to a concentrated fish feeding pen in the initiation area, the potential for a red tide bloom would be greatly exacerbated, before it has a chance to interact with the anthropogenic nutrients present in the coastal areas. Fish farms are massive sources of nutrients, from the feed used to grow the product, to the effluent that the fish give off. Even without calling into question the potential impact of the additional antibiotics and heavy metals that are associated with large-scale farming operations, the introduction of excessive nutrients could be hugely damaging. Furthermore, if the nutrients were to start a red tide bloom offshore, the toxins could wipe out an entire stock in an aquaculture operation. Not only would this be devastating to the fish farm, but a fish die-off in the middle of a bloom would release additional nutrients that could enhance blooms before it reached the shore. The risk of a fomenting additional blooms in the Gulf of Mexico is too great to site a large aquaculture operation in the red tide initiation zone. With the current state of water quality along the Gulf coast, we should be working to mitigate existing sources of nutrients that feed HABs—not contributing more.

Furthermore, it is our belief that NMFS exceeds their authority to act by permitting aquaculture farms to be sighted in federal waters in the Gulf of Mexico. NMFS primarily derives its authority to manage fisheries through the Magnuson-Stevens Fishery Conservation and Management Act. The act granted the agencies power, through Congress, to "provide for the conservation and management of fisheries and other purposes."[3] The clear intent of the Act is to manage natural fisheries to prevent overfishing. This should not be interpreted to include commercial aquaculture operations. The claim that large-scale aquaculture operations will reduce market pressures on our natural fisheries is at best inconsequential and at worst a fallacy. As the United States Supreme Court stated in *West Virginia v. EPA*, the major questions doctrine requires that "a clear statement is necessary for a court to conclude that Congress intended to delegate authority 'of this breadth to regulate a fundamental sector of the economy.'"[4] In this instance, no such clear statement exists. Congress intended for the agencies to protect our natural fisheries for conservation through the Magnuson-Stevens act, not delve into commercial aquaculture. By straying into this field, NMFS is overstepping its constitutionally protected authority and runs afoul of the major questions doctrine by legislating under its own direction. NMFS must focus on the conservation of our fisheries and not unconstitutionally allow large scale aquaculture facilities.

We at SCCF urge you to refrain from siting any large-scale aquaculture farms in the shallow waters of the Gulf of Mexico within the know initiation zone of *Karenia brevis*. The

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[2] Home || SCCF, WATER SURROUNDING SANIBEL AND CAPTIVA CLASSIFIED AS IMPAIRED DUE TO NUTRIENT ENRICHMENT (2021), https://www.sccf.org/news/blog/water-surrounding-sanibel-and-captiva-classified-as-impaired-due-to-nutrient-enrichment (last visited Jul 28, 2022).

[3] 16 U.S. Code § 1801 (b) - Magnuson-Stevens Fishery Act. Findings, purposes and policy, LII.

[4] 20-1530 West Virginia v. EPA (06/30/2022), 89 (2022).

potential harm to our communities, our wild-caught fisheries, and our environment is too great to risk. We believe that NMFS is overstepping its authority if it moves forward with this project and the results could be disastrous for Southwest Florida.

Thank you for considering our comments on this important issue.

Sincerely,

Matt DePaolis
Environmental Policy Director

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0102
Comment from Environmental Defense Fund

Submitter Information

Email: rdriscolllovejoy@edf.org
Organization: Environmental Defense Fund

General Comment

We appreciate the Agency's investigation into the conflicts and opportunities for seafood farming in the Gulf of Mexico and for the opportunity to contribute our recommendations. Please see the attached file for our comments.

Attachments

EDF GOM AOA PEIS Comment Letter_FINAL_29July2022

July 29, 2022

Andrew J. Strelcheck
Attn: Gulf of Mexico Aquaculture Opportunity Area PEIS Scoping Comments
263 13th Avenue South
St. Petersburg, Florida 33701
nmfs.ser.aquaculture@noaa.gov

Re: Docket Number NOAA-NMFS-2022-0044
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Mr. Strelcheck:

Thank you for the opportunity to comment on the NOAA Fisheries (Agency) Programmatic Environmental Impact Statement (PEIS) for the proposed Gulf of Mexico Aquaculture Opportunity Areas (Proposal) and share our recommendations on federal aquaculture development opportunities and priorities. The Environmental Defense Fund (EDF) shares in a vision that offshore, federal waters aquaculture can be part of a healthy ocean strategy. We support the expansion of aquaculture into federal waters and believe that Aquaculture Opportunity Areas (AOAs) can play an important role in ensuring that the nation applies a clear focus on environmental and social impacts coupled with management practices grounded in data and research as a foundation for progress. AOAs can also play an important and timely role in building public knowledge, awareness and acceptance of critical advances necessary to inform long term advances in U.S. aquaculture policy and practice.

We commend the Agency and its Southeast Regional team for the extensive research that went into developing the AOA Atlas for the Gulf of Mexico (Atlas). We believe that this process can advance efforts to fill significant knowledge gaps on offshore aquaculture that must be addressed in the AOAs to provide better outcomes for commercial aquaculture operations in the proposed locations. We also believe this process can help bring privately held data and experiences into offshore aquaculture decisions. Accordingly, please accept the following recommendations into the Proposal. We welcome your responses and look forward to continuing to work with you in charting a responsible path forward for offshore aquaculture.

Environmentally, Socially, and Economically Suitable Areas for AOAs

We are pleased to see that the Proposal will account for the most common types of aquaculture, including finfish farming. Although the Atlas notes that "the final proposed aquaculture size and configuration of aquaculture operations as well as species cultivated would require extensive scoping and project planning, permitting, and environmental review," we urge the Agency to also analyze the impacts that various cultivated species would have on their surrounding environment in the initial PEIS. These differing impacts may vastly alter the findings from the Proposal, especially for fed finfish farming because these operations can lead to excess nutrients and waste in the surrounding waters.[1] It also may illuminate potential positive ecological impacts from bivalves or multitrophic farms.[2] Given the paucity of published research on how offshore aquaculture affects the marine environment, we suggest that the Agency define criteria for which species can be farmed in AOAs based on their potential environmental impact and suitability for the area(s).

We agree that any AOA needs to be environmentally, socially and economically suited to its location. The Proposal would benefit from metrics for measuring the social, economic and environmental suitability of AOAs. We ask that the Agency provide more clarity on what, in the Agency's view, would make an AOA suitable in all three of the categories. Similarly, the Proposal would benefit from the Agency adding clarifying metrics for measuring success in these three categories through the siting –and use—of the AOAs.

Specifically, we'd value clarity on how the Agency will assess social and economic suitability for aquaculture in a given location because it is more difficult, but equally important, to assign metrics to these two fields than to science-based environmental suitability. Analysis for social and economic suitability will necessitate that the Agency analyze onshore social and economic impacts of offshore seafood farms in the proposed AOAs, such as from trade and seafood infrastructure development. We recommend developing metrics for social and economic suitability by actively engaging communities that could be affected by expanding the aquaculture industry in nearby waters of the proposed AOA locations and explaining and collaborating on potential benefits. Accordingly, we recommend working with multiple sector

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[1] *See* Weitzman, J., Steeves, L., Bradford, J., Filgueira, R., (2019) Far-Field and Near-Field Effects of Marine Aquaculture, *World Seas: an Environmental Evaluations (Second Edition)* 3: 197-220, https://doi.org/10.1016/B978-0-12-805052-1.00011-5 (Metabolic waste from finfish can travel 1-2 km away in nearshore farms); *see also* Kong, W., Huang, S., Yang, Z., Shi, F., Khatoon, Z, (2020) Fish Feed Quality is a Key Factor in Impacting Aquaculture Water Environment: Evidence from Incubator Experiments, *Scientific Reports* 10, 187, https://doi.org/10.1038/s41598-019-57063-w (researchers found low oxygen zones and eutrophication are a result from metabolic waste in nearshore fish farms specifically); *see also* Fernandes, M., Angove, M., Sedawie, T., Cheshire, A., (2007) Dissolved nutrient release from solid wastes of southern bluefin tuna (Thunnus maccoyii, Castelnau) aquaculture, *Aquaculture Research* 38(4): 388-397, https://doi.org/10.1111/j.1365-2109.2007.01680.x (Researchers found nutrient leaching from pellets, baitfish, and also fish metabolism from finfish pens); *Cf.* Buck, B., Troell, M., Krause, G., Angel, D., Grote, B., Chopin, T., (2018) State of the Art and Challenges for Offshore Integrated Multi-Trophic Aquaculture (IMTA), Frontiers in Marine Science, https://doi.org/10.3389/fmars.2018.00165 (Researchers have found much lower levels of metabolic waste generally from offshore farms.).

[2] For example, researchers found that Integrated Multi-Trophic Aquaculture (IMTA) can reduce excess metabolic waste and nutrients by having shellfish and seaweed absorb it, showing that shellfish and seaweed are actually waste-negative and improve water quality (*see* Buck et al. 2018).

stakeholders and coastal state communities to determine which metrics should be used for measuring social and economic success through farming in an AOA. We urge the Agency to build consensus with diverse groups of local stakeholders and resolve questions before concluding on the environmental, social and economic suitability of the AOAs.

Environmental Impact and Knowledge Gaps

EDF's ecological research leads us to conclude that there are many key knowledge gaps that need to be addressed before the United States is ready to authorize aquaculture operations in federal waters. We commend the Agency on the marine spatial planning and extensive research that went into selecting these initial sites and believe the Agency must determine if there is a strong-enough foundation of scientific knowledge to declare that an area is ready for aquaculture infrastructure and operations. The Atlas will serve as an excellent input to the PEIS, indicating areas that may be suitable for aquaculture based on the factors listed. However, a substantial portion of the PEIS must be concerned with evaluation of potential impacts to the human environment (which includes both the biophysical and human dimensions of the social-ecological systems of which aquaculture is an element). The Agency acknowledges these potential impacts in some detail in the Proposal, and we agree that many of the ecological risks that could be associated with offshore aquaculture could be evaluated with available information. Lessons from overseas data and analysis may also be instructive. Despite the paucity of published research on how offshore aquaculture affects the marine environment, research we performed in 2021 to analyze available data for application to offshore aquaculture indicates that there is currently insufficient information to credibly evaluate all these ecological risks and how to mitigate them.

Below are key knowledge gaps on risks and mitigations for aquaculture offshore that we urge the Agency to address before approving any AOA to ensure the AOAs lead to truly sustainable and safe seafood production for a wide range of aquaculture types and systems:

Feed and Species Selection. Aquaculture operators can dramatically reduce fish in/fish out (FIFO) ratios through selective breeding, careful feed formulation, the use of alternatives to fishmeal/fish oil, and other methods for certain, extremely well-studied, farmable species like salmon[3] or cobia.[4] This means that although the Agency can characterize the ecological risks associated with the use of fishmeal and fish oil derived from reduction fisheries and identify how to further mitigate such risks for those farmable species, these risks will likely persist for the

[3] *See* Aas, T., Ytrestoyl, T., Asgard, T., (2019) Utilization of feed resources in the production of Atlantic salmon (Salmo salar) in Norway: An update for 2016, *Aquaculture Reports* 15, https://www.sciencedirect.com/science/article/pii/S235251341930256X; *see also* Kok, B., Malcorps, W., Tlusty, M., Eltolth, M., Auchterlonie, N., Little, D., Harmsen, R., Newton, R., Davies, S., (2020) Fish as feed: Using economic allocation to quantify the Fish In : Fish Out ratio of major fed aquaculture species, *Aquaculture* 528, https://www.sciencedirect.com/science/article/pii/S0044848620309741.

[4] *See* Benetti, D., Suarez, J., Camperio, J., Hoenig, R., Tudela., C., Daugherty, Z., McGuigan, C., Mathur, S., Anchieta, L., Buchalla, Y., Alarcón, J., Marchetti, D., Fiorentino, J., Buchanan, J., Artiles, A., Stieglitz, J., (2021) A review of cobia, Rachycentron canadum, aquaculture, *Journal of the World Aquaculture Society* 52(3): 691-709, https://doi.org/10.1111/jwas.12810 ("80% FM could be replaced in larger size cobia, attaining a "Fish-In-Fish-Out" (FIFO) ratio of 1.3, without compromising growth performance or health," implying a decrease in FIFO).

foreseeable future due to the cost and lack of production scale of alternative ingredients. It is also currently unclear which species will dominate offshore aquaculture, as offshore growing environments are quite different from nearshore environments. Certain profitable seafood species could grow better than others in offshore farms – and these strategically selected species may not be as well studied with respect to how to improve feed conversion and reduce fishmeal/fish oil content in feeds.

Effluent Concentrations. While it is possible that offshore aquaculture will allow for lower fish densities than inshore aquaculture, resulting in less disease and reduced need for antibiotic use, this is still unproven due to the lack of commercial scale offshore finfish operations that are collecting and sharing detailed data on growth rates, disease incidence and antibiotic use. Similarly, it is also possible that higher energy currents and waves present in U.S. federal waters will result in the dispersion of metabolic waste and unused feed from offshore farms, thereby limiting impacts on marine ecosystems. Additional data on offshore aquaculture effluent concentrations and dispersal may exist but are not publicly available. Yet, from our research, the risk of pollution "hotspots" remains to the extent that offshore farms are clustered in AOAs and that ocean circulation patterns tend to concentrate effluent.[5]

Farm Infrastructure. The higher energy currents and waves associated with offshore environments like those found in U.S. federal waters and the location of the proposed AOAs increases the risk of infrastructure loss or damage.[6] This can increase the risk of escapement.[7] Intact offshore structures also cause fish and other marine wildlife to aggregate, even if farms minimize feed losses through "precision farming."[8] These factors in combination give rise to an enhanced risk of wildlife entanglement and mortality.

Monitoring Sufficiency: We acknowledge that modern aquaculture, especially operations farther from shore, is often a technologically advanced enterprise. There may be sophisticated monitoring models to incorporate into offshore aquaculture operations, yet we've found that there are still significant unknowns related to how offshore farms can be monitored such that risks can be minimized to acceptable levels and ensure that performance standards are being met. Monitoring compliance with performance standards and transporting crews and

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[5] *See* Buck et al. 2018 (Researchers identified risks for metabolic waste accumulation from the aggregation of offshore farm units in close proximity); *see also* Gentry, R., Lester, S., Kappel, C., White, C., Bell, T., Stevens, J., Gaines, S., (2016) Offshore aquaculture: Spatial planning principles for sustainable development, Ecology and Evolution 7, no. 2: 733-743, https://doi.org/10.1002/ece3.2637 (Researcher reference the use of models to predict accumulation and flow of nutrients to inform the siting of farms).

[6] *See* Buck, B., Langan, R., (2017) *Aquaculture Perspective of Multi-Use Sites in the Open Ocean*, https://link.springer.com/book/10.1007/978-3-319-51159-7.

[7] *See* Jensen, T., Thorstad, E.B., Uglem, I., Fredheim, A., (2010) Escapes of fishes from Norwegian sea-cage aquaculture: causes, consequences and prevention, *Aquaculture Environment Interactions* 1, https://doi.org/10.3354/aei00008.

[8] *See* Callier, M., Byron, C., Bengtson, D., Cranford, P., Cross, S., Focken, U., Jansen, H., Kamermans, P., Kiessling, A., Landry, T., O'Beirn, F., Petersson, E., Rheault, R., Strand, O., Sundell, K., Svåsand, T., Wikfors, G., McKindsey, C. (2018) "Attraction and repulsion of mobile wild organisms to finfish and shellfish aquaculture: a review" *Aquaculture* 10(4), https://onlinelibrary.wiley.com/doi/full/10.1111/raq.12208; *see also* Dempster, T., Uglem, I., Sanchez-Jerez, P., Fernandez-Jover, D., Bayle-Sempere, J., Nilsen, R., Bjørn, P.A., (2009) Coastal salmon farms attract large and persistent aggregations of wild fish: An ecosystem effect. *Marine Ecology Progress Series* 385, https://doi.org/10.3354/meps08050.

equipment to remedy problems may be more challenging in remote offshore farms than in nearshore farms, posing risks associated with undetected equipment failures, endangered species encounters and lack of compliance.

Changing Ocean Conditions. We also urge the Agency to incorporate climate change predictive modeling assessments into AOA planning, including the Proposal, as warming oceans and shifting fish stocks could drastically affect the suitability for growing aquacultured organisms in a fixed location.

Through the PEIS, the Agency should carefully consider whether information on nearshore aquaculture and existing offshore pilot studies is sufficient for evaluating the ecological risks of offshore aquaculture within the proposed AOAs or AOA alternatives, and whether new risks (relative to well-studied risk and mitigation measures) may arise. As the Agency continues its evaluations, we suggest incorporating performance standards into AOA criteria, which could help both mitigate impacts such as those related to feed and species selection and drive industry performance forward. We also recommend that the Agency carefully consider whether novel studies, including pilot farms within the AOAs, are required to fully characterize these risks and to develop effective mitigation measures as a critical step toward full-scale development of sustainable aquaculture in the AOAs.

Social Impact

We commend the Agency for asking for comments on how the proposed AOAs could impact local communities. We see value in the Agency incorporating engagement with local stakeholders and communities into every step of the AOA scoping process. Especially in historically marginalized communities, more intentional outreach may be necessary to engage with local stakeholders about how an AOA would affect and benefit their community.

More generally, there are several terms that would be more impactful if clear definitions were included in the Proposal. We appreciate the Agency specifically facilitating feedback for "underserved communities and underrepresented groups, and/or regions and communities that could either benefit from or be adversely impacted by the siting of AOAs." Clear criteria for how the Agency will determine that a community or group is underserved or underrepresented would ensure that the Agency performs intentional outreach to these groups. These metrics may refer to or include a process for how AOA decisions incorporate federal, state, or local environmental justice and equity laws or guidance.

On a community level, we urge the Agency to ensure that shore-side requirements for aquaculture operations are factored into AOA siting decisions. This could include whether a community has sufficient seafood infrastructure or if it would need to be built, road conditions, and increased pollution and traffic congestion due to increased trade activities. Environmental justice impacts considered may include any disproportionate negative environmental, health, cultural or economic impacts to vulnerable communities. Alternatively, compatible shoreside investment could enhance community economic opportunity while taking steps to minimize negative impacts.

Economic Impact

We agree that the PEIS should include socio-economic factors to evaluate how this new industry would affect existing industries, jobs and communities. Prior to establishing AOAs, we strongly recommend increasing the socio-economic data upon which to base the benefits and risks to state communities and other stakeholder sectors from the placement and use of the AOAs, as well as provide a mechanism to continue to incorporate new data into the AOA Atlases. An important aspect of this should include how aquaculture products can act as a complement to wild-caught seafood and an examination of how the expansion of the aquaculture industry could benefit or harm the wild-caught fishing industry.

We also recommend that the economic aspects of the PEIS include a focus on community-level impacts of an expanding aquaculture industry, with a focus on equity and potential for entrepreneurship. For example, will there be opportunities for smaller-scale actors to enter the supply chain or will the AOAs and expanded seafood supply chain be mostly accessible to larger, vertically integrated companies? We also recommend the Agency evaluate the economic impact of expanding offshore aquaculture on existing nearshore and on-land aquaculturists.

We believe more research is needed on the impact that expanding the U.S. aquaculture industry would have on the seafood trade deficit and where U.S.-grown seafood would be consumed—in local communities, domestically, or exported abroad. If farmed products are primarily exported, this will influence Administration-wide goals to reduce greenhouse gas emissions as well as stabilize supply chains. We recommend that greenhouse gas emissions from the entire sector be included in the scope of the PEIS, whether that is for hatchery and rearing infrastructure, seafood processing, transportation or the greenhouse gases tied to aquafeed.[9]

As the offshore aquaculture industry is new to the United States, there is an opportunity to ensure it incorporates equity from the start. We recommend including an evaluation of local workforce readiness in each AOA PEIS to understand where there are opportunities to partner with local universities and job training programs to grow interest in aquaculture as a career choice and educate and train community members interested in aquaculture. This is also an opportunity for the Agency to reach out to diverse groups who have been historically disadvantaged and excluded from cost-prohibitive industries to ensure they have and retain access to workforce development programs and can engage in aquaculture if they wish it.

[9] *See* Xu, J., Xu, C., Su, G., Zhao, K., Xu, X., Li, Z., Hu, Q., Xue, Y., (2022) Current status of greenhouse gas emissions from aquaculture in China, *Water Biology and Security* 1(2), https://doi.org/10.1016/j.watbs.2022.100041.

Conclusion

EDF sees opportunities for a profitable aquaculture industry that advances in an environmentally and socially responsible manner. Utilizing this PEIS process can significantly aid work to address outstanding questions and knowledge gaps. It can additionally be very useful in bringing privately held data and experiences into the public sphere. We appreciate your investigation into the conflicts and opportunities for seafood farming in the Gulf of Mexico and for the opportunity to contribute our recommendations to the proposed PEIS for the Gulf of Mexico Opportunity Areas. We stand ready to discuss our recommendations, the Proposal, and additional opportunities to develop a sustainable aquaculture industry.

Ruth Driscoll-Lovejoy
Senior Manager
Federal Affairs
Environmental Defense Fund

Rod Fujita, PhD
Director of Research and Development
Oceans Program
Environmental Defense Fund

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0103
Comment from Nichols, Austin

Submitter Information

Name: Austin Nichols
Address:
Sarasota, FL, 34237
Email: austindnichols@live.com
Phone: 16073196488

General Comment

We don't want this. Anyone who has read global news in recent years could tell you about the waste produced by fish farms, many of which have been shut down. We already have nutrients in the form of waste water, fertilizer runoff, sewage spills and septic leaks, entering the Gulf from the coast. Now, you're moving to add a waste producer off-shore? Is the idea to make red tide an annual thing and destroy tourism? This is not going to look good for Florida. Please, reconsider. There's got to be a better way.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0104
Comment from Island Seafood Market

Submitter Information

Email: casey@floridawatermen.org
Organization: Island Seafood Market

General Comment

My name is Casey Streeter I am a first generation commercial grouper fishermen in Southwest Florida. I own 4 federally permitted grouper /snapper boats, a federally permitted offshore charter boat, I own two retail seafoods market (Island Seafood Market- Matlacha and Sanibel Island) and I am the founder of Florida Commercial Watermens Conservation a federally registered 501c3 non propfit which does off shore water quality monitoring with NOAA and AOML. I am writing these comment to speak against the offshore finfish aquaculture program that is proposed in the offshore waters of the Gulf of Mexico. This is a terrible idea period. After dealing first hand with offshore red tides and also massive areas of hypoxic water dead zones that were present continuously from Sept 2017- 2019, I saw and documented this water from near shore all the way offshore 70 miles and over 80 miles south of my area. These severe water quality issues are in no way close to being fixed and massive red tides will without a doubt unfortunately be part of our future. The waters of the Gulf of Mexico is like no other waters on Earth, too warm, too shallow and our weather is much too violent with summertime hurricanes and winter time Northwest blows for this type of aqua culture. Our offshore ecosystems are too valuable to our areas blue economy to jeopardize all of our businesses to a hand of large corporations that if something goes wrong will just leave this area and the problems they have caused behind. My community and fellow fishermen are worried about desease transmission into wild stocks, escaption of genetically inferior fish into wild populations and also the impacts on wild caught domestic fish markets. We have seen incidences around the world of fish escaption from pens all over the world with severe impacts on wild populations. NOAA recently published a report with concerns of farm raised Cobia that has escaped from their pens in Ecuador and are headed to California waters with potentially devastating consequences. These pens might work in other place around the world but not here in the Gulf of Mexico. If they are so safe we should set them up in all the marine protected sanctuaries we have set in gulf, highly unlikely to ever happen!

Please think of the long term consequences of these poor planned decision and revoke the permit. Protect our areas blue economy and ecosystems. We do not want these farms in Gulf of Mexico Waters.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0105
Comment from Hamilton, Rasa

Submitter Information

Name: Rasa Hamilton
Address:
St. Petersburg, 33704
Email: helpsedit@gmail.com

General Comment

I please urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who

support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0106
Comment from Siesta Key Association

Submitter Information

Email: tsurprisea@gmail.com
Government Agency Type: Local
Government Agency: Siesta Key Association

General Comment

The Siesta Association is advocating against the installation the fish farms; E-1, E-3 and E-4 along the west coast of the State of Florida; in the Gulf of Mexico.

Attached you will find detailed information behind the Association's request. For further information, sources and documentation please contact the email contained in the attachment.

Thank you for your consideration.

Thomas Surprise, Siesta Key Association Director

Attachments

Attachment for NOAA

My name is Thomas Surprise. I am a Director of the Siesta Key Association. The purpose of these comments is to provide you with information on fish farm test sites E-1, E-3, E-4 (in the Gulf of Mexico) and the potential problems with constructing and operating these experimental fish farms.

To start with, there have been some comments by other organizations as to the age of the data that I provided. Two experiments were mentioned, which were started three decades ago and were disasters. (Nutra Rats and Cudzu) then and have yet to be corrected. Nutra Rats were experimented to control vegetation along the rivers and creeks in New Orleans. With no natural enemies and proliferation, more than rabbits, the rats created a problem that exists today. Not only were the weeds controlled, along the waterways, the vegetation was eliminated which created large erosion problems that still are present today!

Cudzu is a plant brought in to control grass along highways, in Georgia, so mowing would be unnecessary. Today, the cudzu is out of control on 7.4 MILLION ACRES of property in Georgia, Alabama, Florida and Mississippi.

The above-mentioned experiments are in the southeast part of the United States and around the Gulf of Mexico. The data is not aged, the issues have never been resolved.

The proposed fish farm locations E-1, E-3, and E-4 are at the same locations, depths and currents of the blooms which excite Red Tide.

The pollution from one “experiment” may not sound like a lot but the company is speaking of 50-100 farms and that would create a lot of issues for the ecosystem. Also, the fish that are used in the farms are not native to the Gulf Coast of Florida and have the potential of bringing in outside infection to the Marine Life of the Gulf Coast.

Manatees are dying from starvation, due to the problem of already present pollution which is cutting off the sunlight to the seagrass, killing it, which in turn is killing the manatees. The original phosphate mining company is planning to continue dumping polluted "storm water" (which has phosphates in it) and will continue the killing of the manatees. Mosaic, another phosphate mining company, is planning on dumping into a river that flows into the Gulf of Mexico. At the present time, Mosaic is being held off for two years. What happens at the end of that time period? There are too many pollutants already being dumped into our waters, having the Fish Farm Experiments adding MORE would be deadly to marine life. Obviously, adding additional potential pollutants would increase the extinction rate of our precious manatees. Construction and operation of 50-100 farms will wash tons of trash and pollutants onto our world-renowned beaches, also endangering the tourism of the Gulf Coast.

Two invasive fish have been noticed in the waters of the Gulf Coast of Florida.

1st is the LionFish, which has been tracked south of Fort Myers. They feed on commercial sea life, which affects recreational/sport fishing and fishing to supply restaurants.

2nd is the Arapaima (air-uh-pie-muh), which was found dead along the Caloosahatchee River at Cape Coral. This was in the river that Red Tide flows from Lake Okeechobee to the Gulf, coming out between Fort Myers and Cape Coral. The currents turn north and go north, in the Gulf of Mexico. The Arapaima can jump out of the water and grab birds, small mammals, crabs, lizards and other fish. It is one of the LARGEST predator fish, measuring up to 10 feet long and several hundred pounds. This fish has grave potential to do severe damage to the inhabitants of our Gulf Coast. Experiment E-1 dumps directly into this area bringing invasive fish, pollution, and infection at the same time as Red Tide.

For over 200 million years, the Horseshoe Crab has inhabited the Earth. The Gulf Coast of Florida has one of the top two populations of Horseshoe Crabs in the World. The blood of the Horseshoe Crab is currently being used in research, for testing COVID. The world-wide population of Horseshoe Crab is diminishing. In addition, the Horseshoe Crab is very sensitive to infection. With the potential introduction of the invasive fish, pollutants and infection from the fish farm, the likelihood of extinction of the Horseshoe Crab is very high.

The barrier island of Siesta Key is a nesting location for Sea Turtles and Shore Birds, which also could be subjected to extinction by the introduction of the aforementioned invasive fish, pollution, and infection.

Canada, Denmark, and Alaska have departed from the “Aqua Fish Business” and are going to inland farms because of all of the problems that the fish farms have created for their environment.

Questions that require answers prior to the approval of this project are:

1) If the experiment is a failure or turns out bad results, where will the funds come from to correct the disaster?

2) Is “Failure Insurance” required? Who would pay for it? OR can they just leave the devastation and the Gulf Coast Cities pick up the tab?

3) Will someone investigate the reasoning for Canada, Denmark and Alaska's departure from the Aqua Fish Business and going to inland farms?

4) What restrictions are placed on the developers to control the infection, the immense quantities of construction trash, fish waste, and pollution?

5) What is in place to protect the dying manatees, depleting population of horseshoe crabs, the safety of sea turtle hatchlings, and shore birds?

The above is just part of the information that I have acquired. If you would like to discuss more, on this topic, please call me at 941-346-0199.

Most sincerely,

Thomas Surprise, Siesta Key Association Director

1350 N. Portofino Dr., #107

Siesta Key, Florida 34242

941-346-0199

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Document: NOAA-NMFS-2022-0044-0107
Comment from Treffinger, Grace

Submitter Information

Name: Grace Treffinger
Address:
New Orleans, LA, 70119
Email: gtreffinger@gmail.com
Phone: 5123511031

General Comment

My name is Grace Treffinger and I'm from New Orleans, LA. I was a cook during the BP Oil Drilling Disaster and remember the impacts to our food system and seafood supply chain, as well as to local fishers and shrimpers who lost their livelihoods.

I see this effort to cage our oceans and engage in fish farming in the Gulf of Mexico as an extension of an extractive and unhealthy industry for our communities (human and non human).

I'm writing to strongly support Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are “water grabs,” by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

The point is - these fish farms will harm coastal communities and our culture in the Gulf South of harvesting and eating local seafood. We must protect and sustain our way of life. Please support Alternative 1, the No Action Alternative.

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Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0108
Comment from Marasia, James

Submitter Information

Name: James Marasia
Address:
Santa Rosa Beach, FL, 32549
Email: kingsportjim@yahoo.com

General Comment

Ladies/Gentlemen
I oppose fish farms in the Gulf of Mexico. The added pollution caused by these fish production factories cannot be contained. We have enough problems with the oil industry at this time. More pollution isn't needed.

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Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0109
Comment from Williams, Harriet

Submitter Information

Name: Harriet Williams
Address:
FORT MYERS, FL, 33901
Email: bybluewater@gmail.com
Phone: 2396992375

General Comment

I am 100% behind Alternative 1. I want no Aqua Culture in the Gulf!. It will produce too much nitrogen which will impact our already nitrogen and phosphate laden coast that is producing toxic algae. I live in Fort Myers that is already getting an overload of toxins from Lake Okeechobee into the Caloosahatchee River. We are trying to save our estuaries for the continuation of fishing and boating which is the most important factor feeding our SW Florida economy.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0110
Comment from FISH FOR AMERICA USA INC

Submitter Information

Email: jim@jollyrogersii.com
Organization: FISH FOR AMERICA USA INC

General Comment

Having been involved with this issue for multiple years I feel that I can logically comment. The agency (NMFS) never did in my opinion, and also the opinion of many others, conduct an adequate study on the impact of aquaculture on wild caught fishermen. If wild caught fishers are burdened with imported seafood products then farm raised seafood will also compete with our domestic seafood industry. When one looks at the new EQUITY language one would have to consider domestic fishermen as a undeserved sector (community). With the recreational sector harming the livelihood of many gulf commercial fisher communities from over fishing and the consequences disproportionately burdening the commercial sector it obviously violates EQUITY provisions. With the possibility that aquaculture could drastically affect the environment (water Quality), wild caught fishermen, consumer safety and wild fish stocks. it seems logical to re-examine the effort being put forward. Commercial fishers need to be at the table every inch of the way as the agency moves forward, a complete study of the proposed ares needs to include fishing effort and ALL commercial gears types used in these areas.

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Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0111
Comment from Siesta Key Condominium Council

Submitter Information

Government Agency Type: Local
Government Agency: Siesta Key Condominium Council

General Comment

See attached file(s)

Attachments

SKCC.NOAAfishfarm..7.30.22

Siesta Key Condominium Council (SKCC) Mission Statement: *To provide member Condominium Associations, their owners, residents and renters current information applicable to Condominium living in the legislative, legal and insurance arenas, through a series of meetings/speakers and to support efforts that promote* ***safety****,* ***economic stability****,* ***environmentalism****, and the* ***beautification*** *of Siesta Key.*

The Siesta Key Condominium Council representing over 90 member associations and 7000 households on Siesta Key, Sarasota, Florida requests NO ACTION on the Aquatic Opportunity Areas (AOA's) in the Gulf of Mexico.

We contend that the Sarasota area E-3 is unsuitable for an Aquatic Opportunity Area (AOA). A fish farm in this area would not build opportunity and economy, but, instead, endanger it. The amount of revenue the farm could produce would be dwarfed by the millions Sarasota could lose in tourism from red tide as it did in 2017-2019. Algal blooms like red tide are historical problems for offshore finfish farms. Fish discharge, waste and food would increase red tide blooms and exacerbate the problem in an already susceptible area. Pollution and chemicals to prevent sea lice and disease would also degrade the marine environment. Sarasota and other Gulf communities' financial risks from the possible effects of offshore fish farms, such as increased red tide and marine environment degradation, is much greater than their limited potential revenue. The cage could also break loose in hurricanes and fish escapes could affect native ecology. Historically, wherever offshore farms exist, native fish populations decrease. A recent study in Canada (reported in Science Line) confirmed this, so the Canadian government is beginning to close farms. Denmark is also halting development of offshore fish farms. CNN documents algal blooms and diminished native fish even in remote Patagonia. Potential debris due to tropical storms could affect boating traffic, fishing and recreational use of the Gulf.

E-3 is offshore Sarasota, where the Vallela Fish Farm is proposed and where Red tide blooms often originate. E-4 is near Clearwater, where a recent USF study indicated nutrients from the Piney Point Phosphate Spill contributed to a massive red tide outbreak. E-1 is off Fort Myers, also susceptible to red tide. All three areas are vulnerable to hurricanes and damage to the farm.

Residents are frustrated that government agencies refuse to take "No" for an answer despite the massive public outcry and scientific evidence provided at every hearing. Over 250 people appeared and 80 spoke, almost all in opposition to the proposed Vallela Epsilon farm at the EPA hearing on January 28, 2020 in Sarasota at Mote Marine. In addition, the EPA received over 44,400 comments, almost all opposed, except for those in the industry. Comments came from residents, scientists, environmentalists, fishermen, businessmen, elected officials and visitors. The cities of Sarasota, Sanibel and Anna Maria all wrote letters opposing the Vallela Epsilon and any other fish farms in the Gulf. The Siesta Key Chamber of Commerce also opposes, as do six of eight 2022 Sarasota County Commisson candidates (and another says he will research the issue). Federal Gulf waters are a public legacy that sustains our economy and way of life.

Statistics touting a US seafood deficit are misleading and fallacious. The US has a fairly large catch, much of which is exported and some of which is reimported after processing by China and other countries. NOAA's own statistics show the vast majority of imported seafood is inexpensive shrimp from Asia. Offshore fish farms actually would endanger the livelihoods of Gulf fishermen and their families and not aid the global food crisis. There are more sustainable ways to produce food than offshore fish farms.

The cumulative effects of the pollution caused by the proliferation of farms, planned by proponents throughout the Gulf, would endanger its health and the area's main industry - tourism. The Gulf is relatively shallow and claims that tidal action would disperse the discharge and waste from fish farms are unfounded and based on outdated information, as debunked by Dr. Larry Brand, University of Miami Rosenstiel School of Marine Science, and others.

Sarasota and the Gulf are unsuitable for AOA's because fish farms would endanger the mostly tourist economies and quality of marine life that both residents and visitors value highly. Therefore, we request the NO ACTION option on Gulf AOA's.

Siesta Key Condo Council, P.O. Box 40031, Sarasota, FL 34242
skcondocouncil@hotmail.com

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0112
Comment from Manatee-Sarasota Group of Sierra Club Florida

Submitter Information

Email: cris.costello@sierraclub.org
Organization: Manatee-Sarasota Group of Sierra Club Florida

General Comment

July 31, 2022

Mr. Andrew J. Strelcheck
Regional Administrator
NMFS Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Submitted via https://regulations.gov

Docket No. NOAA-NMFS-2022-0044

RE: Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Dear Mr. Strelcheck:

Manatee-Sarasota Sierra Club Group respectfully submits these comments in response to NOAA's "Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings" (Agency/Docket Number RTID: 0648-XB900 RTID.)

Offshore finfish farming in the Gulf of Mexico would result in even more serious negative consequences to regional public health, local economies, quality of life, and natural ecosystems than we already suffer from the introduction of land-based sources of nutrient pollution into gulf waters. Our experience over the last 16 years in the Sarasota and Tampa Bay areas, a region like so many others in the Gulf of Mexico that have suffered intense and prolonged blooms of Karenia brevis and other harmful and nuisance micro and macro algal blooms, dead zones, and the havoc both wreak, makes it clear that the last thing the Gulf of Mexico needs is a new industrial source of nutrient pollution. We support the No Action Alternative, in which no AOAs would be identified in Federal waters offshore of the Gulf of Mexico.

Sarasota and Manatee counties, and their respective municipalities, have devoted considerable time and invested significant resources into regulation and stormwater infrastructure projects that stop urban land-based nutrient pollution at its source. Cities and counties have not been assisted in any appreciable way by Florida's agricultural industries nor the state agencies that should be regulating agricultural pollution. A point in fact: According to the Basin Management Action Plans (BMAPs) developed by the Florida Department of Environmental Protection (FDEP), more than two-thirds of the nitrogen loading to impaired Outstanding Florida Springs (our state's "canaries in the coal mine") is a result of agriculture activities, more than septic tanks, wastewater treatment plants, and urban and sports fertilizer combined.

As such, NOAA's activist role in promoting industrial-scale offshore finfish aquaculture in the Gulf of Mexico, yet another source of agricultural production that would introduce nutrient pollution into our gulf waters, is anathema to not only common sense but all of the science that connects the abundance of nutrient pollution to the fueling and sustaining of harmful algal blooms in the Gulf of Mexico. The fact that NOAA would promote the introduction of more nutrient pollution directly into gulf waters is beyond our understanding. We recommend the No Action Alternative.

The Sarasota Bay and Tampa Bay region experiences are a warning signal that must be acknowledged and addressed by NOAA. NOAA must not be a willing party to increasing the frequency, intensity, or duration of harmful and nuisance algal blooms in the Gulf of Mexico. We strongly urge NOAA to refrain from identifying any Federal waters offshore in the Gulf of Mexico as Aquaculture Opportunity Areas.

Sincerely,

Gayle Reynolds
Conservation Committee Chair
Manatee-Sarasota Group of the Sierra Club
https://www.sierraclub.org/florida/manatee-sarasota
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941-587-9797

Attachments

Manatee-Sarasota Group_Sierra Club FL_Comments_Gulf of Mexico Aquaculture Opportunity Areas_07 31 22

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0113
Comment from Surprise, Thomas

Submitter Information

Name: Thomas Surprise
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Siesta Key, FL, 34242
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Phone: 9412667397

General Comment

In the July 30th, 2022 edition of the Sarasota Herald Tribune, an article entitled "No-swim Advisories Posted" The information was regarding SEVEN beaches along the Gulf Coast of Florida.

In the article, Tom Higginbotham, DOH-Sarasota Environmental Administrator was quoted. "When these bacteria are found at the high levels in recreational waters, there is a risk that some people may become ill. People, especially those who are very young, elderly or who have a weak immune system, that swallows water while swimming can get stomach or intestinal illnesses. If water contacts a cut or sore, people can get infections or rashes."
Mr. Higginbotham continues, "In addition, you should not eat shell-fish such as crabs and shrimp collected in the immediate area of any beach with a no-swim advisory in place. Fish caught live and healthy can be eaten if filleted."

If these problems exist, prior to the construction of fish farm experiments, E-1. E-3. and E-4, what will happen once the construction and operation trash and foreign infection, from the fish is added?

The fish farm experiments will be detrimental to the residents and tourist health as well as the marine life in the Gulf. These experiments need to be stopped before they are started!

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0114
Comment from Wilson, Betty

Submitter Information

Name: Betty Wilson
Address:
Pensacola, FL, 32503
Phone: 850 380 2950

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who

support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0115
Comment from Gray, Veleka

Submitter Information

Name: Veleka Gray
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General Comment

Find a different way

PUBLIC SUBMISSION

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Tracking No. l6a-mj7l-9fp5
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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0116
Comment from MMC

Submitter Information

Email: vcornish@mmc.gov
Government Agency Type: Federal
Government Agency: MMC

General Comment

Please see attached comments submitted by the Marine Mammal Commission.

Attachments

22-08-01 Blacklock NMFS NOI to prepare PEIS for AOAs in GoM

MARINE MAMMAL COMMISSION

1 August 2021

Ms. Danielle Blacklock, Director
Office of Aquaculture
National Marine Fisheries Service
1315 East West Highway, 12th Floor
Silver Spring, Maryland 20910

Re: NOAA–NMFS–2022–0044

Dear Ms. Blacklock:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service's (NMFS) 1 June 2022 Notice of Intent to prepare a Programmatic Environmental Impact Statement for Aquaculture Opportunity Areas (AOAs) in the Gulf of Mexico. The Commission previously submitted comments on the Request for Information regarding the identification of AOAs in the Gulf of Mexico, California, and nationwide.[1]

The Rice's whale (formerly known as the Gulf of Mexico Bryde's whale; 86 Fed. Reg. 47022) is found primarily in the eastern Gulf of Mexico, in waters from 100 to 400 m deep (Rosel et al. 2016). With an estimated total species population size of only around 50 individuals (Hayes et al. 2021), the Rice's whale is depleted under the Marine Mammal Protection Act and was listed as endangered under the Endangered Species Act in 2019 (84 Fed. Reg. 15446). As noted in the Commission's previous comments, Rice's whales, like other large whales, are vulnerable to vessel strikes, entanglement in active and derelict fishing gear, and disturbance from sound generated by ships and various aspects of energy exploration and development (NMFS 2021). The construction and maintenance of aquaculture facilities in Rice's whale habitat could create additional problems for the species, such as displacement by aquaculture structures, degradation of water quality, enhancement of harmful algal blooms, and greater exposure to marine debris. The available information is inadequate for predicting with any confidence the outcomes of direct or indirect interactions between Rice's whales and aquaculture operations, but even one fatality would be detrimental to the population.

The Commission is relieved to note that the options for AOAs in the Gulf of Mexico, as identified in the Aquaculture Opportunity Atlas for the Gulf of Mexico (Riley et al. 2021), do not overlap with either the Rice's whale's core distribution area in the eastern Gulf or habitat suitable for

[1] See the Commission's 22 December 2020 letter.

Rice's whales in the central and western Gulf. The options for AOAs also do not overlap with the distribution area of two other marine mammals listed under the Endangered Species Act that occur in the Gulf of Mexico — sperm whales and the Florida stock of West Indian manatees.

However, the aquaculture sites identified in the Atlas overlap with habitat of other marine mammal species, such as common bottlenose dolphins and Atlantic spotted dolphins. Dolphins can become entangled in netting used for aquaculture enclosures, and in the anchor lines and buoy lines associated with aquaculture gear. Dolphins are often attracted by the foraging opportunities represented by certain types of fish or shellfish farms (Barrett et al. 2019), and this increases the potential for entanglement in lines and netting, as well as the risk to dolphins of being struck or disturbed by vessels (Methion and López 2019). Attempts by dolphins to forage on farmed fish or shellfish can also provoke aquaculture operators to use harmful or even fatal methods to keep the animals away from their facilities. The illegal use of explosives and guns to deter dolphins from commercial and recreational fishing vessels is well documented in the Gulf of Mexico (Vail et al. 2016). The attraction of dolphins to aquaculture operations can result in damage to aquaculture gear, loss of farmed fish or shellfish, and harm to the dolphins involved. The Commission recommends that NMFS draw on lessons learned from dolphin interactions with commercial and recreational fishermen in the Gulf of Mexico, and from marine mammal interactions with aquaculture operations elsewhere, to develop strong and effective non-lethal measures to prevent dolphins from interacting with aquaculture gear, whether incidentally or intentionally. This might involve limiting the use of loose, unattended, or unnecessary lines to reduce the risk of entanglement, as well as the use of safe and effective deterrents to prevent foraging by dolphins on farmed fish or shellfish. The Commission further recommends that NMFS implement, from the outset of aquaculture site development, a comprehensive monitoring program to document interactions between marine mammals and aquaculture operations.

The Commission appreciates the opportunity to provide comments on AOAs being considered for the Gulf of Mexico. Please contact me if you have questions about the Commission's recommendations or comments.

Sincerely,

Peter O. Thomas, Ph.D.,
Executive Director

cc: Laura K. Engleby, Chief, Marine Mammal Branch, NMFS, Southeast Regional Office
Jessica R. Powell, Biologist, NMFS, Southeast Regional Office

References

Barrett, L.T., S.E. Swearer, and T. Dempster. 2019. Impacts of marine and freshwater aquaculture on wildlife: a global meta-analysis. Reviews in Aquaculture 11:1022–1044.

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0117
Comment from Mandell, Risa

Submitter Information

Name: Risa Mandell
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Ambler, PA, 19002-3867
Email: rmm0535@gmail.com

General Comment

Today, August 1st is Respect for Fish Day. Fish farms subject fishes to unnatural, stressful conditions which make them vulnerable to parasites and diseases which can be transmitted to wild fishes. The facilities discharge concentrated pollutants into the surrounding waters. Fish farms also attract and endanger wildlife, and escaped fishes compete with them for resources. Already, Ocean Era is seeking a permit to raise tens of thousands of Almaco Jacks off of Sarasota, Fl. It is estimated that 20,000 of these fishes would produce 80,000 pounds of waste, potentially including antibiotics and other chemicals. The Gulf of Mexico continues suffering from devastating red tides, with massive marine animal die-offs, and fish farms are bound to exacerbate them. Fish farms subject fishes to unnatural, stressful conditions which make them vulnerable to parasites and diseases which can be transmitted to wild fishes. The facilities discharge concentrated pollutants into the surrounding waters. Fish farms also attract and endanger wildlife, and escaped fishes compete with them for resources. Ocean Era is seeking a permit to raise tens of thousands of Almaco Jacks off of Sarasota, Florida. It is estimated that 20,000 of these fishes would produce 80,000 pounds of waste, potentially including antibiotics and other chemicals. The Gulf of Mexico continues suffering from devastating red tide
Instead of facilitating the cruel exploitation of yet more animals, the government should be promoting healthful, humanely obtained and environmentally sustainable plant-derived foods. I am strongly opposed to allowing fish farms in the Gulf of Mexico or anywhere. They are subjects in their own lives. Let them swim freely.

PUBLIC SUBMISSION

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0118
Comment from WWaleski , Mel

Submitter Information

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CHARLOTTESVILLE, VA, 22903
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Phone: 2152054751

General Comment

GLOBAL PANDEMICS ARE HAPPENING BECAUSE OF THE WAY HUMANS TREAT ANIMALS/FISH FOR FOOD. PLEASE CONSIDER BEING CRUELTY FREE FOR A BETTER FUTURE!!

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0119
Comment from Horn, Jennifer

Submitter Information

Name: Jennifer Horn
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General Comment

I am retired from teaching Biology for our local school system in rural central Virginia, Rather than allow "factory farming" of fish (aquaculture) in the Gulf of Mexico (or elsewhere) and all the pollution and ecosystem disruption that would cause, I would like our federal government to please spend more resources and effort promoting more environmentally sustainable, humanely-obtained foods derived from PLANTS. Thank you for the work that you all do, and thank you for listening to the wishes of the public. With Warm Regards.....

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0120
Comment from Parker-Rollins, Lesley

Submitter Information

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General Comment

No to Factory Fish Farms!

PUBLIC SUBMISSION

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0121
Comment from zurbrick, patricia

Submitter Information

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Phone: 352-356-7100

General Comment

There has been substantial data on the effects of aquaculture in the Gulf of Mexico but I fail to see any reference to the gear type "spear-fishing". This type of harvest gear is used frequently throughout the Gulf but especially in the Florida region. Before this issue of aquaculture continues a study of impacts on these fishers who harvest spearfishing need to be done.

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Docket: NOAA-NMFS-2022-0044
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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0122
Comment from Franklin, Paula

Submitter Information

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Fresh Meadows, NY, 11365
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Phone: 7189698324

General Comment

What we do the animals we do to ourselves. You people have kids? Shame on you. Do you know what's going on?

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0123
Comment from Green, Julie

Submitter Information

Name: Julie Green
Address:
Pensacola, FL, 32507
Email: juliemartin.mtbc@gmail.com

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who

support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0124
Comment from Animal Welfare Institute

Submitter Information

Email: kate.oconnell@balaena.org
Organization: Animal Welfare Institute

General Comment

See attached file(s)

Attachments

AWI comments on Aquaculture Gulf of Mexico PEIS Aug 2022

Animal Welfare Institute
900 Pennsylvania Avenue, SE, Washington, DC 20003
awionline.org phone: (202) 337-2332 fax: (202) 446-2131

August 1, 2022

Mr. Andrew Richard
Regional Aquaculture Coordinator
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Submitted electronically via the Federal Register e-rulemaking portal:
https://www.regulations.gov/docket/NOAA-NMFS-2022-0044

Re: Notice of intent to prepare a programmatic environmental impact statement (PEIS) to evaluate alternatives for identifying Aquaculture Opportunity Areas (AOAs) in Federal waters of the Gulf of Mexico, 87 Fed. Reg. 33,124 (June 1, 2022), Regulations Docket NOAA-NMFS-2022-0044

Dear Mr. Richard:

On behalf of the Animal Welfare Institute (AWI) and its more than 220,000 members and constituents, we are submitting comments on the notice of intent to prepare a programmatic environmental impact statement (PEIS) to evaluate alternatives for identifying Aquaculture Opportunity Areas (AOAs) in Federal waters of the Gulf of Mexico.

With regard to the placement of aquaculture operations, AWI contends that the siting of any AOA must avoid areas where marine mammals are known to frequent and could potentially be disturbed and/or bycaught. This assertion is consistent with comments made by the Marine Mammal Commission (MMC), which has stated that as National Marine Fisheries Service (NMFS) and other agencies move forward with plans for expanding aquaculture in U.S. waters, siting and construction requirements that consider and minimize impacts on marine mammals and that reduce the need for deterrence are necessary.[1] Similar concerns have been acknowledged by NMFS, which has stressed the importance of measures such as spatial planning

[1] Letter from Dr. Peter Thomas, Director of the Marine Mammal Commission to Dr. Shannon Bettridge, Chief of Marine Mammal and Sea Turtle Conservation, Division Office of Protected Resources National Marine Fisheries Service regarding proposed rule (85 Fed. Reg. 53763) to implement section 101(a)(4)(A) and (B) of the Marine Mammal Protection Act (the MMPA), authorizing deterrence of marine mammals in certain situations. Letter dated 28 October 2020.

to inform the siting of aquaculture projects in an effort to "help avoid or resolve potential conflicts as the marine aquaculture industry grows."[2]

Background

While AWI is concerned about the potential impacts AOA sitings may have on any marine species in the Gulf of Mexico, we are particularly troubled by the potential threats posed to the Rice's whale (*Balaenoptera ricei)*, which the International Union for the Conservation of Nature (IUCN) has listed as Critically Endangered.[3] The species is one of the most endangered marine mammal species worldwide, and faces a high risk of extinction due to its very small population size and limited distribution in the highly industrialized Gulf.[4] The International Whaling Commission's Scientific Committee (IWC SC) recently reiterated its serious concern about Rice's whales, given that the population is isolated; the Committee had previously expressed serious concern about this separate and distinct population due to its low numbers.[5]

In 2021, the Rice's whale was recognized as a new species, evolutionarily distinct from the Bryde's whale, of which it had previously been considered a sub-population. Rice's whale is the only year-round resident baleen whale in the northern Gulf of Mexico. At an estimated population size of only 51 animals, it is one of the world's most endangered baleen whales. Rice's whales are found primarily in depths of water between 100 and 500 meters in the northeastern Gulf of Mexico.[6] The Deep Water Horizon oil spill proved devastating for Rice's whales. Forty-eight percent of the Rice's whale habitat was affected, an estimated 22 percent of reproductive females experienced reproductive failure, and 18 percent of the population likely suffered adverse health effects due to the spill.[7] It has been estimated that it will take 69 years for the population to recover from these losses.[8]

While most sightings occur in the De Soto Canyon area, there has also been a confirmed sighting and acoustic detections of Rice's whales by NMFS scientists in the western Gulf of Mexico. There is some uncertainty as to whether all whales remain within in the De Soto Canyon area year-round. If whales shift out of this region into more unprotected areas, this movement could

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[2] Price, C.S., E. Keane, D. Morin, C. Vaccaro, D. Bean, and J.A. Morris, Jr. (2016) Protected Species & Longline Mussel Aquaculture Interactions. NOAA Technical Memorandum NOS NCCOS 211. 85 pp.

[3] Rosel, P., Corkeron, P. & Soldevilla, M (2022) *Balaenoptera ricei*. *The IUCN Red List of Threatened Species* 2022: e.T215823373A208496244. https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T215823373A208496244.en. Accessed on 24 July 2022

[4] Soldevilla, M.S, Debich, A.J, Garrison, L.P, Hildebrand, J.A. and Wiggins, S.M. (2022) Rice's whales in the northwestern Gulf of Mexico: call variation and occurrence beyond the known core habitat. Endang Species Res 48:155-174. https://doi.org/10.3354/esr01196

[5] International Whaling Commission (2022) Report of the Scientific Committee (SC68D). International Whaling Commission, Cambridge UK, 2022.

[6] NOAA. Trophic Interactions and Habitat Requirements of Gulf of Mexico Rice's Whales. Last update March 1,2022. https://www.fisheries.noaa.gov/southeast/endangered-species-conservation/trophic-interactions-and-habitat-requirements-gulf-mexico

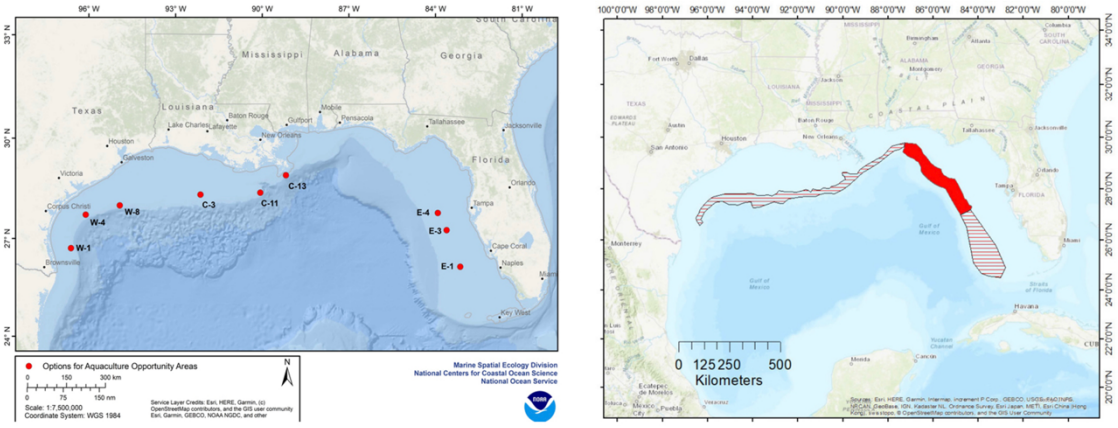
[7] Rosel, P. E., P. Corkeron, L. Engleby, D. Epperson, K. D. Mullin, M. S. Soldevilla, and B. L. Taylor. 2016. Status Review of Bryde's Whales (Balaenoptera edeni) in the Gulf of Mexico under the Endangered Species Act. NOAA Technical Memorandum NMFS-SEFSC-692.

[8] NOAA. Trophic Interactions.

increase risks to the species.[9] Historical records suggest that Rice's whales may once have occurred over a broader area of the GOM than their currently known core habitat, including west of the Mississippi River delta.[10]

There were two sightings of unidentified large baleen whales (recorded as *Balaenoptera* sp. or Bryde's/sei whale) in 1992 in the western GOM during a systematic survey effort and, more recently, a NOAA survey reported observation of a Rice's whale in the western GOM in 2017. There were five potential sightings of Rice's whales by protected species observers (PSOs) aboard industry geophysical survey vessels west of New Orleans from 2010-2014. In addition, a NOAA Technical Memo regarding the incidental take of marine mammal species in the GOM related to oil and gas activities identified sporadic year-round recordings of Rice's whale calls being heard south of Louisiana, within approximately the same depth range between 2016 and 2017. This memo acknowledged that while rare, Rice's whales may be found outside of the core habitat area.[11]

It is extremely likely that aquaculture activities would directly and/or indirectly affect Rice's whales and their habitat. Because the proposed facilities would be located in or near species' migration routes or in their habitat (see maps below), NOAA must analyze the cumulative effects that various AOA designations could have on marine species for the full term of any possible AOAs and operations included therein.



The map on the left shows the proposed AOA locations in the Gulf of Mexico, while the figure on the right indicates primary (solid red) and full (hatched red) area for the species, based on previously documented sightings.

[9] Rosel, Corkeron and Soldevilla (2022).
[10] Soldevilla et al. (2022).
[11] NOAA (2022)Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Geophysical Surveys Related to Oil and Gas Activities in the Gulf of Mexico: A Notice by the National Oceanic and Atmospheric Administration on 07/20/2022 https://www.federalregister.gov/documents/2022/07/20/2022-15476/taking-and-importing-marine-mammals-taking-marine-mammals-incidental-to-geophysical-surveys-related

A Rice's whale stranded live, then later died, in the Everglades National Park in 2019. During the necropsy, a small piece of hard plastic (6.6 x 6.2 x 0.2 cm) and accompanying ulcerations were found in the stomach and determined to be the likely the cause of death, which NOAA has suggested indicates that marine debris poses a threat to this species.[12] A 2019 review of marine litter and aquaculture gear acknowledges that plastic is widely used in aquaculture system components; problems caused by marine litter and aquaculture gear include ingestion by animals, entrapment and entanglement of animals, physical impacts on the benthos, disruption and loss of coastal areas, and potential human exposure to micro-plastics and chemicals through the food chain.[13]

Due in large part to the fact that no aquaculture facilities had yet been contemplated in the GOM at the time, NOAA did not consider aquaculture to be a major threat to the species when it undertook a status review for the Rice's whale in 2016. This is no longer true, as noted in its 2020 Recovery Plan. Given the selection of the GOM as an Aquaculture Opportunity Area, NOAA states that depending on the location and characteristics of aquaculture facilities, aquaculture "may be a major threat to this species."[14]

We appreciate that NMFS included in the Atlas a table of federal statutes applicable to all aquaculture opportunity area options (Table 3.10). To this end, in consideration of any possible "takes" of protected species under the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA), NOAA should plan to require the aquaculture operators to go through all relevant procedures and obtain all relevant permits, and spell out such requirements in the draft PEIS. [15]

Marine mammals such as the Rice's whale are exposed to a broad and growing range of human-induced mortality and stressors such as entanglement in fishing gear, ship strikes, noise, prey depletion by fisheries, disease, pollutants and toxins and "other human activities that contribute to global climate change." These threats are compounded by indirect effects, which, as noted by researchers, can be as strong as or stronger than direct effects; in all but the simplest ecosystems, "the number of potential indirect effects greatly exceeds the number of potential direct effects."[16]

Given the location of commercial shipping traffic in Rice's whale habitat, ship strikes also pose a threat to this population, particularly to the extent that the whales spend time near the surface,

[12] NOAA (2020) Rice's Whale ESA Recovery Outline. https://media.fisheries.noaa.gov/2021-08/RIWH-Recovery-Outline-Final-508-Compliant.pdf.pdf

[13] Huntington, T (2019) Marine Litter and Aquaculture Gear – White Paper. Report produced by Poseidon Aquatic Resources Management Ltd for the Aquaculture Stewardship Council. 20 pp plus appendices. https://www.asc-aqua.org/wp-content/uploads/2019/11/ASC_Marine-Litter-and-Aquaculture-Gear-November-2019.pdf

[14] NOAA 2020 Recovery Plan.

[15] We note that the Atlas states at p. 308 that "compliance may include ESA and EFH consultations, MMPA authorizations, and consultations regarding impacts on cultural resources."

[16] Estes, J.A., R.S. Steneck, and D.R. Lindberg (2013) Exploring the consequences of species interactions through the assembly and disassembly of food webs: A Pacific/Atlantic comparison. Bulletin of Marine Science 89:11-29

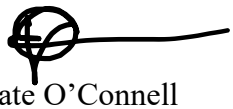
especially at night, as researchers have observed.[17] Offshore aquaculture facilities, if sited anywhere in the wider range of Rice's whale habitat usage, will compound this risk. Also, if existing science is correct in suggesting that bottom or near-bottom feeding is a normal feeding strategy for these whales, Rice's whales are potentially at risk of serious injury or death due to entanglement in offshore pen mooring systems; NOAA has already recognized that there is potential for Rice's whale entanglement in bottom longline gear.[18]

Closing

Although we have focused herein on our concerns for the critically endangered Rice's whale, AWI is also concerned that the Atlas excluded an analysis of all MMPA and ESA listed species that could be affected by the creation of AOAs in the GOM. The review chose to focus on only the nineteen marine species in the GOM that are listed as threatened and endangered species; these include sea turtles, coral, fish, two species of whales, one species of shark, and the giant manta ray.[19] The authors of the Atlas acknowledge that as a result, "a number of protected species, especially marine mammals, were excluded from this analysis. Those species will need to be considered during the PEIS stage to determine overall suitability of potential AOA site." We further note that the spatial planning process outlined in the Atlas does not consider gear-specific aquaculture or other secondary interactions with protected species, a major oversight that NMFS must also address during the PEIS.

Given the extreme vulnerability of the Rice's whale, and the high risk of extinction that the species faces, we call on NMFS to refrain from approving any of the sites proposed as offshore AOAs in the GOM. Thank you for your consideration of our concerns.

Sincerely,



Kate O'Connell
Marine Animal Consultant

Georgia Hancock
Acting Co-Director and Counsel, Marine Program

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[17] Soldevilla MS, Hildebrand JA, Frasier KE, Aichinger Dias L and others (2017) Spatial distribution and dive behavior of Gulf of Mexico Bryde's whales: potential risk of vessel strikes and fisheries interactions. Endang Species Res 32:533-550. https://doi.org/10.3354/esr00834]

[18] Id.

[19] Riley, K.L., Wickliffe, L.C., Jossart, J.A., MacKay, J.K., Randall, A.L., Bath, G.E., Balling, M.B., Jensen, B.M., Morris Jr., J.A. (2021) An Aquaculture Opportunity Area Atlas for the U.S. Gulf of Mexico. NOAA Technical Memorandum NOS NCCOS 299. Beaufort, NC. 545 pp., at 54.

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0125
Comment from Dyer, Naomi

Submitter Information

Name: Naomi Dyer
Address:
Gaithersburg, MD, 20878
Email: naomigd@hotmail.com

General Comment

I am writing to oppose the addition of fish farms in the Gulf of Mexico.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0126
Comment from Kenner, Kate

Submitter Information

Name: Kate Kenner
Address:
Guilford, VT, 05301
Email: faunesiegel@gmail.com

General Comment

Fish farms are unnatural and thus expose fish to stressful conditions which in turn to stress and parasites and diseases they would not be vulnerable to in the wild. Those same problems can be transmitted to wild fish. Unnatural conditions always have an impact on surrounding environments and wildlife.

The 80,000 sounds of wast will have extremely detrimental effects on other fish and the ocean. It is well known that oceans and marine life are already under threat from the activities of people and the proposed fish farm will only make things even worse. We, our waters, and fish can not afford to have this happen. Instead of allowing fish farms which are invasive and cause harm to farmed and wild beings more efforts should be put into sustainable plant based foods. Fish farms which in the end serve those making financial gains are not a sound idea. Sick fish mean sick sea food. Please say no to this proposal and look to more sustainable ideas.
Thank you.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0127
Comment from American Waterways Operators

Submitter Information

Email: btrammell@americanwaterways.com
Organization: American Waterways Operators

General Comment

See attached file(s)

Attachments

AWO Gulf of Mexico Aquaculture NOI Comments

The American Waterways Operators

47 Patricia Drive
Covington, LA 70433

PHONE: 985.222.5230
EMAIL: mwright@americanwaterways.com

Mark A. Wright
Vice President – Southern Region

August 1, 2022

Mr. Andrew Richard
Regional Aquaculture Coordinator
Southeast Regional Office
National Marine Fisheries Service
263 13th Avenue South
St. Petersburg, FL 33701

Re: Notice of Intent to Prepare Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico (Docket No. NOAA-NMFS-2022-0044)

Dear Mr. Richard:

The American Waterways Operators (AWO) is the tugboat, towboat and barge industry's advocate, resource, and united voice for safe, sustainable, and efficient transportation on America's waterways, oceans, and coasts. Our industry is the largest segment of the nation's 40,000-vessel domestic maritime fleet and moves 665 million tons of cargo each year safely and efficiently. On behalf of AWO's more than 300 member companies, we appreciate the opportunity to comment on the Notice of Intent to prepare a programmatic environmental impact statement (PEIS) for identification of aquaculture opportunity areas in federal waters of the Gulf of Mexico.

As our shared sea spaces grow more crowded, AWO members remain committed to leading the maritime industry in safety, security, and environmental stewardship. We actively work with government partners to advance these shared objectives, and AWO members are committed to the goal of zero harm from our industry's operations – to human life, to the environment, and to property. We ask that the National Marine Fisheries Service (NMFS) and the National Oceanic and Atmospheric Administration (NOAA) work alongside the other federal agencies overseeing the various uses of our ocean resources, such as the Bureau of Ocean Energy Management (BOEM) and the U.S. Coast Guard, to ensure that different initiatives can coexist safely and productively.

To preserve navigation safety, NOAA and NMFS should coordinate with the U.S. Coast Guard in seeking detailed information from the maritime industry about vessel traffic patterns before establishing aquaculture areas that may conflict with traditional traffic routes. Gulf of Mexico safety fairways were established in the 1960s to protect navigation routes; however, those routes are no longer adequate for modern needs. Vessels have increased in size and traffic patterns have changed since the fairways were established. When determining which areas are suitable for aquaculture, you should keep in mind that the existing safety fairways do not necessarily provide what is needed for navigation safety today.

Offshore wind will further impact a Gulf of Mexico already filled with oil and gas structures. The Biden Administration has set ambitious targets for offshore renewable energy generation this decade. To meet this goal, BOEM is examining outer continental shelf waters in the central and western parts of the Gulf of Mexico. When determining which areas are suitable for aquaculture, NOAA and NMFS must consider potential conflicts with offshore wind energy and how this will further impact safe navigation. The seascape will change dramatically in the coming decade and restricting the flow of safe and efficient tug and barge traffic without the establishment of adequate navigation lanes will imperil human life, risk environmental harm, reduce the carbon efficiency of the transportation sector, and harm the U.S. economy.

NOAA and NMFS should communicate and collaborate with the Coast Guard, BOEM, and the navigation industry to determine how additional uses of the Gulf of Mexico will impact other uses. New uses must be carefully planned to safely coexist with the existing maritime transportation system and navigation routes. We must work together to ensure the safety and productivity of shared marine resources.

Thank you for the opportunity to comment on this notice. We would be pleased to answer any questions or provide further information as you see fit. We look forward to continued engagement on this issue.

Sincerely,

Mark A. Wright
Vice President – Southern Region

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0128
Comment from United Poultry Concerns

Submitter Information

Email: karen@upc-online.org
Organization: United Poultry Concerns

General Comment

I oppose opening up the Gulf of Mexico for a massive fish-farming enterprise. Fish-farming harms the natural environment and is completely cruel to the fish. Fish farming adds more toxic chemicals and antibiotics and toxins to land and water and is harmful to all residents and habitats in the region where the fish farms are located. Everything I am saying here is well-known to you. So the question is, do you care? Will you prevent this proposed fish-farming business from destroying yet another part of our planet? Will you prohibit the enterprise from being established in the Federal Waters of the Gulf of Mexico? I urge you to say NO to fish-farming in the Gulf of Mexico. Thank you for your consideration.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0129
Comment from Dilly’s Fish Co.,LLC

Submitter Information

Email: tdillingham34@gmail.com
Organization: Dilly’s Fish Co.,LLC

General Comment

South west Florida has ABSOLUTELY NO interest in aquacultures in our offshore waters. This comes from not only our Commercial fishing fleet but recreational and charter alike. And I have 5 main reasons for believing this;
1- red tide events regularly in southwest florida waters. Which would kill every fish they are trying to farm.
2- increased environmental impact due to the Larges cages, and the discards from raising 20,000 almaco jacks or cobia in a confined area. These are pelagic fish that migrate throughout the year and need room to roam.
3- navigational issues with the cages and equipment necessary to run such an operation. Including damage from regular hurricanes and tropical storms which are prevalent in our waters. Not too mention what we are suggesting is blocking off 500 to 2000 acres of the American public’s fishing waters for aquaculture and basically gifting those waters to private big business. NOAA should not have the right to do that without the consent of the American public. And I do not know a single American in southwest florida who supports this non sense.
4- This is a direct slap in the face to each and every Commercial fisherman that risks their lives to provide our American public with fresh sustainable locally caught wild seafood.
5- disease within the cages population and risk of addtl disease to the fish in surrounding waters of the aquaculture or if there is damage to the cages and the non wild fish escape.

Furthermore, As a commercial spear fisherman and as a dealer who represents 5 other commercial spear boats we would like to request that the Proposed Environmental Impact Statement (PEIS) include commercial spear fishing data. I believe to this point only commercial reef fishing data being considered

is for bandits and longlines. (I don't think youve intentionally excluded spear, I'm assuming y'all probably just didn't think about it given that we are a small user group).
So, please consider including a request to include analysis of commercial spear fishing data. And please realize that the negative impacts far out weigh the benefits of giving away our gulf waters to big business. If the American public needs more fish to eat, loosen up some of our commercial regulations and let us do our jobs the environmentally friendly way, And let us catch them. Thanks and have a great day.

Sincerely,

Tim Dillingham
Dillys Fish Co., LLC
239-398-7731

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0130
Comment from Richards, Jennie

Submitter Information

Name: Jennie Richards
Address:
Walnut Creek, CA, 94597
Email: jennierichards1@gmail.com
Phone: 415-505-0064

General Comment

The Gulf of Mexico continues suffering from devastating red tides, with massive marine animal die-offs, and fish farms are bound to exacerbate them. Please DO NOT build a fish farm in the Gulf of Mexico!

Fish farms are polluting, are unnatural, and subject fishes to stressful conditions which make them vulnerable to parasites and diseases which can be transmitted to wild fishes. The facilities discharge concentrated pollutants into the surrounding waters. Fish farms also attract and endanger wildlife, and escaped fishes compete with them for resources.

Already, Ocean Era is seeking a permit to raise tens of thousands of Almaco Jacks off of Sarasota, Fl. It is estimated that 20,000 of these fishes would produce 80,000 pounds of waste, potentially including antibiotics and other chemicals.

Instead of facilitating the cruel exploitation of yet more animals, the government should be promoting healthful, humanely obtained and environmentally sustainable plant-derived foods. Please let the government know you are opposed to allowing fish farms in the Gulf of Mexico.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0131
Comment from Wilkinson, Peter

Submitter Information

Name: Peter Wilkinson
Address:
Belfast, ME, 04915
Email: closeshave@juno.com

General Comment

Hello. I am writing to voice my opposition to the establishment and use of factory fish farms in the gulf of Mexico, and anywhere else on this fragile and beautiful planet. They are a gross and cruel method of raising living creatures in overcrowded and filthy captivity, and I urge you and other regulators to reject this project proposal. Thank you.
Peter Wilkinson,
Belfast, Maine

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0132
Comment from Moss, Paul

Submitter Information

Name: Paul Moss
Address:
MN,

General Comment

I am writing to oppose the federal government's proposal to allow factory fish farms off of the Gulf of Mexico.

Fish farms subject fishes to unnatural, stressful conditions which make them vulnerable to parasites and diseases which can be transmitted to wild fishes. The facilities discharge concentrated pollutants into the surrounding waters. Fish farms also attract and endanger wildlife, and escaped fishes compete with them for resources.

Farmed fish produce large quantities of waste, potentially including antibiotics and other chemicals. The Gulf of Mexico continues suffering from devastating red tides, with massive marine animal die-offs, and fish farms are bound to exacerbate them.

Instead of facilitating the cruel exploitation of yet more animals, the government should be promoting healthful, humanely obtained and environmentally sustainable plant-derived foods.

Again, I am strongly opposed to allowing fish farms in the Gulf of Mexico.

Thank you for your consideration of these comments.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0133
Comment from Nelson, William

Submitter Information

Name: William Nelson
Address:
Belfast, ME, 04915
Email: wmnelson@midmaine.com
Phone: 12073389539

General Comment

From what I have heard and read, fish farms such as the one(s) proposed are not sustainable for the long term. Pleae don't grant them permits.

PUBLIC SUBMISSION

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0134
Comment from Wright, Devin

Submitter Information

Name: Devin Wright
Address: 70124
Email: devinwright04@gmail.com

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the

pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by “high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment.” Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0135
Comment from Breitman, Patti

Submitter Information

Name: Patti Breitman
Address:
Fairfax, CA, 94930
Email: eatplants@gmail.com
Phone: 4156863125

General Comment

Please do not allow fish farms off the Gulf of Mexico. Pollution and cruelty are two of many problems with intensive farming of fishes.

PUBLIC SUBMISSION

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0136
Comment from DECF, Democratic Environmental Caucus of Florida

Submitter Information

Email: Russeveconn@gmail.com
Organization: DECF, Democratic Environmental Caucus of Florida

General Comment

DECF, the organization of the Democratic Environmental Caucus of Florida, supports Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore in the Gulf of Mexico. Previous research by the DECF Science Officer Richard Whitman on the subject of fish farming in the Gulf is relevant to our organization's opposition to fish farming and the proposed fin fish farming. See the following explanation of our position.

Disease

The literature on maricultural diseases is voluminous and beyond the scope of these comments. Examples of pathogens associated with mariculture include Novirhabdovirus, Vibrio, Saprolegnia, and Caligusascommon viral, bacterial, fungal, and invertebrate diseases, respectively. Fish are particularly at risk for disease in congested marine culture conditions such as those described in the permit request. In addition to crowding and cage stress, other stressors include contaminants, nutritional deficiencies, harmful algal blooms, and ambient water quality issues. Rapid changes in ambient conditions may further weaken fish resistance to diseases. The permittee needs to address fish acclimation and fish health risks due to cage depth adjustment, especially in anticipation of a storm or degradation of surface water quality.

The permittee states that '…Pathogen and parasite transmission from the VE Project is unlikely due to the following protocols which will be implemented.'. In contrast, Dr. Kevan Main, program manager for Mote's Aquaculture Research stated 'The main bottlenecks associated with commercial production of Almacojack include susceptibility to parasitic and bacterial pathogens, and an inconsistent supply of juveniles resulting from poor spawn quality and low hatchery survival,' (Q. Todd, Hatchery International,

Oct. 27, 2017). In juvenile rearing experiments, she reported the need to treat Almacojack and the co-generers Amberjack (S. dumerili) with Praziqantel for the ectoparasite Neobenedinia. Over 70% of the untreated Amberjack population died from this infection. Other treatments included copper and long term (45 days) hypersalinity(15 ppt.) treatment. (K. Main. 2019. The Status of Greater Amberjack, Seriola dumerili, as an Experimental Species for US Marine Aquaculture. Aquaculture America 2019. New Orleans, LA. Oral presentation.). She and others report common infections encountered in rearing chambers including Neobenedinia spp., parasitic dinoflagellates, marine ich (Cryptocaryon irritans) as well as secondary bacterial and fungal infections. Ambient treatments mentioned would nonetheless be impractical in open seawater. The limited proposed VE cage space and high fish population density (0.35 fish/ft3 or 1.3-1.5 lbs/ft3 at harvest) would favor the rapid spread of parasitic, bacterial, and fungal infections, perhaps also affecting nearby fish communities. With a fish pen mesh area of 1.5x1.5 inch, small marine life from plankton to small vertebrates could easily migrate through pen openings, spreading the infections and acting as disease vectors, exporting disease to surrounding pelagic and benthic communities. Potential public health issues might also arise from subsequent bioconcentration, contamination, tainting and public exposure to drug-resistant microbes.

Anti-microbial resistance

Research has shown that the use of antibiotics in fish farms encourages resistant bacteria communities (termed resistome) in fish guts and in bottom waste and excess food accumulation. Organic laden sands are particularly suitable for pathogen growth (Whitman et al. 2014, Reviews in Environmental Science and Biotechnology; Whitman and Nevers, 2003. Applied and Environmental Microbiology). FDA has approved sulfamide, tetracycline, and thiamphenicol type antibiotics for fish farming. These drugs have been commonly used to combat Vibrio anguillarum, Yersinia ruckeri, Pseudomonas anguilliseptica, and Pseudomonas edwardsielloosi infections in sea farms. Muziasari et al. (2017 Frontier Microbiology), for example, found 28 antibiotic-resistant genes in guts of farmed fish and fish farm sediment from the Black Sea. These genes included sulfonamide (sul1), trimethoprim (dfrA1), tetracycline [tet(32), tetM, tetO, tetW], aminoglycoside (aadA1, aadA2), chloramphenicol (catA1), and efflux-pumps resistance genes (emrB, matA, mefA, msrA). Contaminated waste and feed from VE have the potential to be resuspended into the water column especially during a storm and consequently transported shoreward. Thus, there is a concern about breeding and the introduction of anti-resistant bacteria that might threaten sea life and public health.

Comments above written and compiled by Richard Whitman, M.S., Ph.D. , Science Officer of DECF, Democratic Environmental Caucus of Florida.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0137
Comment from Karandikar, Satish

Submitter Information

Name: Satish Karandikar
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Belle Mead, NJ, 08502
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General Comment

I'm opposed to allowing fish farms in the Gulf of Mexico

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0138
Comment from Humane Investing, LLC.

Submitter Information

Email: brendaveggie@yahoo.com
Organization: Humane Investing, LLC.

General Comment

Instead of facilitating the cruel exploitation of yet more animals, the government should be using OUR hard-earned money to promote healthful, humanely obtained and environmentally sustainable plant-derived foods. We are vehemently opposed to allowing fish farms in the Gulf of Mexico. The Gulf of Mexico continues suffering from devastating red tides, with massive marine animal die-offs, and fish farms are bound to exacerbate them.

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0139
Comment from BioLogical Pest Management, Inc.

Submitter Information

Email: biopestman@gmail.com
Organization: BioLogical Pest Management, Inc.

General Comment

Intensive aqua culture confined animal feeding operations or CAFOs destroy the estuaries or the base that they are located in because of waste feed over fertilizing the waters, pesticides used to control sea lice, antibiotics used to control disease, and feed additives to prevent spoilage of feed which are also toxic to marine organisms. No matter in which country and what is cherry or title situation that salmon and shrimp confined feeding operations are located, they destroy indigenous aquaculture and fishers such as lobstering or other fishing because of the excess amounts of nutrition in the water leading to algae blooms. Whether it is a pen system or cage system or RAS System, excess feed, excess heat and chemicals that are toxic to marine organisms are released. In every situation, no matter where these are located, they caused tremendous damage to the free ecological services that estuaries provide.

There needs to be an organization such as NOAA or other federal agencies that can look at the entire impact of authorities in different states on the same body of water and estimate the potential damage these facilities can do in total. The current way that aquaculture facilities are cited is on a case by case basis done by overwhelmed state regulatory agencies. For example there are at least four pending proposals in the gulf of Maine that an overwhelmed and understaffed DEP is struggling to evaluate. However, no agency or nonprofit NGO is evaluating the entire impact on the gulf of Maine. I am certain there is no agency federal or state that is evaluating the entire impact of aquaculture facilities that are large and intensive in the Gulf of Mexico

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0140
Comment from BioLogical Pest Management, Inc.

Submitter Information

Email: biopestman@gmail.com
Organization: BioLogical Pest Management, Inc.

General Comment

Intensive aqua culture confined animal feeding operations or CAFOs destroy the estuaries or the base that they are located in because of waste feed over fertilizing the waters, pesticides used to control sea lice, antibiotics used to control disease, and feed additives to prevent spoilage of feed which are also toxic to marine organisms. No matter in which country and what is cherry or title situation that salmon and shrimp confined feeding operations are located, they destroy indigenous aquaculture and fishers such as lobstering or other fishing because of the excess amounts of nutrition in the water leading to algae blooms. Whether it is a pen system or cage system or RAS System, excess feed, excess heat and chemicals that are toxic to marine organisms are released. In every situation, no matter where these are located, they caused tremendous damage to the free ecological services that estuaries provide.

There needs to be an organization such as NOAA or other federal agencies that can look at the entire impact of authorities in different states on the same body of water and estimate the potential damage these facilities can do in total. The current way that aquaculture facilities are cited is on a case by case basis done by overwhelmed state regulatory agencies. For example there are at least four pending proposals in the gulf of Maine that an overwhelmed and understaffed DEP is struggling to evaluate. However, no agency or nonprofit NGO is evaluating the entire impact on the gulf of Maine. I am certain there is no agency federal or state that is evaluating the entire impact of aquaculture facilities that are large and intensive in the Gulf of Mexico

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0141
Comment from Bollag, Sascha

Submitter Information

Name: Sascha Bollag
Address:
New Orleans, LA, 70118
Email: sbollag@gmail.com
Phone: 5049137740

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore

fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0142
Comment from Va, Jo

Submitter Information

Name: Jo Va
Address: United States,

General Comment

Please do not support aquaculture not only in the severely abused gulf of mexico but also worldwide. Corporate business needs to be taken down a notch because they are the ones largest entities responsible for climate change. Beyond climate devastation and the immense health hazards that aquaculture WILL cause, fish are living beings as well. They have an experience of life just like humans and every other species on earth.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0143
Comment from Va, Jo

Submitter Information

Name: Jo Va
Address: United States,

General Comment

Please do not support aquaculture not only in the severely abused gulf of mexico but also worldwide. Corporate business needs to be taken down a notch because they are the ones largest entities responsible for climate change. Beyond climate devastation and the immense health hazards that aquaculture WILL cause, fish are living beings as well. They have an experience of life just like humans and every other species on earth.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0144
Comment from Suncoast Sierra Club Group

Submitter Information

Email: bryanb@suncoastsierra.org
Organization: Suncoast Sierra Club Group

General Comment

August 1, 2022

Mr. Andrew J. Strelcheck
Regional Administrator
NMFS Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Submitted via https://regulations.gov

Docket No. NOAA-NMFS-2022-0044

RE: Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Dear Mr. Strelcheck:

Suncoast Sierra Club Group respectfully submits these comments in response to NOAA's "Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings" (Agency/Docket Number RTID: 0648-XB900 RTID.)

Offshore finfish farming in the Gulf of Mexico would result in even more serious negative consequences to regional public health, local economies, quality of life, and natural ecosystems than we already suffer from the introduction of land-based sources of nutrient pollution into gulf waters. Our experience over the last 16 years in Tampa Bay, a region like so many others in the Gulf of Mexico that have suffered intense and prolonged blooms of Karenia brevis and other harmful and nuisance micro and macro algal blooms, dead zones, and the havoc both wreak, makes it clear that the last thing the Gulf of Mexico needs is a new industrial source of nutrient pollution. We support the No Action Alternative, in which no AOAs would be identified in Federal waters offshore of the Gulf of Mexico.

Pinellas County, and it's respective municipalities, have devoted considerable time and invested significant resources into regulation and stormwater infrastructure projects that stop urban land-based nutrient pollution at its source. Cities and counties have not been assisted in any appreciable way by Florida's agricultural industries nor the state agencies that should be regulating agricultural pollution. A point in fact: According to the Basin Management Action Plans (BMAPs) developed by the Florida Department of Environmental Protection (FDEP), more than two-thirds of the nitrogen loading to impaired Outstanding Florida Springs (our state's "canaries in the coal mine") is a result of agriculture activities, more than septic tanks, wastewater treatment plants, and urban and sports fertilizer combined.

As such, NOAA's activist role in promoting industrial-scale offshore finfish aquaculture in the Gulf of Mexico, yet another source of agricultural production that would introduce nutrient pollution into our gulf waters, is anathema to not only common sense but all of the science that connects the abundance of nutrient pollution to the fueling and sustaining of harmful algal blooms in the Gulf of Mexico. The fact that NOAA would promote the introduction of more nutrient pollution directly into gulf waters is beyond our understanding. We recommend the No Action Alternative.

The Tampa Bay region experiences are a warning signal that must be acknowledged and addressed by NOAA. NOAA must not be a willing party to increasing the frequency, intensity, or duration of harmful and nuisance algal blooms in the Gulf of Mexico. We strongly urge NOAA to refrain from identifying any Federal waters offshore in the Gulf of Mexico as Aquaculture Opportunity Areas.

Sincerely,

Bryan Beckman

Executive Committee Chair
Suncoast Group of the Sierra Club
sierraclub.org/florida/suncoast
BryanB@SuncoastSierra.org
224-430-3990

Attachments

Suncoast_Group_Sierra Club FL_Comments_Gulf of Mexico Aquaculture Opportunity Areas_08_01_22

August 1, 2022

Mr. Andrew J. Strelcheck
Regional Administrator
NMFS Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Submitted via https://regulations.gov

Docket No. NOAA-NMFS-2022-0044

RE: Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

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Sincerely,

Bryan Beckman

Executive Committee Chair
Suncoast Group of the Sierra Club
sierraclub.org/florida/suncoast
BryanB@SuncoastSierra.org
224-430-3990

PUBLIC SUBMISSION

As of: 8/31/22, 8:49 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-1eqj-514g
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0145
Comment from Scalfo, Christine

Submitter Information

Name: Christine Scalfo
Address:
Vineland, NJ, 08360
Email: christine@foodforliving.net
Phone: 8566964234

General Comment

Fish farms subject fishes to unnatural, stressful conditions which make them vulnerable to parasites and diseases which can be transmitted to wild fishes. The facilities discharge concentrated pollutants into the surrounding waters. Fish farms also attract and endanger wildlife, and escaped fishes compete with them for resources.

PUBLIC SUBMISSION

As of: 8/31/22, 8:54 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-0wt6-d4j0
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0146
Comment from Vyas, Nakul

Submitter Information

Name: Nakul Vyas
Address:
Troy, OH, 45373
Email: nakul.p.vyas@gmail.com
Phone: 9372166525

General Comment

Please do not permit the establishment of factory fish farms in the Gulf of Mexico. These sites will pollute their surroundings, harm adjacent wildlife, and overcrowd fish in inhumane and restrictive conditions. Lentils and other plant based products are high in protein, healthy, and have lower carbon dioxide emissions on a kilogram of finished product basis.

PUBLIC SUBMISSION

As of: 8/31/22, 9:01 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-0p31-odsj
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0147
Comment from Cobin, Shana

Submitter Information

Name: Shana Cobin
Address:
Foster, RI, 02825
Email: sacobin@yahoo.com

General Comment

I am opposed to allowing fish farms in the Gulf of Mexico. Instead of facilitating the cruel exploitation of yet more animals, the government should be promoting healthful, humanely obtained and environmentally sustainable plant-derived foods.

PUBLIC SUBMISSION

As of: 8/31/22, 1:46 PM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-1wdh-wbc4
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0148
Comment from Goldman, Rochelle

Submitter Information

Name: Rochelle Goldman
Address:
Brooklyn, NY, 11235
Email: rochellegoldman@gmail.com

General Comment

I am against allowing fish farms in the Gulf of Mexico because this is animal cruelty and terrible for the environment. Instead the government should be promoting humane plant based food.

PUBLIC SUBMISSION

As of: 8/31/22, 1:48 PM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-2bpz-b82x
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0149
Comment from Reichard, Lawrence

Submitter Information

Name: Lawrence Reichard
Address:
Belfast, ME, 04915
Email: lreichard@gmail.com
Phone: 415-565-9867

General Comment

I am a freelance journalist in Belfast, Maine. I have been covering the aquaculture industry fro more than four years, and I have seen firsthand the enormous pollution and habitat degradation caused by this industry. Because of this, I urge you in the strongest possible terms to not allow this industry to pollute and degrade the waters and environment of the environmentally fragile and sensitive Gulf of Mexico.

Thank you,

Lawrence Reichard
Belfast, Maine

PUBLIC SUBMISSION

As of: 8/31/22, 1:50 PM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-2sch-ufa0
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0150
Comment from HOWELL, VALERIE

Submitter Information

Name: VALERIE HOWELL
Address:
Miami, FL, 33255
Email: valeriehowell@hotmail.com
Phone: 3056660242

General Comment

As a native Floridian who still lives here, I am quite disturbed that you are considering allowing the factory farming of fish in the Gulf of Mexico. This is a horrible idea. The Gulf has taken a hit many times over the last few decades and we don't need concentrated confined populations of fish added to the waters off the Gulf States. The pollution and the risk of disease spreading to wild populations are two significant reasons it should not be allowed. I want you to protect the environment of the Gulf of Mexico, not allow another activity that will compromise it even further. Please do not allow these Aquaculture Areas to be created. Thank you.

PUBLIC SUBMISSION

As of: 8/31/22, 1:57 PM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-36oz-o70a
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0151
Comment from Sachdev, Sadhna

Submitter Information

Name: Sadhna Sachdev
Address: United States,

General Comment

Fish are sensitive creatures who have been documented to feel and think much like any other animal. Fish in fish farms experience extremely disturbing and distressful conditions, and habitually contract diseases. Fish farms release toxic concentrated pollutants into surrounding waters harming humans and wildlife. Fish farms attract and endanger wildlife. The Gulf of Mexico suffers from deleterious red tides with vast marine animal die-offs and fish farms will make this worse.
Government should not facilitate cruel exploitation of animals but should rather promote beneficial, humanely procured and environmentally sustainable plant-based foods.

PUBLIC SUBMISSION

As of: 9/2/22, 9:24 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-3bnz-r93z
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0152
Comment from Travis, Sky

Submitter Information

Name: Sky Travis
Address: United States,
Email: fractalract@gmail.com

General Comment

I strongly encourage not allowing aquaculture in the Gulf of Mexico, or at least limiting the number of aquaculture operations. Aquaculture has myriad adverse effects on the local environment, including polluting local waters and driving endangered species from their natural environment. Furthermore, it releases far more greenhouse gasses than plant-based agriculture.
Aquaculture may appear an appealing possibility at the moment - it may seem that it will provide jobs, bring more money into the economy, and drive agricultural progress. But these benefits are temporary, whereas the harm it will cause will last forever. In the long run, humans in the area will be harmed from pollution; humans around the world will be harmed by the emitted greenhouse gasses; and countless animals will be harmed through the destruction of their native habitats. There will be no way to stop this harm once permission is given for aquaculture in the region.

PUBLIC SUBMISSION

As of: 9/2/22, 9:26 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-3zou-83s0
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0153
Comment from Zepeda, Melissa

Submitter Information

Name: Melissa Zepeda
Address:
St Petersburg, FL, 33713
Email: iammeatlessru@yahoo.com

General Comment

If the goal is to identify geographic areas with that are suitable for commercial aquaculture, then Sarasota and the FL Gulf coast area of Florida are not it. My mother in law lives in Sarasota and my fiance and I live one county north in Pinellas and none of us support adding an aqua-farm. We are already suffering awful pollution, red tide and dead fish at our beaches as a result of allowing other businesses near our precious Gulf
We cannot keep making the same mistakes over and over again. Stop putting short terms profits for the few ahead of long term disasters for the masses who call the Gulf home. The amount of fish waste and chemicals for these aqua farms will only exacerbate our current water quality issues.

PUBLIC SUBMISSION

As of: 9/2/22, 9:30 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-5lz8-xurt
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0154
Comment from Florida Department of Agriculture and Consumer Services

Submitter Information

Email: portia.sapp@fdacs.gov
Government Agency Type: State
Government Agency: Florida Department of Agriculture and Consumer Services

General Comment

See attached file(s). Florida Department of Agriculture and Consumer Services comment.

Attachments

NOAA-NMFS-2022-0044_FDACS

DIVISION OF AQUACULTURE
(850) 617-7600
(850) 617-7601 FAX

THE HOLLAND BUILDING, SUITE 217
600 SOUTH CALHOUN STREET
TALLAHASSEE, FLORIDA 32399-1300

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

COMMISSIONER NICOLE "NIKKI" FRIED

August 1, 2022

Andrew Richard
Regional Aquaculture Coordinator
National Marine Fisheries Service, Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

Re: Docket No. NOAA-NMFS-2022-0044
"*Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings"*

Dear Mr. Richard:

Please accept our comments related to the Notice of Intent to Prepare a Programmatic Environmental Impact Statement (PEIS) to evaluate alternatives for identifying Aquaculture Opportunity Areas (AOAs) in Federal waters of the Gulf of Mexico. The Florida Department of Agriculture and Consumer Services (FDACS) is the primary agency with statutory authority for regulating aquaculture in Florida. FDACS continually seeks new opportunities to innovate and develop sustainable aquaculture in Florida and has extensive experience interacting with stakeholders and relevant state and federal agencies regarding aquaculture activities.

Furthermore, we have familiarity with the process of siting offshore aquaculture and what components should be involved. Prior to the federal AOA process starting, the state of Florida initiated a spatial siting analysis similar to the AOA evaluation process to better understand potential locations for offshore mariculture in Florida waters. In partnership with the National Oceanographic and Atmospheric Administration (NOAA) National Centers for Coastal Ocean Science, FDACS conducted a marine spatial planning analysis for state waters of the Gulf of Mexico with over 130 data layers to identify potentially suitable areas for net pens. One result of this effort was a usable map product that will serve as a foundation for future stakeholder engagement and spatial analysis. It is from this experience that we speak to considerations that we believe should be included in the PEIS for the Gulf of Mexico.

Through proper development and regulation, to safeguard ecosystems, species and the health and quality of products, adverse impacts will be reduced or mitigated entirely.[1]

Regulations should also encompass physical structures placed in the water. Tropical storms and hurricanes are a reality in the Gulf of Mexico and are expected to increase in frequency and strength over time with climate change. Here, we urge NOAA to include that any proposed gear and equipment be storm-safe or allow for operational plans that enable farmers to submerge gear to prevent as much storm damage as possible. Regulations should also stipulate that owners and operators must maintain gear and equipment in good working order at all times. Evidence of gear integrity – including netting, automated feed systems and other marine wildlife protection and deterrence devices – should be added to offshore aquaculture plans. It is noted that gear requirements may vary for each proposed location.

To the extent practicable, harmful algal bloom (HAB) modeling and predictions should also be included in the PEIS and a consideration of siting for offshore operations. Currently, it is unclear how the extent, duration and severity of harmful algal blooms might impact siting and management decisions for offshore aquaculture in the Gulf of Mexico.

We support the development of both finfish and seaweed aquaculture as part of the AOA process and especially encourage multi-trophic and multi-use areas (such as co-location with wind and wave energy infrastructure), as these can offer a wide range of benefits to food security, energy security, tourism, recreation and marine conservation. There is increasing attention being paid to how mariculture can function as part of a broader ecosystem, minimize conflicts with different ocean users and create synergies with other industries and management goals. In particular, mariculture may be actively designed and managed to provide and sustain coastal and marine ecosystem services. The idea of refurbishing oil platforms for aquaculture operations is equally exciting to consider. To the extent possible, we urge NOAA to include co-location with other industries in their siting recommendations.

In terms of social license, we suggest considering the perceptions of aquaculture from the coastal community or region prior to proposing AOA locations. Knowing the community and understanding their concerns near proposed AOA sites is another critical consideration when determining site suitability.

We believe there will be overwhelming cultural and economic benefits in working waterfront communities because the outputs will be additive for maritime industries and the seafood supply chain, including marinas, ports, seafood processing and distribution, seafood markets and other maritime retailers. Offshore aquaculture will also allow for new product development and domestic product sourcing. With this growth, we believe this industry can support the livelihoods of rural, economically depressed and underserved communities by diversifying skills and jobs of

[1] For example, Florida already has regulations for net pens in state waters. See https://www.FDACS.gov/content/download/64045/file/BMPMANUAL_2021Final.pdf

the maritime and seafood workforce. In the AOA process and National Environmental Policy Act (NEPA) analysis, NOAA should consider the locations of communities that have been historically disenfranchised, underserved or are economically depressed but could support (or are currently supporting) working waterfront infrastructure and seafood sector jobs. Selecting these types of communities for aquaculture operations could be a boon to their economies, while also supporting NOAA's goals for diversity, equity and inclusion.

Laying the groundwork for siting offshore aquaculture with a comprehensive PEIS process will provide the type of reliable and vetted information that is desired by the public and concerned stakeholders prior to the permitting process. The scope of the NEPA analysis can help more accurately identify and address the breadth of opportunities as well as concerns expressed by stakeholders, including the biological, ecological, economic, social and oceanographic components. Additionally, the PEIS could serve as a model for states and regulators to adopt, thus helping to expand the domestic aquaculture industry.

Thank you for the opportunity to provide comments. We hope that you find them useful in the development of the PEIS for AOAs. We look forward to future conversations on this topic as NOAA advances the AOA process and supports the domestic aquaculture industry. If you have any questions, please do not hesitate to contact me.

Sincerely,

Portia Sapp

Portia Sapp, Director
Division of Aquaculture
Florida Department of Agriculture and Consumer Services

PUBLIC SUBMISSION

As of: 9/2/22, 10:04 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-6sns-9h3d
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0155
Comment from Baldwin, Kathleen

Submitter Information

Name: Kathleen Baldwin
Address:
Pensacola, FL, 32507
Email: kbandsunny@gmail.com

General Comment

I urge you to choose Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico!

Reading about fish farms and observing them in other waters than the Gulf of Mexico demonstrates that this way of farming is not in the best interest of Gulf residents and the marine creatures that live in the Gulf. Please do not approve AOAs to give access to large companies that do not have the care and protection of the Gulf of Mexico as their main perogative. Only money.

PUBLIC SUBMISSION

As of: 9/2/22, 10:06 AM
Received: August 01, 2022
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Posted: August 01, 2022
Tracking No. l6b-6oxq-klvd
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0156
Comment from Gottesman, Judith

Submitter Information

Name: Judith Gottesman
Address:
El Cerrito, CA, 94530
Email: judithrachelleg@gmail.com

General Comment

Say no to more facilities which create waste in the Gulf of Mexico.

PUBLIC SUBMISSION

As of: 9/2/22, 10:08 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-738i-gl91
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0157
Comment from Foster, Leah

Submitter Information

Name: Leah Foster
Address:
New Orleans, LA, 70017
Email: leahsagefoster@gmail.com

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who

support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

PUBLIC SUBMISSION

As of: 9/2/22, 10:10 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-8ba8-x3oc
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0158
Comment from Schupsky, James

Submitter Information

Name: James Schupsky
Address:
Pittstown, NJ, 08867-4148
Email: jschupsky@comcast.net
Phone: 9087356497

General Comment

I oppose fish aquaculture within the ocean; risks are too great and there are plenty of plant protein sources. If we must fish, please let it be wild line caught and sustainable as possible. Jim Schupsky, 32 Lower Kingtown Rd., Pittstown, NJ 08867

PUBLIC SUBMISSION

As of: 9/2/22, 10:13 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-8ctq-8bk7
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0159
Comment from Landsverk, Lisa

Submitter Information

Name: Lisa Landsverk
Address:
Cambridge, MA, 02138
Email: lllands@aol.com
Phone: 6178998128

General Comment

I write to oppose the permitting of aquaculture farms in the Gulf of Mexico. Experience of the environmental and health dangers, as well as the immense cruelty, of intensive animal agriculture should suggest extreme caution in expanding this model to our oceans, already under threat from climate change and overfishing.

The threat of pollution from antibiotics, concentrated feed, and fish waste as well as the potential for transmission fo diseases from stressed farmed fish to wild fish should give us pause. Our hubris as a species has shown few bounds, and we are now paying a great price. Let's not gamble with the health of our oceans.

Fish farms subject fishes to unnatural, stressful conditions which make them vulnerable to parasites and diseases which can be transmitted to wild fishes. The facilities discharge concentrated pollutants into the surrounding waters. Fish farms also attract and endanger wildlife, and escaped fishes compete with them for resources.

Already, Ocean Era is seeking a permit to raise tens of thousands of Almaco Jacks off of Sarasota, Fl. It is estimated that 20,000 of these fishes would produce 80,000 pounds of waste, potentially including antibiotics and other chemicals. The Gulf of Mexico continues suffering from devastating red tides, with

massive marine animal die-offs, and fish farms are bound to exacerbate them.

Instead of facilitating the cruel exploitation of yet more animals, the government should be promoting healthful, humanely obtained and environmentally sustainable plant-derived foods. Please let the government know you are opposed to allowing fish farms in the Gulf of Mexico.
* Submit your comment by clicking here and then clicking on "Comment" in the blue box.

PUBLIC SUBMISSION

As of: 9/2/22, 10:15 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-8l05-6983
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Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0160
Comment from Escambia County Democratic Environmental Caucus of Florida

Submitter Information

Email: bawava@gmail.com
Organization: Escambia County Democratic Environmental Caucus of Florida

General Comment

We urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

PUBLIC SUBMISSION

As of: 9/2/22, 10:18 AM
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Status: Posted
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Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0161
Comment from Argo, Allison

Submitter Information

Name: Allison Argo
Address:
Brewster, MA, 02631
Email: argofilms@gmail.com

General Comment

I am writing to express my deep concern over fish farms. These farms are breeding grounds for parasites and diseases which can be transmitted to wild fishes. It is well-documented that these unnatural facilities also discharge concentrated pollutants into the surrounding waters. Please protect our wild fish and waters by saying No to Fish Farms.

PUBLIC SUBMISSION

As of: 9/2/22, 10:19 AM
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Status: Posted
Posted: August 01, 2022
Tracking No. l6b-8w9k-s18v
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0162
Comment from Randolph, Sarah

Submitter Information

Name: Sarah Randolph
Address:
Pensacola, FL, 32503
Email: srandolph57@gmail.com
Phone: 2028338258

General Comment

Please adopt Alternative 1, the No Action Alternative, in which no Aquaculture Opportunity Areas would be identified in Federal waters offshore of the Gulf of Mexico. Thank you.

PUBLIC SUBMISSION

As of: 9/2/22, 10:22 AM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-8zh6-uu9w
Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0163
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous
Email: Pensacacia@gmx.com

General Comment

COMMENTS:

This would be as bad as a leaking oil platform - re Blue Horizon . Please do not allow this.

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor

will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering these comments.

Joe Herron

PUBLIC SUBMISSION

As of: 9/2/22, 10:48 AM
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Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0164
Comment from Healthy Gulf

Submitter Information

Email: andrew@healthygulf.org
Organization: Healthy Gulf

General Comment

August 1, 2022

Mr. Andrew Strelcheck
Regional Administrator
NMFS Southeast Regional Office
263 13th Avenue So.
St. Petersburg, FL 33701

Submitted online at Docket No. NOAA-NMFS-2022-0044 at https:regulations.gov

Re: Notice of intent to prepare a Programmatic EIS for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to conduct public scoping meetings.

Dear Mr. Strelcheck:

Healthy Gulf, an environmental advocacy non-profit based in New Orleans, Louisiana, has been an advocacy voice for the Gulf for 27 years, representing our members in Texas, Louisiana, Mississippi,

Alabama, and Florida. As Gulf Restoration network we began with a focus on ocean policy, marine mammal protection, Clean Water Act permitting issues affecting Gulf drainage streams and waterways, and monitoring the oil and gas industry for spills and pipeline leaks. As Healthy Gulf, we maintain a focus on protecting water quality and the health of the natural communities of the Gulf while serving the human communities dependent on Gulf resources and their needs for information, organizing and policy resources.

Healthy Gulf has joined the comment letter submitted on this notice of intent to NOAA by Don't Cage Our Oceans, a coalition of national, regional and local organizations and businesses working to stop industrial-scale finfish farming while uplifting values-based seafood growth and supply systems that are community led.

We wish to emphasize a few of the points that the coalition covered in its letter. Our comments are found in the attached PDF File.

Sincerely,

Andrew Whitehurst,
Water Program Director
Healthy Gulf
3141 W. Tidewater Lane
Madison, MS 39110
andrew@healthygulf.or

Attachments

NOAA Aquaculture Opportunity Areas Healthy Gulf Comments Aug. 1 2022

935 Gravier St, STE 700
New Orleans, LA 70112

August 1, 2022

Mr. Andrew Strelcheck
Regional Administrator
NMFS Southeast Regional Office
263 13th Avenue So.
St. Petersburg, FL 33701

Submitted online at Docket No. NOAA-NMFS-2022-0044 at https:regulations.gov

Re: Notice of intent to prepare a Programmatic EIS for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to conduct public scoping meetings.

Dear Mr. Strelcheck:

Healthy Gulf, an environmental advocacy non-profit based in New Orleans, Louisiana, has been an advocacy voice for the Gulf for 27 years, representing our members in Texas, Louisiana, Mississippi, Alabama, and Florida. As Gulf Restoration network we began with a focus on ocean policy, marine mammal protection, Clean Water Act permitting issues affecting Gulf drainage streams and waterways, and monitoring the oil and gas industry for spills and pipeline leaks. As Healthy Gulf, we maintain a focus on protecting water quality and the health of the natural communities of the Gulf while serving the human communities dependent on Gulf resources and their needs for information, organizing and policy resources.

Healthy Gulf has joined the comment letter submitted on this notice of intent to NOAA by Don't Cage Our Oceans, a coalition of national, regional and local organizations and businesses working to stop industrial-scale finfish farming while uplifting values-based seafood growth and supply systems that are community led.

We wish to emphasize a few of the points that the coalition covered in its letter.

1) NOAA is not on solid legal ground in creating Aquaculture Opportunity Areas in the Gulf of Mexico or elsewhere because Congress has not specifically authorized the agency to act by passing legislation allowing it to permit or regulate aquaculture in U.S. federal waters. This problem of lack of statutory authority stands in clearer relief after West Virginia v. EPA was decided by the U.S. Supreme Court.

2) The nutrients in prepared fish diets, and the therapeutic chemicals necessary to treat diseases that will infect fish concentrated in net pens will be introduced into Gulf Waters that already

have identified nutrient pollution problems. Dissolved nitrogen and phosphorous levels are too high in Gulf waters, produce massive near-shore phytoplankton blooms that subsequently die after short growth cycles, and fall to the bottom, decompose and deplete benthic dissolved oxygen levels. The annual appearance of the Gulf Hypoxia Zone off the mouth of the Mississippi River is happening now, coincident with the timing of these scoping comments on AOA, and is being measured again this summer by scientists from LUMCON/LSU. Two or three of the aquaculture areas identified by NOAA off the Louisiana coast are within the normal footprint of the Gulf "dead zone." It would be irresponsible to permit fish farms to place fish food and metabolic waste from fish in surface waters in an area of the Gulf already under stress from eutrophication. NOAA has had a hand in helping fund the measurement of the dead zone over the past three decades. It would be the worst kind of "resource agency irony" if NOAA also allowed fish farms to discharge the kind of waste that fuels the Gulf 'dead zone' into areas already known to have nutrient-driven hypoxia problems.

3) Local communities in Gulf States will not be well supported or served by the fish produced by net pen culture in open Gulf waters. The species of fish that will be farmed in net pens in the open Gulf will be high-value food fish for restaurants (red drum, cobia) and for the sushi trade (Seriola jack). The high investment costs necessary for an offshore net-pen fish culture project will mean that a high return on investment must be produced. There is really only one way to achieve this – grow high-value finfish in intensive aquaculture settings. Net pen aquaculture in offshore areas will not work as business plans if open water fish farms grow low value species or do so in extensive settings. Most people living in Gulf Coast towns and cities will not be able to afford to buy or consume fish that costs $15-20 per pound retail. The fish produced by floating net pen farms will not support the food needs of the majority of people living in Houma, La., Gulfport, MS., or Pensacola FL.

4) NPDES permits for net-pen aquaculture will not support good water quality in the Gulf of Mexico because the wastes generated in these settings cannot be effectively captured and treated. Wasted (uneaten) feed pellets and fish metabolic waste are dissolved in the Gulf water that flows through the net pens. Indeed, having enough current to carry away fish waste is one of the desired features examined for in the siting of the 9 net pen anchoring areas off of Texas, Louisiana and Florida. An NPDES discharge permit for an enclosure anchored in Gulf waters cannot offer treatment for suspended solids, biological oxygen demand, total nitrogen, total phosphorous or for any therapeutic chemicals that may be used to treat internal disease or ecto-parasites affecting fish grown in net pens. An NPDES permit is essentially a license to put fish food pellets in the water and simply account in lbs. /day or in milligrams/liter for the periodic (often twice daily) loading/discharge of organic fish food components into the surrounding water column. An NPDES permit that offers no treatment or control of pollutants introduced into the waters of the United States has no role in reducing effluents. This makes it completely different from an NPDES permit that covers a chicken farm, city sewer plant, or factory that discharges to a stream. Beyond meaningless permit limits and the absence of treatment, Best Management Practices for fish feeding or fish waste management written into an NPDES cannot effectively process or reduce the organic compounds produced by an open water fish farm operation. The Gulf is the "treatment system" that the farm operator gets to use, by virtue of an NPDES permit.

The points we support are more fully described in the joint letter submitted by Don't Cage Our Oceans coalition.

Healthy Gulf supports the no-action alternative in which no AOAs would be identified in the Federal waters offshore of the Gulf of Mexico.

Thank you for the opportunity to submit comments.

Sincerely,

Andrew Whitehurst,
Water Program Director
Healthy Gulf
3141 W. Tidewater Lane
Madison, MS 39110
andrew@healthygulf.org

PUBLIC SUBMISSION

As of: 9/2/22, 10:55 AM
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Posted: August 01, 2022
Tracking No. l6b-9nhc-dgr3
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Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0165
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous
Email: jreisme3@yahoo.com

General Comment

I am OPPOSED to allowing fish farms in the Gulf of Mexico! Fish farms subject fishes to unnatural, stressful conditions which make them vulnerable to parasites and diseases which can be transmitted to wild fishes. The facilities discharge concentrated pollutants into the surrounding waters. Fish farms also attract and endanger wildlife, and escaped fishes compete with them for resources.

PUBLIC SUBMISSION

As of: 9/2/22, 10:56 AM
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Posted: August 01, 2022
Tracking No. l6b-9hmz-c75h
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0166
Comment from Bonefish & Tarpon Trust

Submitter Information

Email: kellie@bonefishtarpontrust.org
Organization: Bonefish & Tarpon Trust

General Comment

Please see the attached comments on behalf of the Bonefish & Tarpon Trust.

Attachments

BTT Gulf Aquaculture AOA PEIS Intent

August 1, 2021

Andrew Richard
Regional Aquaculture Coordinator
NMFS Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Bonefish & Tarpon TRUST
2937 SW 27th Avenue
Suite 203
Miami, FL 33133
www.btt.org

Dear Mr. Richard:

The Bonefish and Tarpon Trust (BTT) appreciates the opportunity to provide comments as you prepare a programmatic environmental impact statement (PEIS) to evaluate alternatives for identifying Aquaculture Opportunity Areas (AOAs) in Federal waters of the Gulf of Mexico.

BTT works to conserve bonefish, tarpon and permit – the species, their habitats, and the larger fisheries they comprise throughout the U.S., Gulf of Mexico, and Caribbean. In the Gulf, these iconic species support the region's economically and socially valuable recreational fishery and are important tourism drivers. Because of the potential impacts of offshore aquaculture on water quality, marine ecosystems, and native fisheries; BTT supports NOAA Fisheries being the lead regulatory agency over marine aquaculture activities to coordinate and clarify the permit process for individual aquaculture projects. BTT also supports the development of nationwide regulations to guide that process and enact sufficient environmental safeguards.

Regarding Aquaculture Opportunity Areas in the Gulf, BTT recommends the agency address the following issues in the PEIS, especially for finfish operations:

- The use of species not native to the local area or genetically modified species and the potential effects on native stocks, including both disease and genetic ramifications
- Adverse impacts of aquaculture activities to receiving and surrounding waters, particularly in the Gulf where red tide and the dead zone are significant concerns
- The use of marine forage species as aquaculture feed, both in terms of impacts to forage stocks and in terms of feed volume impacts on water quality
- Impacts to essential fish habitats and identification of critical benthic habitats and currents at depth that will affect cage placement and stability
- The unnatural aggregation of native species around aquaculture cages that may significantly disrupt migration patterns
- The use of pharmaceuticals in aquaculture activities that can impact surrounding fish stocks and water quality
- Construction durability of pens that allow them withstand weather disturbances, such as hurricanes

Thank you for your consideration of our comments.

Sincerely,

Kellie Ralston

Kellie Ralston
Vice President for Conservation and Public Policy

PUBLIC SUBMISSION

As of: 9/2/22, 11:07 AM
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Comments Due: August 01, 2022
Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0167
Comment from Willis, Kathryn

Submitter Information

Name: Kathryn Willis
Address:
Pensacola, FL, 32503
Email: katdiwill@yahoo.com
Phone: 6466482178

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

PUBLIC SUBMISSION

As of: 9/2/22, 12:14 PM
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Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0168
Comment from Healthy Gulf

Submitter Information

Email: raleigh@healthygulf.org
Organization: Healthy Gulf

General Comment

Please see the attached 242 comments from Healthy Gulf supporters.

Attachments

AOA petitions

NOAA aoa

First page of petition with 242 signatories. The complete list of signatories can be found at www.regulations.gov.

healthy gulf

To the National Oceanic and Atmospheric Association:

I urge you to not move forward with designating proposed "aquaculture opportunity areas" in the Gulf. Industrial offshore finfish farms would harm the hardworking commercial fishermen that are vital to the Gulf's culture and economy. Industrial finfish farming can lead to fish escapes, disease spread to wild populations, and increased pollution that contributes to red tide and other toxic algae blooms. In addition, opening the Gulf to industrial fish farming could lead to increased demand for bait fish like pogies that provide feed for these operations. Please support our existing commercial fishermen instead of promoting the caging of our oceans by private corporations.

NAME	CELL	OKAY TO TEXT?	EMAIL	ADDRESS	VOLUNTEER
[illegible signature]	1-386-281 7929			622 Divison St Biloxi	
Paula McMaster	314-276-5542	✓	psmcmaster72@gmail.com	932 Jackson Ave ~~Apt #4~~ New Orleans, LA 70130	✓
Terry Applebee	228 831-1462	V	[illegible] @ yahoo.com	12034 Harmony Cir. Gulfport, MS. 39503	
Marg Lucian			marglucian @ mail. Com		
LeAnna Burris	228 235 7806		leannaburris@gmail.com	1901 Switzer Rd Lot 54 Gulfport ms 39507	

PUBLIC SUBMISSION

As of: 9/2/22, 12:48 PM
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Submission Type: API

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0169
Comment from Willis, Darleen

Submitter Information

Name: Darleen Willis
Address:
Pensacola, FL, 32507
Email: darlargo2@att.net
Phone: 8504971595

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore

fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

PUBLIC SUBMISSION

As of: 9/2/22, 12:51 PM
Received: August 01, 2022
Status: Posted
Posted: August 01, 2022
Tracking No. l6b-bri3-exis
Comments Due: August 01, 2022
Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0170
Comment from Manning, Letitia

Submitter Information

Name: Letitia Manning
Address: United States,
Email: mtmanning21@yahoo.com

General Comment

To Whom It May Concern,
I am writing to urge that the Gulf of Mexico not be used for fish farming. I understand that the world's ocean is in grave danger due to overfishing, pollution, plastic and acidification. Fish farms, and most aquaculture, are a bad idea for the ocean. Fish farms require chemicals and pollutants are released into the ocean. Fish farms are unethical, as the fish themselves are kept in overcrowded, unnatural conditions. Fish are wild animals, and should not be farmed. Feeding the fish requires great quantities of food, as they are carnivores. Dr. Sylvia Earl says farming carnivores is unrealistic. I have noticed all the reports of whales, dolphins and sharks starving due to our overfishing, and fish farms only demand more fish be taken from the ocean.
We only have a window of time left to save our beautiful ocean, which is directly linked to the health of our planet and ourselves. I teach young children, and I hope that you will give all children a better future by not opening the Gulf of Mexico to fish farming.
Sincerely,
Letitia Manning

PUBLIC SUBMISSION

As of: 9/2/22, 12:51 PM
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Document: NOAA-NMFS-2022-0044-0170
Comment from Manning, Letitia

Submitter Information

Name: Letitia Manning
Address: United States,
Email: mtmanning21@yahoo.com

General Comment

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Sincerely,
Letitia Manning

PUBLIC SUBMISSION

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Submission Type: Web

Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0171
Comment from Florida Department of Environmental Protection

Submitter Information

Email: shana.kinsey@floridadep.gov
Government Agency Type: State
Government Agency: Florida Department of Environmental Protection

General Comment

See attached file(s)

Attachments

AOA PEIS Florida comment with enclosure 8-1-2022

FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

August 1, 2022

Mr. Andrew Richard
Regional Aquaculture Coordinator
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Dear Mr. Richard,

The Florida Department of Environmental Protection (Department) has coordinated a state review of the National Marine Fisheries Service's (NMFS) June 1, 2022 Federal Register notice of intent to prepare a Programmatic Environmental Impact Statement (PEIS) for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduce Public Scoping Meetings. The PEIS is being developed to evaluate alternatives for identifying Aquaculture Opportunity Areas (AOAs) in Federal waters of the Gulf of Mexico with the intent to support long-term planning for offshore aquaculture. The PEIS will evaluate the impacts and benefits associated with siting aquaculture in the proposed AOAs in Federal waters of the Gulf of Mexico (GOM), which could occur through future proposals and project level review.

The Department understands that an AOA is a defined geographic area that has been evaluated to determine its potential suitability for commercial aquaculture and that NMFS will utilize scientific analysis and public engagement to identify AOAs that may be environmentally, socially and economically suitable for commercial aquaculture. Further, the Department understands that AOAs will be identified by NMFS after the completion of the PEIS and issuance of the Record of Decision. The identification of these areas does not preclude the need for permits or other authorizations for aquaculture structures or activities. According to the Florida Department of Agriculture and Consumer Services (FDACS) Division of Aquaculture, Florida aquaculture has greatly increased in farm abundance over the past 30 years and continues to expand in production volume and diversity. Along with the rich maritime culture including commercial and recreational fishing, Florida has a strong infrastructure that supports demand for fresh seafood that is served at some 41,000 restaurants to 21.5 million residents and 126 million annual visitors.

Recently, the National Oceanic and Atmospheric Administration (NOAA) released Aquaculture Atlas for the GOM that identified nine locations as AOA options with three

offshore of Florida and these may be considered in the draft PEIS. On December 16, 2020, Florida commented on NOAA's request for information on the identification of areas within the Federal waters of the GOM for potential AOAs. Comments within that letter, attached, remain relevant to the draft PEIS and are supplemented, not supplanted, by the below additional comments.

Harmful algal blooms have long been a concern for the state. Red tide is one type of harmful algal bloom that is caused by high concentrations of toxic dinoflagellates, microscopic algae. In Florida and the Gulf of Mexico, the alga that causes most red tides is *Karenia brevis*. Red tides in Florida typically develop 10-40 miles offshore and some blooms may be carried into shallow coastal waters, including bays and estuaries. Over the past four years, Governor Ron DeSantis has targeted nutrient sources within the state to help halt harmful algal blooms. We ask that you consult with the Department in the development of any analysis of water quality impacts to inform this PEIS, including the potential impacts of nutrients, HABs, pharmaceuticals, and any other pollutants on Florida's coastal waters.

Additionally, in our previously mentioned letter, the Department detailed that Military training areas onshore and offshore Florida are vital to our military's ability to maintain readiness and conduct activities critical to our nation's security. Florida's military bases are dependent on access to the air and sea space the Gulf of Mexico Range Complex (GOMEX Range Complex) provides. In the Appendix D of the Aquaculture Atlas for the GOM, a letter from the Department of Defense, also detailed the importance of the eastern GOM for the Military and that aquaculture development may impact military flight testing and training. The PEIS should fully evaluate the impact of aquaculture activities to Military training areas offshore of Florida.

Thank you for the opportunity to provide comments and we look forward to working with NMFS on this issue. Should you have any questions, please contact Shana Kinsey-Carlsen at shana.kinsey@floridadep.gov or 850-245-2185.

Sincerely,

Michael A. Shirley

Dr. Michael Shirley
Deputy Director, Office of Resilience and Coastal Protection

Enclosure

FLORIDA DEPARTMENT OF Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, FL 32399

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

December 16, 2020

Ms. Danielle Blalock
Director
Office of Aquaculture
National Marine Fisheries Service

RE: NOAA-NMFS-2020-0118 – Aquaculture Opportunity Areas

SAI # FL202011099078

Dear Ms. Blalock,

On October 23, 2020, the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS) requested comments regarding the identification of areas within the Federal waters of the Gulf of Mexico and off Southern California for the first two Aquaculture Opportunity Areas (AOA). AOAs are small defined geographic area(s) that have been evaluated for suitability for commercial aquaculture. NOAA plans to identify subset areas within the AOAs that are environmentally, socially, and economically appropriate for commercial aquaculture. The creation of these areas does not preclude the need for permits or authorizations for aquaculture structures or activities.

On May 7, 2020, the White House issued an Executive Order on Promoting American Seafood Competitiveness and Economic Growth (E.O. 13921), which requires the Secretary of Commerce to identify geographic areas containing locations suitable for commercial aquaculture, and complete a National Environmental Policy Act (NEPA) Programmatic Environmental Impact Statement (PEIS) for each area to assess the impact of siting aquaculture facilities there. NOAA selected Federal waters within the Gulf of Mexico and off Southern California, south of Point Conception, as the regions where the first two AOAs will be located.

The Florida Department of Environmental Protection has coordinated a review of the proposed project. The Florida Department of Agriculture Division of Aquaculture (FLDAC) submitted their letter directly to NOAA on December 7, 2020 delineating their comments and concerns. The Florida Fish and Wildlife Conservation Commission delineates several habitat types that should be considered and avoided for designation of AOA's, including hardbottom, livebottom, sensitive geological features, essential fish

habitats, designated critical habitats. Additional concerns for the State that should be considered when determining any AOAs offshore of Florida include sensitive habitats/resources, military uses, recreational and commercial fisheries and other possible stakeholders.

One of the sensitive habitats is the Florida Reef Tract. Florida is the only state in the continental United States to have extensive shallow coral reef formations along its coasts. This reef tract extends for nearly 360 miles from St. Lucie inlet in Martin County to the Dry Tortugas in the Gulf of Mexico and is the third largest barrier reef ecosystem in the world. The Florida Reef Tract contains similar coral formations to those found in the Bahamas and Caribbean Sea. The northern reef tract was designed by the Florida legislature as the Southeast Florida Coral Reef Ecosystem Conservation Area in 2018 and the southern extent of the reef tract lies within the boundaries of the Florida Keys National Marine Sanctuary (FKNMS). The FKNMS encompasses 2,800-square nautical miles that surrounds the entire archipelago of the Florida Keys and includes the productive waters of Florida Bay, the Gulf of Mexico and the Atlantic Ocean. The coral reef communities continue northward in deeper waters along the gulf coast of Florida to the Florida Middle Grounds, a series of submerged pinnacles rising to within 60-80 feet of the surface located about 100 miles northwest of St. Petersburg, FL.

Most recently the Florida Reef Tract has been affected by a new environmental crisis of an unprecedented disease outbreak. Beginning in 2014 with isolated diseased coral colonies near Key Biscayne off the coast of Miami-Dade County, the disease outbreak had continued to spread. This disease outbreak will make the remaining corals and coral reefs more vulnerable and sensitive to any activities that could further impact the health of the reef tract.

There are several areas along Florida's coast that are designated as Outstanding Florida Waters including parks, aquatic preserves and national estuarine research reserves. There should be a sufficient distance from those areas that would preclude any downstream impacts or exceedance of state water quality standards. The GIS data layer that specifically includes all the boundaries of the OFWs of the state can be found at https://geodata.dep.state.fl.us/datasets/681b93ec295f4003abb5a97cd5b51173_0.

Additionally, deposits of beach quality sand should be avoided while designating possible AOAs. Florida invests millions of dollars annually to protect, preserve and manage our valuable sandy beaches and adjacent coastal systems. In many areas of the state, the beach and dune system is often the first line of defense against storms, absorbing wave energy and reducing the damage to upland structures. The ability to maintain these beach systems is dependent on the increasingly limited sand resources that exist nearshore and offshore of the coast, forcing the use of sand from the Outer Continental Shelf. Increased offshore activities could impact the quality and quantity of sand available for critically important beach maintenance projects.

Military training areas onshore and offshore Florida are vital to our military's ability to maintain readiness and conduct activities critical to our nation's security. Florida's military bases are dependent on access to the air and sea space the Gulf of Mexico Range Complex (GOMEX Range Complex) provides. The GOMEX Range Complex is larger than all other training ranges inside the continental United States combined and has been in use for over 60 years. The GOMEX Range Complex stretches from the Florida Panhandle (commonly referred to as the Military Mission Line) south to Key West and encompasses 180,000 square miles in the eastern Gulf of Mexico.[1] The GOMEX Range Complex supports missions at many installations including NAS Pensacola, NAS Whiting Field, Hurlburt Air Force Base, Duke Field, Eglin Air Force Base, NSA Panama City, Tyndall Air Force Base, MacDill Air Force Base, and NAS Key West.

The Florida Department of State recommends that cultural resources such as shipwrecks inundated archaeological sites be considered in determining locations for AOAs. They recommend contacting the Florida Master Site File Office for listings and GIS information of sites and cultural resource surveys for the proposed AOAs. In addition, an assessment of the cultural resources should be conducted, and the DOS would like to review the Florida AOA locations to ensure all concerns have been addressed.

Enclosed please find additional information from Florida Fish and Wildlife Conservation Commission and the Florida Department of State. Thank you for the opportunity to review the proposed project and we look forward to working with NOAA regarding the possible designation of AOAs in the Gulf of Mexico.

Should you have any questions, please contact Shana Kinsey-Carlsen at shana.kinsey@floridadep.gov or 850-245-2185.

Sincerely,

Alex Reed

Alex Reed
Director, Office of Resilience and Coastal Protection

Enclosure

[1] Florida Defense Support Task Force White Paper, *Oil Drilling & Military Mission Compatibility,* 1 (January 2017), *available at* https://www.enterpriseflorida.com/wp-content/uploads/FDSTF-White-Paper-Oil-Drilling-and-Military-Mission-Compatability.pdf (last visited February 28, 2018).

Florida Fish and Wildlife Conservation Commission

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Division of Marine Fisheries Management
Jessica McCawley
Director

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Tallahassee, Florida
32399-1600
Voice: 850-488-4676

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800 955-8770 (V)

MyFWC.com

December 10, 2020

Submitted via Electronic Mail

Ms. Shana Kinsey-Carlson
Florida Department of Environmental Protection
Office of Resilience and Coastal Protection
shana.kinsey@floridadep.gov

RE: SAI # FL202011099078; Request for Information; Aquaculture Opportunity Areas; National Oceanic and Atmospheric Administration (NOAA)

Dear Shana:

The Division of Marine Fisheries Management of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated agency review of the Federal Register Notice (FRN) for a Request for Information on Aquaculture Opportunity Areas (AOAs), and provide the following comments and information for consideration by National Oceanic and Atmospheric Administration (NOAA). FWC comments and information are specific to waters of the Gulf of Mexico (GoM) adjacent to Florida and for all marine species that may be cultured within AOAs.

Question 1

1. With input from industry and based on previous permit applications, we have identified the water depths and maximum distances from shore (see a. and b. below) that we expect to support aquaculture within Federal waters (i.e., U.S. Exclusive Economic Zone) of the Gulf of Mexico and Southern California as starting points for the process of identifying AOAs. Are there types of offshore aquaculture that these areas may or may not support, or are there other water depths and maximum distances from shore that should be considered, and why?
a. In the Gulf of Mexico, we are looking at areas that:
i. Are within the depth range of 50 to 150 meters.
ii. Do not have a specified maximum distance from shore.
b. In Southern California, we are looking at areas that:
i. Are within the depth range of 10 to 150 meters.
ii. Are a maximum distance of 25 nautical miles from shore.

FWC Comments for Question 1

NOAA is investigating areas in Federal waters of the GoM for AOA designation that are within the depth range of 50 to 150 meters. Attachment 1 identifies the substantial area within the GoM adjacent to Florida that is not being considered by this depth range (boundary of State-Federal waters out to 50 meter depth), and this area could be ~20 miles to 100+ miles offshore depending on which area off Florida a culturist would site their operation.

AOA comments submitted to NOAA by the Florida Department of Agriculture and Consumer Services (dated December 7, 2020) stated:

> In an expert survey conducted by the Florida Department of Agriculture and Consumer Services (FDACS) Division of Aquaculture in June 2019, this particular question was asked: "What do you consider an ideal distance to shore for an offshore aquaculture operation in Florida Gulf waters?" Answers varied from the specific (e.g., 5-9 nm, "a 30-minute boat ride") to the general (e.g., "Deep enough to raise fish and close enough to be practical") but made clear that there needs to be a balance between environmental considerations, competing uses of the space and practicality for business operations.

Given that FDACS survey respondents generally identified that the ideal distance from shore for an aquaculture operation is "Deep enough to raise fish and close enough to be practical", and based on the substantial size of the area identified in Attachment 1 that is not being included for consideration for this AOA planning process, it would appear that NOAA is not considering areas as part of this AOA planning process that would be feasible to conduct aquaculture activities in Federal waters adjacent to Florida.

Question 2
Are there specific locations or habitats within Federal waters of the Gulf of Mexico or Southern California that should be considered for AOAs? Are there specific locations that should be avoided? Please be as specific as possible and include latitude and longitude or defining landmarks. Please indicate why such areas should be considered or avoided, for example, favorable biological parameters, water quality (e.g., nutrients or other constituents that might make an area favorable), proximity to infrastructure (e.g., ports, processing plants, hatcheries or nurseries that could supply fingerlings for grow-out), relationship to other planned initiatives, etc.

FWC Comments for Question 2
There are some areas of the GoM seafloor within the 50-150m depth range that have been well-mapped because they are unique and have received special research attention. Examples of these areas are: Pully Ridge, The Elbow, Florida Middle Ground, Madison-Swanson, Steamboat Lumps, and The Edges. But other than these types of areas, there is very limited mapping of seafloor type within the 50-150m depth range (availability of seafloor mapping data improves both around the escarpment - 200m+ and near-shore).

In the absence of sufficient mapping data, the following general features within the 50-150m depth range are ecologically significant and should be avoided:

- Structural features - All areas of hard bottom, particularly high relief hard bottom or hard bottom areas supporting the growth of structure-creating biota such as sponges, octocorals and soft corals, with an appropriate buffer around these areas. At a minimum, facilities should only be considered for siting far enough up the predominate current and away from hardbottom such that physical disturbance, nutrient contamination, or disease vectors from activities associated with aquaculture facilities do not adversely affect benthic resources or native species found in hardbottom areas (recommend a minimum of 1 km).
- Geological features - Blue holes, ledges, ridges, escarpments, underwater springs. Siting near geological features should also have an appropriate buffer as identified above for structural features.

Additionally, the following features with a biological component that have likely been previously identified by NOAA should also be avoided:

- Deep water corals (https://gulfcouncil.org/fishery-management/implemented-plans/coral/)
- Known spawning aggregations
- Essential Fish Habitat (EFH) including focal migration corridors
- Designated critical habitat or other identified habitat for marine mammals or other species listed pursuant to the Marine Mammal Protection Act or the Endangered Species Act. In particular, the Gulf of Mexico Bryde's whale was recently listed and it is a year-round resident of the northeastern Gulf of Mexico. NOAA has recently defined a

core habitat area in advance of critical habitat designation for this critically endangered whale believed to have < 50 individuals.
- Areas designated as Marine Protected Areas, Habitat Areas of Particular Concern (HAPCs), or other similar designations

Question 4
Are there specific locations within Federal waters of the Gulf of Mexico or Southern California that should be avoided because of concerns about harmful algal blooms (HABs) or impaired water quality? Please specify whether these concerns are related to: (a) Aquaculture activities being impacted by HABs and impaired water quality, or (b) aquaculture activities contributing to HABs and impaired water quality?

FWC Comments for Question 4
There is no way to predict the occurrence, precise location, or duration of HABs so there are no specific locations within Federal waters of the Gulf of Mexico that FWC could recommend avoiding due to concerns for HABs. FWC does recommend that NOAA incorporate consideration of data that can be indicators of nutrient levels into AOA planning processes such as Chlorophyll a (CHl-a) and Colored Dissolved Organic Matter (CDOM). But ultimately aquaculture activities must be managed and conducted in a manner to avoid creating or exacerbating conditions that may support the development and persistence of HABs.

(a) *Karenia brevis*, also known as red tide, is a dinoflagellate that produces neurotoxic brevetoxins and blooms nearly annually in southwest Florida (e.g., over the past 25 years, 2010 was the only year without a bloom). Monitoring data for *K. brevis* in Florida is available via the FWRI HAB Monitoring database (email: HABData@myfwc.com). Blooms (>100,000 cells L-1) also occur regularly along Florida's Panhandle region (i.e., with 22 events since 1964) and often co-occur with blooms in the southwest region and can even extend further west to other Gulf states, or around the southern tip of Florida and along the Atlantic coast. Blooms can extend >100 km offshore and are often patchy in space and time, yet can persist for months to years. Relatively few samples are collected offshore relative to those collected in estuaries and along the coast, and sampling effort in general has varied widely over time. Brevetoxins from red tide blooms may impact aquaculture activities through mass mortalities of fish and other animal species including marine mammals (dolphins and manatees), birds, invertebrates (arthropods, cnidarians, tunicates, molluscs), and sea turtles in the Gulf of Mexico and occasionally along the southeastern US Atlantic coast. Mechanisms can include trophic transfer of, or direct exposure to, brevetoxins or for some wildlife, low dissolved oxygen resulting from sustained blooms.

(b) Blooms of *Karenia brevis* typically begin offshore at depth and are brought inshore by ocean currents. Lab and field studies have shown that *K. brevis* can use a broad diversity of nutrients, including natural and anthropogenic sources. *K. brevis* occurs throughout the Gulf of Mexico and throughout the year (although blooms typically start in late summer or fall) and can persist across a broad temperature and salinity range. Decomposing fish are thought to provide a source of nutrients, and concerns for aquaculture activities contributing to HABs and impairing water quality stem from uneaten food, decomposing fish from normal operations, and fish waste which will cause eutrophication that could contribute to the development and/or intensification of algal blooms such as *K. brevis* as well as low dissolved oxygen. Resulting issues may or may not be solely localized, given the typical currents on the West Florida shelf and how they impact local retention as well as connectivity between offshore and nearshore regions.

Question 6
Is there information that may not be readily available or accessible online that would be useful for AOA planning processes in Federal waters of the Gulf of Mexico and Southern California? This includes spatial data or geographic information system (GIS) layers representing environmental and socioeconomic considerations, or a point of contact for these data, for the following categories:

- Biophysical/oceanographic (wave climate, currents, bathymetry)
- Natural resources (minerals, energy resources, fishes and aquatic organisms, protected species and habitats, coral reefs, biodiversity)
- Social and cultural resources
- Government boundaries
- Industry (fishing, energy production, transportation, communication cables)
- Military
- Navigation

FWC Comments for Question 6
FWC offers the following contacts and links with regards to the informational categories identified in Question 6:

- Biophysical/oceanographic (wave climate, currents, bathymetry)
  - High resolution subsurface currents modeling:
    Contact - Bob Weisberg weisberg@usf.edu with the University of South Florida, College of Marine Science
  - An index of seafloor mapping efforts:
    https://myfwc.maps.arcgis.com/apps/webappviewer/index.html?id=b7a8190f3f7141a0828d18209472d9c6
- Natural resources (minerals, energy resources, fishes and aquatic organisms, protected species and habitats, coral reefs, biodiversity)
  - Essential Fish Habitat for species managed by the Gulf of Mexico Fishery Management Council and Atlantic Highly Migratory Species:
    https://portal.gulfcouncil.org/EFHreview.html
    https://www.habitat.noaa.gov/application/efhmapper/index.html
  - Artificial Reefs:
    Contact - Keith Mille Keith.Mille@MyFWC.com with the FWC Division of Marine Fisheries Management

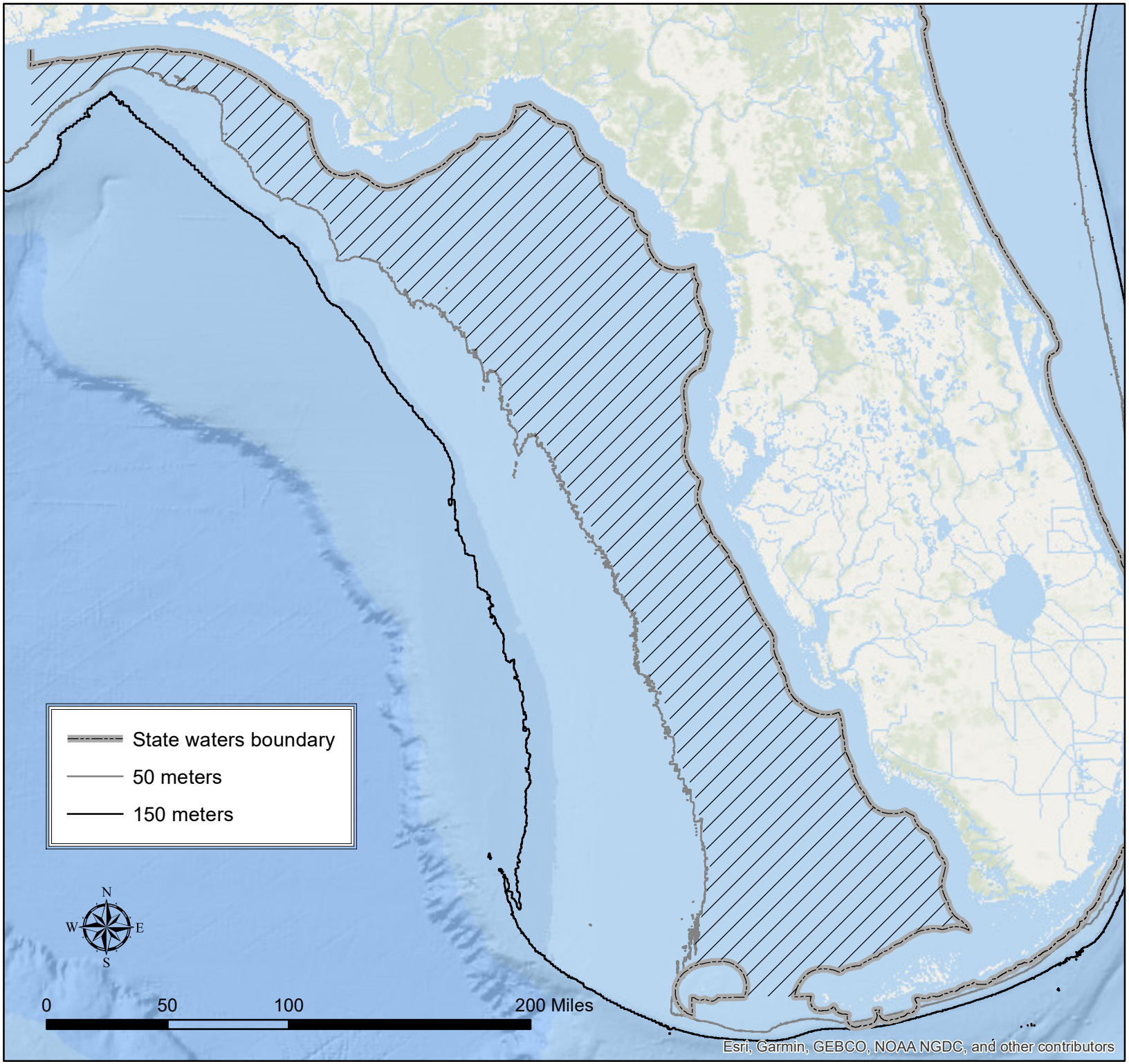
The FWC appreciates NOAA providing the opportunity to comment on this Aquaculture Opportunity Area process. Please contact Lisa Gregg Lisa.Gregg@MyFWC.com if you have any questions or require any additional information regarding our comments.

Sincerely,

James R. Estes
Deputy Director

je/lg

Attachment 1
FL GoM Bathymetry Map
AOA Planning Processes



FLORIDA DEPARTMENT of STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

Ms. Shana Kinsey-Carlsen
Department of Environmental Protection
3900 Commonwealth Boulevard, MS 235
Tallahassee, FL 32399-3000

December 14, 2020

RE: DHR Project File No.: 2020-7229
National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS) is requesting information/comment as a first step in the creation of Aquaculture Opportunity Areas (AOA) in federal waters of the United States
SAI # FL202011099078

Dear Ms. Kinsey-Carlsen:

This office reviewed the referenced document to identify issues for possible concerns regarding impact to historic properties listed, or eligible for listing, in the National Register of Historic Places. Our review was conducted in accordance with Section 106 of the National Historic Preservation Act of 1966 as amended, Chapters 267 and 373, Florida Statutes, Florida's Coastal Management Program, and implementing state regulations, for possible impact to historic properties listed, or eligible for listing, in the National Register of Historic Places, or otherwise of historical, architectural, or archaeological value. The State Historic Preservation Officer is to advise and assist state and federal agencies when identifying historic properties, assessing effects upon them, and considering alternatives to avoid or minimize adverse effects.

It is the recommendation of this office that cultural resources such as shipwrecks, inundated archaeological sites, and such be considered in determining locations for the AOAs. We recommend contacting our Florida Master Site File (FMSF) Office (https://dos.myflorida.com/historical/preservation/master-site-file/) at sitefile@dos.myflorida.com, or 850-245-6440. The FMSF can provide a listing and GIS information of sites and cultural resource surveys that have been recorded in the Gulf of Mexico, and other areas of Florida. Depending on the recorded resources, these are areas that should likely be avoided as AOA sites, or further investigated. In addition, we recommend that an underwater cultural resource assessment survey be conducted by a qualified archaeological professional of the AOA locations considered for the project if they have not been previously investigated. This will determine if there are unrecorded cultural resources in the project area. In addition, this office would like to review the Florida AOA locations that are selected to determine if all our concerns have been addressed.

For any questions concerning our comments, please contact Robin Jackson, Historic Preservationist, Compliance and Review, by electronic mail at robin.jackson@dos.myflorida.com, or at 850.245.6496, or 800.847.7278.

Sincerely,

Jason Aldridge
For

Timothy A. Parsons, Ph.D.
Director, Division of Historical Resources and State Historic Preservation Officer

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0172
Comment from Anonymous

Submitter Information

Name: Anonymous Anonymous
Email: lornap6@juno.com

General Comment

I oppose allowing factory fish farms off the Gulf of Mexico. Fish farms subject fishes to unnatural, stressful conditions which make them vulnerable to parasites and diseases which can be transmitted to wild fishes. The facilities discharge concentrated pollutants into the surrounding waters. Fish farms also attract and endanger wildlife, and escaped fishes compete with them for resources. The U.S. should be investing in plant-based food, not expanding fish farming. Thank you.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0173
Comment from Natural Resources Defense Council

Submitter Information

Email: fkershaw@nrdc.org
Organization: Natural Resources Defense Council

General Comment

The Natural Resources Defense Council (NRDC) respectfully submits the following comments regarding the Notice of Intent to prepare a Programmatic Environmental Impact Statement (“PEIS”) for the identification of Aquaculture Opportunity Areas (“AOAs”) in the federal waters of the Gulf of Mexico. 87 Fed. Reg. 33,124 (Jun. 1, 2022). Please see the attached file.

Attachments

Comments. NOI for PEIS for GOM AoAs. 1Aug2022

Submitted electronically via www.regulations.gov

August 1, 2022

Andrew Richard
Regional Aquaculture Coordinator
NMFS, Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

RE: Comments on the Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in the Federal Waters of the Gulf of Mexico (NOAA-NMFS-2022-044)

Dear Mr. Richard,

The Natural Resources Defense Council (NRDC) respectfully submits the following comments regarding the Notice of Intent to prepare a Programmatic Environmental Impact Statement ("PEIS") for the identification of Aquaculture Opportunity Areas ("AOAs") in the federal waters of the Gulf of Mexico. 87 Fed. Reg. 33,124 (Jun. 1, 2022). In general, NRDC supports the No Action Alternative in relation to advancing AOAs for finfish aquaculture in the federal waters of the Gulf of Mexico. As stated in previous comments to the National Marine Fisheries Service ("NMFS"),[1] this position is borne out of concerns pertaining to: (i) key knowledge gaps regarding the potential adverse impacts associated with the development of finfish aquaculture; (ii) potential conflicts of siting AOAs within marine protected areas and important habitat areas for marine mammals; and (iii) the need for improved consultation and coordination between NMFS and affected state governments. Notwithstanding these concerns, we appreciate this early comment opportunity and submit this letter with the specific purpose of ensuring that AOA identification, if it advances, does so in a manner sufficiently protective of the critically endangered Rice's whale (*Balaenoptera ricei*). We submit the following recommendations:

NMFS must prioritize the protection of the critically endangered Rice's whale

Recently determined to be a new and distinct species,[2] Rice's whale is the only large whale species to fully reside in the Gulf of Mexico and is counted among the most endangered marine mammal species in existence. Only 51 individuals remain, according to best estimates, and the species can only afford to lose one whale approximately every fifteen years as a result if human impacts if it is to ever recover.[3] Rice's

[1] Letter from R. Loomis, F. Kershaw, I. Gutierrez, and R. Nelson (NRDC) to Ms. Danielle Blacklock, Director, Office of Aquaculture, National Marine Fisheries Service, re: "Comments on Request for Information on Designation of Aquaculture Opportunity Areas," submitted 22 Dec. 2020.

[2] Rosel, P.E., Wilcox, L.A., Yamada, T.K. and Mullin, K.D., "A new species of baleen whale (Balaenoptera) from the Gulf of Mexico, with a review of its geographic distribution." *Marine Mammal Science*, vol. 37(2), pp. 577-610 (2021).

[3] NOAA Fisheries. "Bryde's whale (*Balaenoptera edeni*): Northern Gulf of Mexico Stock." U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments (April 2021) at 162. Potential Biological Removal (PBR) is the product of the minimum population size, one-half the maximum net productivity rate, and a recovery factor (MMPA Sec. 3.16 U.S.C. 1362; Wade and Angliss 1997; Wade 1998). According to the Draft Stock Assessment Report, the minimum population size is 34, the maximum productivity rate is 0.04, the default value for cetaceans, and the recovery factor is 0.1 because the stock is listed as endangered.

whale is listed as endangered under the Endangered Species Act ("ESA")[4] and as Critically Endangered by the International Union for Conservation of Nature ("IUCN") Red List.[5]

Rice's whale is at extremely high risk of extinction and cannot withstand any additional impacts from human activities, including those impacts from the development of offshore aquaculture. Indeed, in speaking to the management needs of the species, one of NMFS's leading marine mammal scientists with specific expertise on Rice's whale recently stated: "The goal is zero impact, and that is what it has to be to recover the population."[6] **If the identification of AOAs advances in the Gulf of Mexico, full protection of the Rice's whale, including the complete avoidance of permitting aquaculture developments within the whale's limited Gulf habitat, is, in our view, non-negotiable.** These protections must be incorporated into the forthcoming PEIS.

NMFS must use the best available scientific information on Rice's whale habitat

The NOAA-led RESTORE Act Science Program project, "Trophic Interactions and Habitat Requirements of Gulf of Mexico Rice's Whales," which concluded in May 2021, represents the best available scientific information for the species.[7] The project has foundational importance for understanding the whales' habitat[8] and, as stated by NOAA, is intended to "contribute directly" to environmental impact analysis.[9] The research includes, for example, studies of the whales' foraging behavior, the prey composition in the area in which they forage, and the oceanographic features in the Gulf necessary to support their prey.[10] Notably, acoustic detections in the western Gulf confirm that some Rice's whales "persistently occur over a broader range in the [Gulf of Mexico] than previously understood."[11] The multiple lines of evidence produced by the multi-year RESTORE Act project supports the identification of habitat extending from an area in the upper depths of the DeSoto Canyon, in the eastern Gulf, along the continental shelf break through the central and western Gulf between the 100 and 400 m isobaths. NMFS must incorporate this best available scientific information into the forthcoming PEIS.

We therefore calculate PBR for the Gulf of Mexico whale as 0.068 (in our view, PBR should not be rounded up to 0.1, as done in the Stock Assessment Report; p. 162, Table 2).

[4] 84 Fed. Reg. at 15,446 (Apr. 15, 2019).

[5] Corkeron, P., Reeves, R., and Rosel, P., "Gulf of Mexico Whale. *Balaenoptera edeni* (Gulf of Mexico subpopulation)." The IUCN Red List of Threatened Species, e.T117636167A117636174 (2017). https://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T117636167A117636174.en.

[6] NMFS, Rice's Whale Recovery Workshop No. 3 (Nov. 10, 2021).

[7] https://restoreactscienceprogram.noaa.gov/projects/rices-whales. *See also*, https://coastalscience.noaa.gov/news/researchers-identify-endangered-rices-whales-habitat-requirements-to-inform-recovery-efforts-video/.

[8] *Id*. "This project is developing a comprehensive ecological understanding of Gulf of Mexico Rice's whales, including the physical, oceanographic, and biological features defining critical habitat and their ecological role in Gulf of Mexico marine food webs."

[9] *Id*. "The project results will contribute directly to the development of restoration plans, recovery plans, and environmental impact assessments that are key to the effective conservation of Gulf of Mexico Rice's whales."

[10] Garrison, L., "The Trophic Ecology and Habitat of the Endangered Gulf of Mexico Bryde's Whale (*Balaenoptera edeni*)," online webinar, https://restoreactscienceprogram.noaa.gov/projects/rices-whales.

[11] Soldevilla, M.S., Debich, A.J., Garrison, L.P., Hildebrand, J.A., and Wiggins, S.M., "Rice's whales in the northwestern Gulf of Mexico: call variation and occurrence beyond the known core habitat." *Endangered Species Research*, vol. 48, pp. 155-174 (2022) at 155. https://doi.org/10.3354/esr01196. *See*, *also*, *id*. at 19:03; and Soldevilla, M.S., Ternus, K., Cook, K., Hildebrand, J.A., Frasier, K.E., Martinez, A., and Garrison, L.P., "Acoustic localization, validation, and characterization of Rice's whales calls." *Journal of the Acoustical Society of America*, vol. 151(6), pp. 4262-4278 (2022). https://doi.org/10.1121/10.0011677.

Critical habitat designation under the ESA is expected in late 2023[12] and will need to be factored into future agency actions. The pendency of critical habitat does not, however, preclude NMFS from using the best available scientific information to define Rice's whale habitat, as described above, and use that information to determine appropriate AOA siting decisions. In a similar vein, the forthcoming revised Biologically Important Area ("BIA") for the species[13] should be factored into NMFS' analyses as soon as it becomes available.

NMFS must avoid siting AOAs in Rice's whale habitat and require additional protective measures

We strongly urge NMFS to avoid siting AOAs in Rice's whale habitat, as identified by best available scientific information and through early and regular coordination with the NMFS Office of Protected Resources and the Southwest Fisheries Science Center. The agency should also (a) exclude a 20-km area shoreward of the 100 m isobath and seaward of the 400 m isobath in the AOA study area in the western and central Gulf (i.e., west of the core distribution area), as well as the portion of the AOA Study Area to the south of the core distribution area, to account for species movement, consistent with the position NMFS took in defining the species' core distribution area;[14] and (b) avoid, when possible, siting in areas seaward of the 400 m isobath, to reduce vessel transits across the whales' habitat.

Additionally, to the extent that siting AOAs in areas seaward of Rice's whale habitat cannot be avoided, NMFS should set strict requirements on vessel transits through the area, consistent with the terms of the Reasonable and Prudent Alterative set forth in the NOAA Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of Mexico.[15] These requirements include, but are not limited to: (i) a 10-knot speed restriction for all vessels, regardless of size, during daylight hours; (ii) no transit at nighttime or during low visibility conditions; and (iii) visual observers monitoring the vessel strike avoidance zone (500 m).

Figure 1, below, indicates the AOAs that NMFS deems most likely to move forward and the location of Rice's whale habitat. This comparison strongly indicates that potential siting conflicts may exist, and that other activities associated with aquaculture development, such as vessel transits, may also pose a credible future risk. We urge NMFS to fully evaluate the risks to Rice's whale in the PEIS and reconsider any AOA siting decision that may pose any additional risk to the species.

[12] Order, *NRDC v. Raimondo*, Civ. No. 1:20-cv-2047 (D.D.C. Oct. 14, 2021) (consent order, adopting agreement that requires, *inter alia*, submission of any final rule designating critical habitat by Oct. 31, 2023).

[13] https://oceannoise.noaa.gov/biologically-important-areas.

[14] In 2019, National Marine Fisheries Service released a map of the current core distribution area of Rice's whale based on visual sightings and tag data. The polygon includes a 10-km buffer to capture uncertainty in position data, followed by a 20-km buffer to account for the possible movement that whales could make in any one direction from an observed sighting. https://www.fisheries.noaa.gov/resource/map/rices-whale-core-distribution-area-map-gis-data.

[15] Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of Mexico" (Mar. 2020). https://media.fisheries.noaa.gov/dammigration/final_biop_gomex_oil_and_gas_program_03132020.pdf.

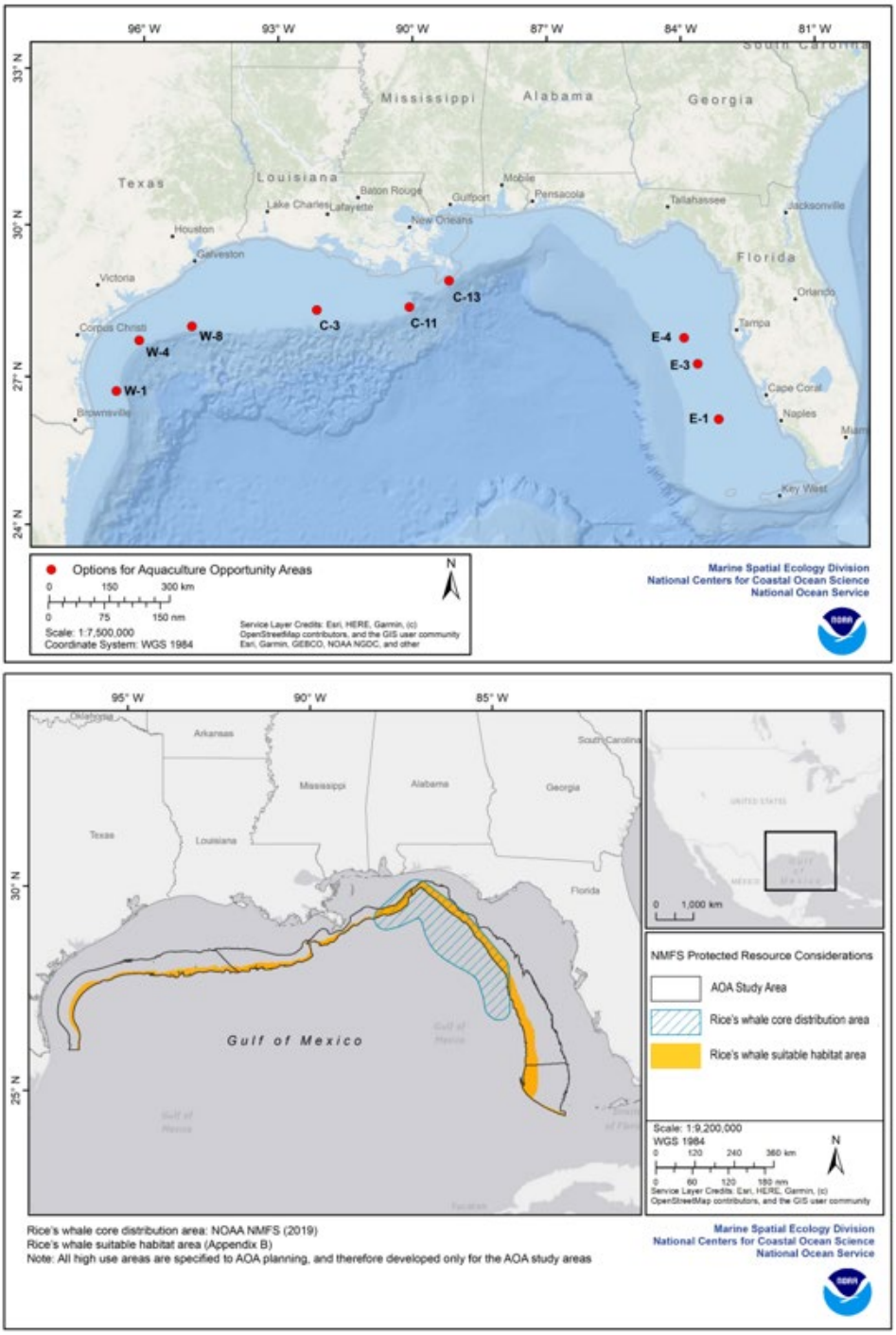


Figure 1. Top panel: Distribution of the options for AOAs in the U.S. federal waters of the Gulf of Mexico; Bottom panel: The location of the Rice's whale core distribution area (blue diagonal shading) and the portion of the species' suitable habitat areas (defined as the area between the 100 m and 400 m isobaths) that overlaps with the AOA Study Area (orange shading). Source: An Aquaculture Opportunity Area Atlas for the U.S. Gulf of Mexico.[16]

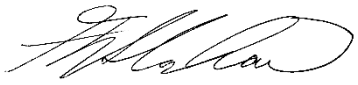
[16] Riley, K.L., Wickliffe, L.C., Jossart, J.A., MacKay, J.K., Randall, A.L., Bath, G.E., Balling, M.B., Jensen, B.M., Morris, J.A., Jr., "An Aquaculture Opportunity Area Atlas for the U.S. Gulf of Mexico." NOAA Technical Memorandum NOS NCCOS 299. 545 p. (2021). DOI:10.25923/8cb3-3r66.

Conclusion

If AOA identification advances in the Gulf of Mexico, it must do so in a manner sufficiently protective of the Rice's whale. We urge NMFS to incorporate the practical risk reduction measures recommended in this letter into any forthcoming process to ensure this critically endangered species receives sufficient protections.

Thank you for considering these comments. Should you have any questions, we would be pleased to discuss our concerns in greater detail.

Sincerely,



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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0174
Comment from Center for Food Safety

Submitter Information

Email: mstevenson@centerforfoodsafety.org
Organization: Center for Food Safety

General Comment

The comment is attached along with the first of several entries containing cited studies.

Attachments

8-1-22 Final Comments Gulf AOA

An overview of the environmental risks posed by neonicotinoid

A neonicotinoid insecticide reduces fueling and delays migration in songbirds

2018 - Barret et al Barrett et all Impacts of Marine and Freshwater Aquaculture on Wildlife

CCS in the Gulf

Aquaculture and Ocean Resources Raising Tigers of the Sea

Delfin seeks more time

Entanglement in fishing gear and other installations

DFO study confirms widespread mating of farmed wild salmon

Best Management Practices for Offshore Transportation and Sub-Seabed Geologic Storage of Carbon Dioxide

Climate change is probably increasing the intensity of tropical cyclones

Escape calls high energy salmon sites into question

Environmental DNA

Fishy Fish The Economic Impacts of Escaped Farmed Fish

Fishing for Feed or Fishing for Food Increasing Global Competition for Small Pelagic Forage Fish

Favored use of anti-predator netting

Impacts of Anthropogenic Sound

Frontiers 2017 Emerging Issues of Environmental Concern

Here are the largest recorded farmed Atlantic salmon escapes in history

CENTER FOR FOOD SAFETY

August 1, 2022

Andrew Richard
Regional Aquaculture Coordinator
NMFS Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Submitted Electronically via Regulations.gov

Re: Notice of Intent to Prepare a Programmatic Environmental Impact Statement for the Gulf of Mexico Aquaculture Opportunity Area

Thank you for the opportunity to comment on the National Marine Fisheries Service's (NMFS's) Notice of Intent to Prepare a Programmatic Environmental Impact Statement for the Gulf of Mexico Aquaculture Opportunity Area (AOA).[1] On behalf of themselves and their members, the organizations listed below submit the following comments to identify key issues that NMFS must address before it designates Aquaculture Opportunity Areas in the Gulf of Mexico.

INTRODUCTION

The Center for Food Safety (CFS) is a nonprofit, public interest organization with a mission to protect public health and the environment by curbing the proliferation of harmful food production technologies, such as industrial aquaculture practices, and by promoting sustainable forms of food production. CFS represents over 950,000 members who reside in every state across the country, who support safe, sustainable food production, including members in Gulf states. CFS has long had a specific aquaculture program, dedicated to addressing the adverse environmental and public health impacts of industrial aquaculture, including numerous policy, scientific, and legal staff. In its program, CFS strives to ensure and improve aquaculture oversight, furthering policy and cultural dialogue with regulatory agencies, consumers, chefs, landowners, and legislators on the critical need to protect public health and the environment from industrial aquaculture and to promote and protect more sustainable alternatives.

[1] NMFS, Notice of Intent to Prepare a Programmatic Environmental Impact Statement for the Gulf of Mexico Aquaculture Opportunity Area (June 1, 2022) (NOI).

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www.centerforfoodsafety.org office@centerforfoodsafety.org

Oceanic Preservation Society is a California-based organization that works to inspire, empower, and connect a global community using high-impact films and visual storytelling to expose the most critical issues facing our planet.

Friends of the Earth fights to protect our environment and create a healthy and just world by promoting clean energy and solutions to climate change, keeping toxic and risky technologies out of the food we eat and products we use, and protecting marine ecosystems and the people who live and work near them. This work includes highlighting the dangers of industrial ocean fish farming and supporting sustainable seafood production alternatives. The organization has over 4.7 million members and activists across all 50 states working to make these visions a reality. The organization is part of the Friends of the Earth International federation, a network in 74 countries working for social and environmental justice.

Recirculating Farms is a 501c3 non-profit collaborative of farmers, educators, and activists committed to building an equitable food system from farm to fork. We run ecologically and socially responsible programs, that provide local, affordable food through innovative, eco-efficient methods, rooted in historic practices. Through training, outreach, and advocacy, we advance sustainable farming and create stable jobs in green businesses, in diverse communities, to foster physical, mental, and financial wellness.

Don't Cage Our Oceans is a coalition of national, regional, and local organizations and businesses working to stop offshore fish farming while uplifting values-based sea-food systems led by local communities.

SUMMARY OF COMMENTS

The National Marine Fisheries Service (NMFS) plans to designate one or more locations as Aquaculture Opportunity Areas (AOAs) in the Gulf of Mexico. These designations will identify suitable areas for future offshore finfish, shellfish, macroalgae, or multi-species aquaculture in the Gulf's federal waters. Designation will streamline the approvals of industrial aquaculture operations for up to nine "AOA options" covering 500-2,000-acres in the Gulf, including three sites off the coast of Texas, three off the coast of Louisiana, and three off the coast of Florida to the detriment of the regional economy and the environment.[2] NMFS's proposed designations would also designate areas for commercial offshore aquaculture in the

[2] *Id.*

federal waters of the United States, without proper legal authority and without complying with the relevant federal statutes.

Contrary to NMFS's assertion of authority under Executive Order 13921, the Fifth Circuit has already determined that NMFS does not have statutory authority to set up an unprecedented system of commercial offshore aquaculture in federal waters.[3] On the basis of the lack of authority alone, NMFS must halt the Gulf AOA designations.

If, however, NMFS does proceed with the AOA designations, NMFS must thoroughly assess the myriad impacts of offshore aquaculture on the marine ecosystem, human health, and the economy. NFMS must address the lack of federal authority to regulate aquaculture in federal waters, and take a "hard look" at the proposed AOA designations, its alternatives, all reasonably foreseeable direct, indirect, and cumulative impacts of each proposed alternative (including intertwined socioeconomic impacts), and the feasibility and enforceability of any mitigation measures proposed, as required by the National Environmental Policy Act (NEPA). Additionally, NMFS must also ensure compliance with other federal statutes, including the Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), Magnuson-Stevens Act (MSA), Coastal Zone Management Act (CZMA), Migratory Bird Treaty Act (MBTA), and National Marine Sanctuaries Act (NMSA). Failure to do so would violate federal environmental law.

STATUTORY BACKGROUND

A. Magnuson-Stevens Conservation and Management Act

The Magnuson-Stevens Act (MSA) is the nation's longstanding program aimed at the management and conservation of ocean fish and fishing resources.[4] In order to address threats to wild fisheries and the coastal communities that rely on them, in 1976 Congress passed the MSA to "prevent overfishing, to rebuild overfished stocks, to insure conservation, to facilitate long-term protection of essential fish habitats, and to realize the full potential of the Nation's fishery resources."[5] The MSA aims to conserve and protect these resources through a system for setting catch levels for the nation's wild fisheries.

The MSA created regional fishery management councils, charged[6] with preparing fishery management plans and implementing regulations that are

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[3] *Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv.*, 968 F. 3d 454 (5th Cir. 2020).
[4] 16 U.S.C. § 1801(a); *id.* § 1801(b)(1).
[5] *Id.* § 1801(a)(6); *id.* § 1801(a)(1)-(3).
[6] *Id.* §§ 1851; 1801.

necessary and appropriate to manage and conserve the fisheries under their authority.[7] The Gulf of Mexico Fishery Management Council is one such council, charged with managing fisheries in federal waters in the Gulf of Mexico.

The MSA defines "fishing" as "(A) the catching, taking, or harvesting of fish; (B) the attempted catching, taking, or harvesting of fish; (C) any other activity which can reasonably be expected to result in the catching, taking, or harvesting of fish; or (D) any operations at sea in support of, or in preparation for, any activity described [above]."[8] Under this authority, NMFS may grant fishing permits solely to fishing "vessels," the operators of such vessels, and processors.[9]

The MSA requires that Plans contain conservation measures, minimize impacts to essential fish habitat, use the best scientific information, and be consistent with the Act's national standards, which include preventing overfishing, achieving optimum yield, reasonably allocating fishing privileges among fishermen, and minimizing impacts to fishing communities and bycatch.[10]

The MSA's key regulatory unit is a "fishery," defined as "(A) one or more stocks of fish which can be treated as a unit for purposes of conservation and management and which are identified on the basis of geographical, scientific, technical, recreational, and economic characteristics; and (B) any fishing for such stocks."[11] A key MSA purpose is to prevent "overfishing," defined as "a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield."[12]

The MSA tasks NMFS with the narrow role of reviewing a finalized FMP to ensure that "it is consistent with the national standards, the other provisions of this Act, and any other applicable law."[13] NMFS also has the authority to promulgate regulations to implement an approved FMP within the timeframes set forth in the MSA.[14] The MSA requires that NMFS, in promulgating relevant rules and regulations under the Act, ensure that "irreversible or long-term effects on fishery resources and the marine environment are avoided"[15] and that "a multiplicity of options available with respect to future uses of [fishery] resources."[16] NMFS must

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[7] *Id*. § 1852(h).
[8] *Id*. § 1802(16).
[9] *Id*. § 1853(b)(1).
[10] *Id*. U.S.C. §§ 1801; 1851; 1853; 1854.
[11] *Id*. § 1802(13)(A)- (B).
[12] *Id*. § 1802(34).
[13] *Id.* § 1854(a)(1)(A).
[14] *Id.* § 1854.
[15] *Id.* § 1802(5)(ii).
[16] *Id.* § 1802(5)(iii).

ensure that "national fishery conservation and management programs utilize[], and [are] based upon, the best scientific information available."[17]

B. The National Environmental Policy Act

NEPA establishes the federal government's policy "to use all practicable means and measures to foster and promote the general welfare, create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." [18] Its purpose is to require federal agencies to consider relevant environmental information and to provide the public with that information and an opportunity to comment.[19] NEPA is a procedural statute, enacted to ensure that federal agencies engage in a public process in taking actions, and that they take a "hard look" at the environmental consequences of their decisions.[20]

NEPA and its implementing regulations require federal agencies like NMFS to prepare an Environmental Impact Statement (EIS) regarding all major federal actions "significantly affecting the quality of the human environment."[21] The EIS must be prepared before the agency commits "resources prejudicing selection of alternatives."[22] "Action" broadly includes "[a]doption of official policy, such as rules, regulations, and interpretations."[23] "Major federal action[s]" under NEPA include "activit[ies] or decision[s] subject to Federal control and responsibility."[24] "If any 'significant' environmental impacts might result then an EIS must be prepared before the action is taken."[25]

NEPA prohibits an agency from avoiding significance, and thus from performing an environmental assessment, by dividing a proposed project into component parts.[26] A federal agency should prepare a programmatic EIS for the adoption of new agency programs.[27] A programmatic EIS ensures that an agency's

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[17] *Id.* § 1801(a)(6).
[18] 40 C.F.R. § 1500.1(a); 42 U.S.C. §§ 4331-4370h.
[19] 40 C.F.R. § 1500.1(a).
[20] *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 193-94 (D.C. Cir. 1991); *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 100 (1983).
[21] 42 U.S.C. § 4332(2)(C).
[22] 40 C.F.R. § 1502.2(f).
[23] *Id.* § 1508.1(q)(3)(i).
[24] *Id.* § 1508.1(q).
[25] *Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983).
[26] 40 C.F.R. § § 1502.4(a).
[27] *Id.* § 1502.4(b); *id.* § 1508.1(q)(3)(iii). (definition of major federal action includes "adoption of programs, such as a group of concerted actions to implement a specific

NEPA review is "relevant to the program decision and timed to coincide with meaningful points in agency planning and decision making" and "should be available before the program has reached a stage of investment or commitment to implementation likely to determine subsequent development or restrict later alternatives."[28]

An EIS, including a programmatic EIS, must disclose all the consequences of the proposed action, including the direct, indirect, and cumulative effects.[29] In addition to direct and indirect, a cumulative effect results from the incremental impact of the proposed action "when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency ...undertakes such other actions." [30]

NEPA's implementing regulations define cumulative impact as "effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non–Federal) or person undertakes such other actions" and can result from "individually minor but collectively significant actions taking place over a period of time."[31] In considering cumulative impacts, "an agency must provide some quantified or detailed information; . . . general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definite information could not be provided."[32]

C. The Endangered Species Act

The ESA is the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.[33] Congress's "plain intent . . . in enacting [the ESA] was to halt and reverse the trend towards species extinction,

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policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or executive directive.")

[28] *Id*. § 1502.4.

[29] *Id*. § 1508.1(g).

[30] *Id*. § 1508.1(g)(3).

[31] *Or. Natural Res. Council v. U.S. BLM*, 470F.3d 818 (9th Cir. 2006); 40 C.F.R. § 1508.1(g)(3).

[32] *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402F.3d 846, 868 (9th Cir. 2004) (quoting *Kern v. U.S.*, 284 F.3d 1062, 1075 (9th Cir. 2002); *Muckleshoot Indian Tribe v. U.S. Forest Serv*., 177 F.3d 800, 810 (9th Cir. 1999); *Ctr. For Env't Law & Policy v. U.S. Bureau of Reclamation*, 655 F.3d 1000, 1007 (9th Cir. 2011).

[33] *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978).

whatever the cost."[34] The ESA's "language, history, and structure" make clear that "Congress intended endangered species to be afforded the highest of priorities."[35]

To fulfill the purposes of the ESA, "each Federal agency shall, in consultation with and with the assistance of the [FWS], insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [the critical] habitat of such species."[36] The scope of agency actions subject to consultation is broad, and includes "all activities *or programs* of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies."[37] The ESA's definition of "effect" is also broad, and includes "all consequences to listed species and critical habitats that are caused by the proposed actions, including the consequences of other activities that are caused by the proposed action," including those that "may occur later in time."[38]

The ESA prohibits federal agencies from making "any irreversible or irretrievable commitment of resources" that would "forclos[e] the formulation or implementation of any reasonable and prudent alternative measures" through the consultation process.[39] An agency is required to review its actions "at the earliest possible time."[40]

D. Migratory Bird Treaty Act

Congress passed the Migratory Bird Treaty Act (MBTA)[41] to implement the respective conventions between the United States and Great Britain, Japan, Mexico, and Russia. The MBTA prohibits the "take" of migratory birds, defining "take" as "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any covered migratory bird . . . or any part, nest, or egg of any such bird."[42] The Secretary of the Interior may authorize the otherwise prohibited take of migratory birds through regulations;

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[34] *Id*. at 184
[35] *Id*. at 174; *see also* 16 U.S.C. § 1536(a); 1531(c)(1) ("[A]ll Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authority in furtherance of the purposes of this [Act].").
[36] 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a).
[37] 50 C.F.R. § 402.02 (emphasis added).
[38] *Id*.
[39] 16 U.S.C. § 1536(d).
[40] 50 C.F.R. § 402.14(a).
[41] *Id.* §§ 703 *et seq*.
[42] *Id.* § 703(a).

however, current regulations do not expressly address the incidental take of migratory birds.

E. Marine Mammal Protection Act

All marine mammals are protected under the Marine Mammal Protection Act (MMPA). The MMPA prohibits, with certain exceptions, the "take" of marine mammals.[43] "Take" is defined under the MMPA as "harass, hunt, capture, kill or collect, or attempt to harass, hunt, capture, kill or collect."[44] Pursuant to this law, NMFS is charged with protecting whales, dolphins, porpoises, seals, and sea lions, and the U.S. Fish and Wildlife Service (FWS) is charged with protecting walrus, manatees, otters, and polar bears. NMFS and FWS have promulgated joint implementing regulations.

F. Coastal Zone Management Act

The purpose of the Coastal Zone Management Act (CZMA) is to "preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations."[45] To accomplish these ends, the CZMA encourages the states to draw up "management plans" for their coastal zones and requires that "[e]ach Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs."[46] A federal agency ensures consistency of its proposed actions with state management programs by submitting a "consistency determination to the relevant State agency."[47] Federal agencies must provide State agencies with a consistency determination "at the earliest practicable time in the planning … of the activity."[48] After receipt of the consistency determination, the "State agency shall inform the Federal agency of its concurrence with or objection to the Federal agency's consistency determination."[49]

G. National Marine Sanctuaries Act.

The National Marine Sanctuaries Act (NMSA) prohibits the destruction, loss of, or injury to any sanctuary resource managed under the law or by permit, and requires Federal agencies to consult with NOAA on actions that are likely to

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[43] *Id.* §§ 1361 et seq.
[44] *Id.* § 1362(13).
[45] 16 U.S.C. § 1452(1).
[46] *Id.* § 1456(c)(1)(A).
[47] *Id.* § 1456(c)(1)(C); *see also* 15 C.F.R. § 930.36.
[48] 15 C.F.R § 930.36 (b)(1).
[49] *Id.* § 930.41.

destroy, injure, or cause the loss of any sanctuary resource.[50] If an applicant plans to conduct activities prohibited under the NMSA but authorized under a valid Federal or state lease, permit, license, approval, or authorization, the applicant must obtain a permit from NOAA for the activities and comply with terms and conditions to protect marine sanctuaries.[51]

COMMENTS

I. NMFS lacks legal authority to designate Aquaculture Opportunity Areas in federal waters.

As NMFS is aware, in 2018, CFS, along with other conservation and fishing groups, successfully challenged NMFS's authority to regulate aquaculture in federal waters under the MSA.[52] In August 2020, the Fifth Circuit Court of Appeals affirmed the lower court's decision to vacate the nation's first commercial aquaculture permitting scheme in the Gulf of Mexico and concluded that the MSA "unambiguously precludes the agency from creating an aquaculture regime."[53] This is because "nothing in the [MSA's] definition [of 'fishing'] plausibly suggests the agency has been given authority to regulate aquaculture."[54] Accordingly, NMFS currently lacks the authority to designate AOAs in federal waters, and NMFS's position as the lead agency of the DPEIS process is improper.[55]

NMFS attempts to circumvent this decision in its Atlas by pointing to authority in the National Aquaculture Act of 1980, the NOAA Marine Aquaculture Policy, and Executive Order 13921, "Promoting American Seafood Competitiveness and Economic Growth" (May 7, 2020). But none of these sources provide authority. First, the policy document from 2011 assumes authority from the Magnuson-Stevens Act in direct contradiction to the Fifth Circuit's decision.[56] It states incorrectly that NMFS may regulate aquaculture in the Exclusive Economic Zone through Fishery Management Plans under the MSA.[57] As noted above, the Fifth Circuit definitively determined it may not.

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[50] 16 U.S.C. §§ 1431-1445; 15 C.F.R. pt. 922.
[51] 15 C.F.R. §§ 922.48-49.
[52] *See Gulf Fishermens Ass'n v. NMFS*, 341 F. Supp. 3d 632 (E.D. La. 2018).
[53] *Gulf Fishermens Ass'n v. NMFS*, 968 F.3d 454 (5th Cir. Aug. 2020).
[54] *Id*. at 465.
[55] *See, e.g., AquAlliance v. U.S. Bureau of Reclamation*, 287 F. Supp. 3d 969 (E.D. Cal. 2018).
[56] NOAA Marine Aquaculture Policy, at 3 (2011), https://media.fisheries.noaa.gov/2021-01/2011-noaa-marine-aquaculture-policy.pdf?VersionId=null.
[57] *Id*.

Second, it is black letter law that executive orders cannot confer authority on agencies because the president's powers are executive, not legislative, in nature.[58] Rather, the President's authority to act "must stem either from an act of Congress or from the Constitution itself." *Id*. at 585. As a result, Executive Order 13921 cannot allow NMFS to establish a novel offshore aquaculture industry without statutory authority from Congress.

And third, nothing in the National Aquaculture Act grants authority for NMFS, or to any agency, to designate massive swaths of federal ocean waters for industrial aquaculture. Rather, Congress passed the National Aquaculture Act more than forty years ago only to demonstrate support for the aquaculture industry.[59] Specifically the Act assigned the Department of Agriculture to serve as lead agency in 1) establishing a National Aquaculture Information Center,[60] 2) serving as a central source to monitor and assess the industry,[61] and 3) establishing a National Aquaculture Development Plan.[62] The Act's only provision with potential to even *affect* regulatory oversight was its mandate to the Department of Agriculture to simply *identify* "regulatory constraints" to the industry and produce a report due forty years ago.[63]

The Act barely assigns responsibilities to the Department of Commerce, let alone authority to designate AOAs. The Act requires only consultation with the Department of Commerce for a biennial report on the status of aquaculture,[64] and several studies due 35 years ago.[65] None of these submissions required NMFS to determine locations suitable for industrial aquaculture.

Without *any* plain text in support, NMFS cannot establish its authority to designate AOAs in the Gulf. The courts have already held NMFS lacks this authority to do this and must return to Congress if it is to proceed. NMFS's attempts here to spearhead an entire brand-new industry without pointing to statutory text cannot proceed.[66] Indeed, when Congress passed the National

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[58] *Doe #1 v. Trump*, 957 F.3d 1050, 1062 (9th Cir. 2020) (citing *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 587 (1952) ("[T]he President's power to see that the laws are faithfully executed refutes the idea that he is to be a lawmaker.").
[59] 16 U.S.C. §§ 2801-2810.
[60] *Id*. § 2801(b)(3).
[61] *Id*. § 2804.
[62] *Id*. § 2803(a)(2).
[63] *Id*. § 2808.
[64] *Id*. § 2804(d).
[65] *Id*. § 2804(c)(1)(C), (D) (requiring the Department of Commerce to submit studies by December 31, 1987).
[66] *See FDA v. Brown & Williamson Tobacco Corp*., 529 U.S. 120, 159-160 (2000); *Nat'l Fed'n of Indep. Bus. v. Dep't of Lab., Occupational Safety & Health Admin*., 142 S. Ct. 661, 666, 211 L. Ed. 2d 448 (2022).

Aquaculture Act, it knew how to delegate authority to regulate aquaculture because it had done so under the Water Pollution Control Act, yet it refused to delegate that same authority under the National Aquaculture Act. This lack of text is significant and does not grant permission to regulate a novel industry with unprecedented impacts on ocean waters.

II. NMFS must not ignore the numerous impacts of offshore aquaculture.

Even if NMFS had authority to regulate offshore aquaculture, NMFS must fully assess industrial aquaculture's wide breadth of environmental problems in its DPEIS. This massive designation of large swaths of the Gulf for aquaculture, covering 13,500 acres,[67] will undoubtedly have harmful environmental and economic impacts that any future permit conditions cannot mitigate or avoid. NEPA plainly mandates that NMFS fully assess these problems, or the proposed AOA designation will remain vulnerable to legal challenge.

A. Under NEPA, NMFS must take a hard look at the direct, indirect, and cumulative impacts of the AOA designations in a DPEIS.

NMFS must take a hard look at the direct, indirect, and cumulative impacts of the AOA designations in the DPEIS.[68] NMFS cannot satisfy this requirement with "conclusory assertions that an activity will have only an insignificant impact on the environment."[69] Rather, NMFS must "consider[ ] all foreseeable direct and indirect impacts" and analyze adverse impacts in a manner that "does not improperly minimize negative side effects."[70] In doing so, NMFS must apply "reliable existing data" and ensure the scientific integrity of its analyses.[71]

Here, there is no question that it is "reasonably foreseeable" that NMFS's AOA designations will result in industrial aquaculture facilities in those locations. The Executive Order plainly states its purpose to remove regulatory burdens for offshore aquaculture.[72] The DPEIS therefore must encompass the myriad of environmental and economic impacts industrial aquaculture will have in the Gulf.

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[67] *See* K.L. Riley, *et. al.*, *An Aquaculture Opportunity Area Atlas for the U.S. Gulf of Mexico* (2021), https://doi.org/10.25923/8cb3-3r66 (Atlas).
[68] *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1211 (9th Cir. 1998); 40 C.F.R. § 1508.1(g).
[69] *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 864 (9th Cir. 2004).
[70] *League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Serv.*, 689 F.3d 1060, 1075 (9th Cir. 2012).
[71] 40 C.F.R. § 1502.23.
[72] Exec. Order No. 13,921, 85 Fed. Reg. 28,471 (May 12, 2020).

Furthermore, much of NMFS's DPEIS must assess the cumulative impacts designation of multiple AOAs will have on the Gulf. NEPA defines cumulative impacts as "effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions."[73] Here, multiple AOAs will cumulatively impact species, water quality, public health, and local fishing communities. NMFS must therefore consider cumulative impacts of multiple AOA designations, as well as other activities affecting species and water quality in the Gulf.

1. Offshore aquaculture may contribute to oxygen depletion and harmful algal blooms, exacerbating hypoxia in the Gulf.

First, NMFS must fully assess impacts to water quality from the fish feed, dead fish, and fish feces industrial aquaculture facilities will directly discharge into our waters. Nutrient pollution decreases oxygen levels in our waters, killing off aquatic life and creating low-oxygen "dead zones" and harmful algal blooms.[74] The Gulf of Mexico is already "[t]he largest hypoxic zone in the U.S. coastal waters and the second largest in the world."[75] Red tides (harmful algal blooms) have been documented in the Gulf of Mexico as far back as the 1700s.[76] Many red tides produce toxic chemicals that can kill fish and other vertebrates by affecting their central nervous systems, and can cause serious illness in humans with severe or chronic respiratory conditions.[77] EPA has even stated that aquaculture in the Gulf contributes to algal blooms and costal eutrophication.[78] NMFS must therefore not rely on its cursory dismissal in the Atlas that aquaculture "may afford the opportunity to mitigate nutrient pollution and eutrophication," as aquaculture will more likely exacerbate the problem.[79]

2. NMFS must properly assess discharge of pathogens and parasites.

Second, NMFS must assess the potentially harmful impacts of pathogens and parasites. Housing large populations of animals inevitably breeds pests and disease, which agriculture and aquaculture sectors respond to with a pharmacopeia of

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[73] 40 C.F.R. § 1508.1(g)(3).
[74] Donald Boesch *et al.*, Pew Oceans Comm'n, *Marine Pollution in the United States* 20-22 (2001).
[75] Atlas at 333.
[76] Florida Fish and Wildlife Conservation Comm'n, *Red Tide FAQ* (June 27, 2022), https://myfwc.com/research/redtide/faq/.
[77] *Id*.
[78] Goldburg, et al., *Marine Aquaculture in the United States: Environmental Impacts and Policy Options*, Pew Oceans Commission (2001), https://fsi-live.s3.us-west-1.amazonaws.com/s3fs-public/marine_aquaculture_pew_2001.pdf.
[79] Atlas at 297.

chemicals. Recent research has indicated that the probability of detecting pathogen environmental DNA was 2.72 times higher at active versus inactive salmon farm sites.[80] In 2012, off the coast of Bainbridge Island, a massive viral outbreak in Atlantic salmon net pens led to the deaths of over one million pounds of farmed Atlantic salmon.[81] Because these pathogens and parasites can easily spread to wild fish, NMFS must assess these potential discharges to ensure they do not impact wild populations.

Climate change only exacerbates this possibility of disease spread. Fish are vulnerable to changes in their aquatic habitat, especially, in the case of net pens, where they cannot move away.[82] Not only does climate change increase the risk of escapes, but it can impact the production environment including pathogen prevalence and/or virulence and host susceptibility (immunosuppression) and transmission.[83]

3. NMFS must assess industrial aquaculture's contributions to antibiotic resistance.

Third, NMFS must assess the potential threat to human health and the environment caused by using antibiotics at the proposed AOA designations. The crowded nature of industrial aquaculture facilities will inevitably breed pests and disease for which operators will likely use antibiotics. This use will not only leave residues in seafood, but it will also leach into the ocean, contaminating nearby water and marine life. For example, the salmon aquaculture industry widely uses Emamectin benzoate to treat sea lice, which could result in drug resistance.[84] In Nova Scotia, the use of this antibiotic resulted in "widespread damage to wildlife," including "substantial, wide-scale reductions" in crabs, lobsters and other

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[80] L.N. Frazer, et al., Environmental DNA (eDNA) from multiple pathogens is elevated near active Atlantic salmon farms, Proceedings of the Royal Society (2020), http://dx.doi.org/10.1098/rspb.2020.2010.

[81] Our Sound, Our Salmon, *New Federal Analysis Finds Puget Sound Commercial Net Pens Are Harming Salmon, Steelhead, And Other Protected Fish*, (June 30, 2022), https://www.oursound-oursalmon.org/news/2022/5/18/new-federal-analysis-finds-puget-sound-commercial-net-pens-are-harming-salmon-steelhead-and-other-protected-fish.

[82] Food and Agriculture Organization of the United Nations, *Impacts of Climate Change on Fisheries and Aquaculture*, at 526 (2018), http://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1152846/.

[83] *Id*.

[84] Chun Ting Lam, et. al, *Sea lice exposure to non-lethal levels of emamectin benzoate after treatments: a potential risk factor for drug resistance* (Jan. 22, 2020), *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6976678/.

crustaceans close to marine finfish facilities.[85] In fact, up to 75% of antibiotics used by the industrial ocean fish farming industry are directly absorbed into the surrounding environment.[86] Such impacts could harm marine life throughout the entire region.

4. NMFS must assess impacts from escaped fish.

Fourth, NMFS must take a hard look at the inevitable fish escapes that will result from industrial aquaculture. AOA designations in the Gulf render fish escapes likely due to the ongoing climate crisis, which continues to boost the intensity of storms in the Gulf of Mexico. NMFS admitted in its Atlas that "[t]he Northern Gulf ecoregion is affected by strong tropical cyclones during summer months; severe weather events including thunderstorms and tornadoes are typical for the region as well.[87] NMFS must study these weather events as well as the Gulf's increasingly devastating hurricane season. In 2021, for example, the Atlantic hurricane season featured twenty-one named storms, seven of which became hurricanes, and four of which became major hurricanes.[88] According to NOAA, the long-term averages per year are fourteen named storms, seven hurricanes, and three major hurricanes.[89] Human-induced climate change has led to, and will lead to enhanced risks of intense and economically damaging tropical cyclones and hurricanes.[90] Experts expect the proportion of category 4-5 storms to increase substantially under a warming climate, meaning more and more impending destruction.[91]

Offshore aquaculture facilities remain vulnerable to these extreme weather events, which frequently result in fish escapes. In January 2020, 73,600 salmon escaped from a net pen during a storm in Mowi, Scotland, marking the third major

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[85] Rob Edwards, The Sunday Herald, *Scottish government accused of colluding with drug giant over pesticides scandal* (June 2, 2017), http://www.heraldscotland.com/news/15326945.Scottish_government_accused_of_colluding_with_drug_giant_over_pesticides_scandal/.
[86] United Nations, Fro*ntiers 2017: Emerging Issues of Environmental Concern*, at 15 (2017), https://www.unenvironment.org/resources/frontiers.
[87] Atlas at 15.
[88] Nat'l Hurricane Ctr. and Central Pacific Hurricane Ctr., *Monthly Atlantic Tropical Weather Summary*, https://www.nhc.noaa.gov/text/MIATWSAT.shtml.
[89] *Id*.
[90] Thomas R. Knutson, *et. al.*, *Climate change is probably increasing the intensity of tropical cyclones* 4 (March 2021), https://sciencebrief.org/uploads/reviews/ScienceBrief_Review_CYCLONES_Mar2021.pdf.
[91] *Id*. at 2.

escape in the area since October 2019.[92] From facilities in Norway, a series of storms resulted in approximately four million escaped fish in a single year.[93] Even without extreme weather, in August 2017, an industrial net pen operation maintained by Cooke Aquaculture Pacific, LLC allowed for approximately 160,000 farmed Atlantic salmon to escape into Puget Sound and the Pacific.[94]

In fact, in countries where the majority of marine finfish farms operate, escapes due to weather are not isolated or rare occurrences. In a given year, a single company or facility will likely experience multiple escapes. AquaChile, for example, reported the escape of 787,929 fish in 2013 due to bad weather damaging cages.[95] Five years later, in 2018, 680,000 fish escaped from Marine Harvest Chile due to bad weather.[96] Bakkafrost Faroe Islands, too, reported weather as the cause of 109,515 fish escaping in 2017, Scottish Sea Farm in Scotland, of 258,000 fish escaping in 2000, and Huon Aquaculture in Tasmania of 120,000 fish escaping in 2018.[97] Recognizing the regularity of fish escapes from ocean-based net pens, the U.S. Council on Environmental Quality has stated that it "must be *assumed* that escapes will occur" from net pens, even in the absence of severe weather.[98] With respect to 233 documented fish escapes globally from 1995-2014, severe weather and storms caused 24 percent of the escapes.[99] And of all escapes, those caused by severe weather averaged 36 times as many fish lost compared to other common causes, such as net holes, predator attacks, human error, and undefined equipment failure.[100]

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[92] *Escape calls high energy salmon sites into question*, The Fish Site (Jan. 20, 2020), https://thefishsite.com/articles/mowi-reports-mass-salmon-escape-from-colonsay.
[93] Nat'l Marine Fisheries Serv. Pac. Islands Reg'l Off., Draft Programmatic Env't Impact Statement (DPEIS) (2021).
[94] E. Tammy Kim, *Washington State's Great Salmon Spill and the Environmental Perils of Fish Farming*, The New Yorker (Sept. 13, 2017), https://www.newyorker.com/tech/elements/washington-states-great-salmon-spill-and-the-environmentalperils-of-fish-farming.
[95] Lola Novarro, *Here are the largest recorded farmed Atlantic salmon escapes in history*, IntraFish (Feb. 1, 2019), https://www.intrafish.com/aquaculture/here-are-the-largest-recorded-farmed-atlantic-salmon-escapes-in-history/2-1-388082.
[96] *Id*.
[97] *Id*.
[98] Council for Environment Quality & Office of Science and Technology Policy, Case Study No. 1: Growth-Enhanced Salmon, at 23 (2001), https://clintonwhitehouse5.archives.gov/media/pdf/salmon.pdf; *CEQ and OSTP Assessment: Case Studies of Environmental Regulations for Biotechnology*, https://hygeia-analytics.com/wp-content/uploads/2016/12/RP_RegGETech_CEQ.pdf.
[99] Center for Food Safety, *Like Water and Oil*, at 6 (Oct. 2014), http://www.centerforfoodsafety.org/files/like-water-and-oil-aquaculture_54029.pdf.
[100] *Id*.

These fish escapes impact local stocks in a variety of ways, including predation, competition for food, habitat, and spawning areas, and interbreeding with wild populations of the same fish.[101] For example, Atlantic salmon that have escaped from aquaculture operations in Washington State and British Columbia compete with wild Pacific stocks, and increasing numbers of Atlantic salmon have been observed returning to rivers on the West Coast.[102] In the Atlantic region, the U.S. Fish and Wildlife Service has determined that "Atlantic salmon that escape from farms and hatcheries pose a threat to native Atlantic salmon populations."[103] They also predict that "escapement and resultant interactions with native stocks are expected to increase given the continued operation of farms and growth of the industry under current practices."[104]

Furthermore, reliance on the sterility of farmed fish to prevent interbreeding is never 100% guaranteed; therefore, the "long-term consequences of continued farmed [fish] escapes and subsequent interbreeding . . . include a loss of genetic diversity."[105] Studies have also shown that when farmed and wild fish interbreed their offspring have diminished survival skills, reduced fitness, and potentially altered life history characteristics such as altered timing of development events.[106] Researchers in Ireland, for example, have found that the interactions of farm escapees and wild salmon reduced the overall fitness of wild species and could lead to the extinction of wild populations.[107]

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[101] DPEIS *supra* n. 93, at 158.
[102] Goldburg, et al., *Marine Aquaculture in the United States: Environmental Impacts and Policy Options*, Pew Oceans Commission (2001), https://fsi-live.s3.us-west-1.amazonaws.com/s3fs-public/marine_aquaculture_pew_2001.pdf.
[103] Endangered and Threatened Species; Proposed Endangered Status for a Distinct Population Segment of Anadromous Atlantic Salmon (Salmo salar) in the Gulf of Maine, 64 Fed. Reg. 62627, 62635 (Nov. 17, 1999).
[104] *Id*.
[105] Fisheries and Oceans Canada, *Newfoundland and Labrador Region, Stock Assessment of Newfoundland and Labrador Atlantic Salmon* (2016), *available at* http://waves-vagues.dfo-mpo.gc.ca/Library/40619655.pdf ("Genetic analysis of juvenile Atlantic Salmon from southern Newfoundland revealed that hybridization between wild and farmed salmon was extensive throughout Fortune Bay and Bay d'Espoir (17 of 18 locations), with one-third of all juvenile salmon sampled being of hybrid ancestry."); *see also* Mark Quinn, CBC News, *DFO study confirms 'widespread' mating of farmed, wild salmon in N.L.* (Sept. 21, 2016), https://www.cbc.ca/news/canada/newfoundland-labrador/farmed-salmon-mating-with-wild-in-nl-dfo-study-1.3770864.
[106] This occurs because farmed fish selected for aquaculture are bred to thrive in controlled, rather than wild, environments. Congressional Research Service, Open Ocean Aquaculture, at 7 (Aug. 9, 2010), https://crsreports.congress.gov/product/pdf/RL/RL32694/19.
[107] *Id*.

Even when aquaculture operations source broodstock from the wild, escape poses a threat to wild stocks.[108] The longer a broodstock line is developed (i.e., bred to improve growth, quality, and disease resistance, etc.) the greater the chance that their genes may begin to drift from their wild counterparts.[109]

NMFS also notes in its recent biological opinion on aquaculture in the Puget Sound, that efforts to recapture escaped fish result in significant bycatch.[110] These efforts continue despite the likely resultant harm and infeasibility of recapture.[111] In Puget Sound, a "normal" year without a large-scale failure resulting in a massive fish escape results in thousands of escaped fish (0.3% of total farmed fish) wreaking havoc on local wild fish populations and habitats.[112] These escaped fish can also travel into tributary rivers and streams, resulting in longer-term, and wider-ranging habitat effects.[113]

5. NMFS must fully assess cumulative impacts on federally listed species, and other wildlife.

Fifth, NMFS must assess impacts on species. NMFS's Atlas reveals that aquaculture facilities placed in the proposed AOAs will overlap with critical habitat for the giant manta ray, the green sea turtle, and the loggerhead sea turtle.[114] Additional endangered and threatened species known to overlap with the proposed AOAs include five species of sea turtles, two whale species, the Nassau grouper, the smalltooth sawfish, the oceanic whitetip shark, and the gulf sturgeon,[115] while additional federally protected marine mammals include nine dolphin species and ten whale species.[116] The west study area overlaps with 18 essential fish habitats, the central study area with 23, and the eastern study area with nine.[117]

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[108] DPEIS, *supra* n. 93, at 171.
[109] *Id*.
[110] NMFS, Reinitiation of Endangered Species Act Section 7(a)(2) Biological Opinion, and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Environmental Protection Agency's Approval of Washington State Department of Ecology's Sediment Management Standards (Feb. 16, 2022), https://wildfishconservancy.org/wp-content/uploads/2022/04/2022_02-16_FinfishRearingReinit_WCRO-2018-00286-3.pdf.
[111] *Id.* at 105.
[112] *Id*. at 126.
[113] *Id.* at 62-63.
[114] *Id*. at 294.
[115] *Id*. at 31-32.
[116] *Id*. at 32.
[117] *Id*. at 295-96.

Industrial aquaculture may impact these species in numerous ways. Namely, entanglement from ropes and lines may harm endangered species and other wildlife in the proposed area. This risk is significant considering the large scale of this aquaculture management program and current estimations that entanglement in fishing gear already results in the deaths of some 300,000 marine mammals each year.[118] Net pens could also entrap wildlife, ESA-listed species, and other marine mammals and result in them drowning.[119] Of the 53 whale entanglements documented by NMFS in 2020, 29 of confirmed live and dead cases (or, fifty-five percent) involved commercial or recreational fishing gear.[120]

Furthermore, NMFS must assess anthropogenic noise pollution from these facilities and the boats that serve them. Noise pollution can harm marine mammals by masking their communications at almost all frequencies these mammals use.[121] "Masking" refers to a "reduction in an animal's ability to detect relevant sounds in the presence of other sounds."[122] Such an impairment to communication could also result in harmful impacts to these protected species, which NMFS must take into account.

Moreover, the facilities' propensity to act as fish aggregating devices (FADs) further exacerbates risks of entanglements and vessel strikes as species are drawn to the facilities. Industrial aquaculture may attract predators as a result of fish escapes, food drifting outside the pens, and other animals aggregating around the pens.[123] An increase in the presence of predators and other species could lead to adverse effects such as injury or death. The FAD effect may result in more frequent encounters with protected species, which could increase the likelihood of injury from structures or equipment associated with the facility.[124]

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[118] DPEIS, *supra* n. 93, at 22.
[119] Atlas at 10.
[120] NOAA, *2020 Large Whale Entanglement Report* 9 (June 2022), https://media.fisheries.noaa.gov/2022-06/National%20Report%20on%20Large%20Whale%20Entanglements%20Confirmed%20in%20the%20United%20States%20in%202020.pdf.
[121] *See e.g.,* Hildebrand, J.A., Impacts of Anthropogenic Sound, in Marine Mammal Research: Conservation Beyond Crisis (Reynolds, J.E. III et al., eds. 2006); Weilgart, L., 2007, The Impacts of Anthropogenic Ocean Noise on Cetaceans and Implications for Management, 85 Canadian J. Zoology 1091-1116 (2007).
[122] Ocean Noise and Marine Mammals, National Research Council, at 96 (2003), http://www.nap.edu/openbook.php?record_id=10564&page=R1.
[123] Luke T. Barrett, et al., *Impacts of marine and freshwater aquaculture on wildlife: a global meta-analysis*, Reviews in Aquaculture (2018).
[124] *Id.*

NMFS must also assess light pollution from the facilities and other coastal zone development that offshore aquaculture will require.[125] Light pollution harms species by affect mating cycles and habits, as well as rendering fish more active at night and increasing their exposure to predators.[126] Light pollution at night can also disorient marine birds.[127]

6. NMFS must take a hard look at cumulative impacts on coral.

NMFS must also fully assess impacts on coral. Three of the nine potential AOAs are within 1 to 3 km of hundreds of unique hardbottom areas (natural reefs).[128] Hardbottom areas include a range of animal and plant life including a thin veneer of live corals.[129] NMFS itself has expressed increasing concern that these fragile deepwater coral reefs and their associated resources may be in serious danger.[130] Due to the proximity of the AOAs to these critically fragile habitats, NMFS must sufficiently analyze the cumulative impacts of the proposed projects to hardbottom areas.

7. NMFS must consider impacts from marine debris.

Offshore aquaculture projects have the potential to generate significant marine debris including plastic waste. Industrial shellfish operations create water pollution with toxic plastic and Styrofoam from cages, rack-and-bags, trays, surface or floating structures, or long lines suspended over the tide bed. For example, geoduck (clam) aquaculture uses PVC tubes stuck into the bed at a rate of 42,000 tubes per acre, which are covered with plastic "anti-predator" netting. Storms can dislodge the plastic gear used in production or it can break down into microplastics, adding more plastics to our oceans and beaches and acting as a poison pill to marine species that ingest microplastics coated in whatever pollutants are in the water (including the very shellfish grown for human consumption).[131]

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[125] Atlas at 203.
[126] Forschungsverbund Berlin, *Light Pollution Makes Fish More Courageous* (Sept. 21, 2018), https://www.sciencedaily.com/releases/2018/09/180921113456.htm.
[127] *Id.*
[128] Atlas at 243, 260, 277.
[129] *Id*. at C-14.
[130] NOAA, *Lessons from the Deep: Exploring the Gulf of Mexico's Deep-Sea Ecosystems Educators' Guide* 11-12 (2010), https://oceanexplorer.noaa.gov/edu/guide/gomdse_edguide.pdf.
[131] Bendell, L.I., *Favored use of anti-predator netting (APN) applied for the farming of clams leads to little benefits to industry while increasing nearshore impacts and plastics pollution*, Marine Pollution Bulletin (2015).

8. NMFS must consider impacts from pesticide use.

NMFS must also consider pesticide use in industrial shellfish production, which creates its own suite of risks and adverse impacts. Pesticide use to clear away wild species and allow intensive shellfish farming has harmful impacts on biodiversity.[132] In Washington state, shellfish growers have historically used pesticides to kill native burrowing shrimp, recently changing from carcinogenic carbaryl to experiments with the neonicotinoid imidacloprid.[133] Currently, Washington permits shellfish growers to use the herbicide, imazamox, to control Japanese eelgrass.[134] If used at facilities in the AOAs, these pesticides and herbicides would not only kill the target species — they would also harm other invertebrates, fish, and the species that rely on these species as a food source.

9. NMFS must assess greenhouse gas emissions from increased vessel traffic.

NMFS must also assess climate change impacts from increased vessel traffic. The AOA designations could potentially result in dozens of offshore industrial aquaculture operations, with the farthest area 133 kilometers offshore.[135] These facilities will inevitably increase vessel traffic, and as a result, emit more harmful greenhouse gases.

10. NMFS must assess impacts on federal marine sanctuaries.

NMFS must also assess impacts on national marine sanctuaries. NMFS's southeast study area overlaps with the Florida Keys National Marine Sanctuary, and its western study area overlaps with the Flower Garden Banks National

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[132] *See e.g.*, CFS, *Water Hazard 2.0: Continued Aquatic Contamination by Neonicotinoid Insecticides in the U.S.* (2017), http://bit.ly/32rDyov; Morrissey, C. A., et al., *Neonicotinoid contamination of global surface waters and associated risk to aquatic invertebrates: a review*, Environment International 74:291-303; Margaret Eng et al., A neonicotinoid insecticide reduces fueling and delays migration in songbirds (2019), Science, https://science.sciencemag.org/content/365/6458/1177; Goulson, D., *An overview of the environmental risks posed by neonicotinoid insecticides*, 977-87, Journal of Applied Ecology, 50(4) (2017).

[133] Wash. Dept. of Ecology, *Burrowing shrimp control (Imidacloprid)*, https://www.ecology.wa.gov/Regulations-Permits/Permits-certifications/Aquatic-pesticide-permits/Burrowing-shrimp-control-Imidacloprid.

[134] Mallory Gruben, *Ecology reissues permit for 'low toxcitiy' Japanese eelgrass herbicide*, The Daily News (March 7, 2020), https://tdn.com/news/local/ecology-reissues-permit-for-low-toxcitiy-japanese-eelgrass-herbicide/article_b8b79f47-6f7b-5676-8ba6-0014b3ef63b2.html.

[135] Atlas at 305.

Marine Sanctuary.[136] These two marine sanctuaries provide critical protection for coral reefs and habitats for a variety of marine species,[137] which industrial aquaculture will inevitably impact.

11. NMFS must assess cumulative impacts of oil and gas exploration in the Gulf.

NMFS must also consider how its AOA designations will cumulatively impact the Gulf along with Department of the Interior's proposed five-year program for offshore oil and gas leasing.[138] The proposed program would allow for 10 lease sales over five years in the Central and Western Gulf of Mexico planning areas and considers the potential for about 95 million acres of lease sales throughout the Gulf.[139]Numerous LNG pipeline activities (both new construction and expansion projects) have also been occurring throughout the Gulf and must be considered.[140] NMFS should consider these conflicting uses of the Gulf and avoid overlap in its designations.

12. NMFS must consider cumulative impacts of carbon capture and storage in the Gulf.

NMFS must also consider how its AOA designations will cumulatively impact the Gulf along with the burgeoning carbon capture and storage industry. For years, companies have identified the Gulf as a prime spot to deploy carbon capture and storage (CCS) technology.[141] This industry is reasonably foreseeable, as Exxon, along with fourteen other chemical companies, drillers and refiners, including Dow Inc. and Chevron Corp., have pledged to support large-scale carbon capture from facilities in the Houston area, aiming to capture and store roughly 50 million metric tons of CO2 per year by 2030. NMFS should consider impacts of the CCS industry along with its designations.

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[136] *Id*. at 86.
[137] *Id*. at C-7.
[138] Interior Department Invites Public Comment on Proposed Five Year Program for Offshore Oil and Gas Leasing (July 1, 2022), https://www.doi.gov/pressreleases/interior-department-invites-public-comment-proposed-five-year-program-offshore-oil-0.
[139] *Id*.
[140] *See, e.g.,* Scott DiSavino, *Delfin seeks more time to build US Gulf of Mexico LNG export plant* (July 21, 2022), https://www.reuters.com/business/energy/delfin-seeks-more-time-build-us-gulf-mexico-lng-export-plant-2022-07-21/.
[141] Heather Richards & Carlos Anchondo, *CCS in the Gulf: Climate solution or green washing?* (Jan. 31, 2022), https://www.eenews.net/articles/ccs-in-the-gulf-climate-solution-or-green-washing/; *see also Best Management Practices for Offshore Transportation and Sub-Seabed Geologic Storage of Carbon Dioxide* (Dec. 2017), https://espis.boem.gov/final%20reports/5663.pdf.

13. NMFS must not overlook impacts to local economies and markets for wild fish.

NMFS must also take a hard look at economic harms to coastal communities, food producers (on land and at sea), and other marine-reliant industries. Commercial and recreational fishing account for a large portion of the Gulf Coast economy.[142] Members of the wild-capture fishing industry have collectively voiced their trepidations over attempting to coexist with the marine aquaculture industry, stating that "this emerging industrial practice is incompatible with the sustainable commercial fishing practices embraced by our nation for generations and contravenes our vision for environmentally sound management of our oceans."[143] The operations located in the proposed AOAs could close off and essentially privative large swaths of the ocean that are currently available for numerous other commercial purposes, including fishing, tourism, shipping, and navigation. Finally, given what we know about economies-of-scale and the business models of modern agriculture and terrestrial food production, we can only expect a similar trend at sea: that is, the marine finfish aquaculture industry could easily push out responsible, small-scale seafood producers and crop growers. This dynamic equates to an alarming imbalance of power, and allows corporations to dominate business structures, production methods, and management policies within the industry. Giving corporations disproportionate influence over food production also severely limits consumer choices.[144]

a. NMFS must acknowledge the possibility of physical displacement of local fishermen.

NMFS has already acknowledged potential impacts on commercial fishing operations in its Atlas.[145] There, NMFS explicitly acknowledged that commercial fishing "supports many communities along the Texas coastline, providing

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[142] Atlas at 45.

[143] Open letter to Members of the U.S. House of Representatives and Senate, Dec. 4, 2018, re: Opposition to marine finfish aquaculture in U.S. waters, *available at* http://foe.org/DecFishFarmingSignOnLetter/.

[144] *See* Undercurrent News, *World's 100 Largest Seafood Companies* (Oct. 7, 2016), https://www.undercurrentnews.com/report/undercurrent-news-worlds-100-largest-seafood-companies-2016/; Tom Seaman, Undercurrent News, *World's top 20 salmon farmers: Mitsubishi moves into second place behind Marine Harvest* (June 29, 2016), https://www.undercurrentnews.com/2016/06/29/worlds-top-20-salmon-farmers-mitsubishi-movesinto-second-place-behind-marine-harvest/; Aslak Berge, Undercurrent News, *These are the world's 20 largest salmon producers* (July 30, 2017), http://salmonbusiness.com/these-are-the-worlds-20-largest-salmon-producers/.

[145] Atlas at 45.

employment, income, and revenue from seafood sales," "supports the entire network of communities along the bayous leading to the Gulf of Mexico oceanic basin," and recognized "a long tradition and a persistent presence of commercial fishing nested in communities like Cedar Key, Tarpon Springs, Clearwater, St. Petersburg, and Key West [. . .] [and] recogniz[ed] that the commercial fleet and infrastructure are in decline."[146] In light of this acknowledgement, NMFS's DPEIS must also assess the cumulative impacts of the expansion of aquaculture projects on the activities of local commercial fishermen over time. The change in the availability of resources and wild fish stocks due to the prolonged presence of aquaculture may drastically alter the patterns and routes of commercial fishermen. Changing migration patterns, species displacement, or hypoxia may force wild fish and fishermen into new waters. Therefore, NMFS must also address these cumulative future impacts on the physical displacement of local fishermen.

b. NMFS must assess harms to markets for wild fish.

NMFS must also assess the AOA designation's impact on the value of local catch. Aquaculture corporations in the Gulf could potentially flood local markets with farmed versions of native species, thus decreasing the price of the same wild stocks and consequently harming local fishermen. For example, salmon farming and its resulting constant supply of farmed salmon in the global market drastically reduced the price of salmon—wild or farmed—worldwide.[147] Indeed, rather than complementing wild-capture fisheries in the Gulf,[148] offshore aquaculture in the Gulf may flood the market with an abundance of farmed finfish—resulting in net loss to the local fishermen.

c. NMFS must fully assess impacts to wild caught fisheries.

NMFS must also assess the AOA designations' impacts on wild caught fisheries. Rather than replacing wild fish consumption, farmed fish production in other regions has instead exacerbated the diminishing populations of wild fish. This will be especially true in offshore aquaculture farming carnivorous fish species native to the Gulf, such as red snapper, which require a diet high in fishmeal and oil often derived from wild-caught fish stocks such as mackerel, herring, menhaden, and anchovies.[149] The industry's ever-growing demand for feed jeopardizes the

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[146] *Id*. at 303-6.
[147] R. Naylor *et al., Salmon Aquaculture in the Pacific Northwest: A global Industry with Local Impacts*, 45 Environment, at 18-39 (Oct. 2003).
[148] NOAA, Press Release, NOAA Announces Regions for First Two Aquaculture Opportunity Areas under Executive Order on Seafood (Aug. 20, 2020).
[149] Albert Tacon & Marc Metian, *Fishing for Feed or Fishing for Food: Increasing Global Competition for Small Pelagic Forage Fish*, 38 Ambio, at 294-302 (Sept. 2009); R. Naylor & M. Burke, *Aquaculture and Ocean Resources: Raising Tigers of*

survival of wild stocks and disrupts the balance of the marine ecosystem.[150] The removal of wild fish to produce fish feed reduces the natural supply of food for the farmed fish's wild counterparts, as well as seabirds and other marine life.[151] Ten years ago, the FAO reported that most reduction fisheries were already fully exploited and some were considered overexploited, meaning they were already producing catches at or near the maximum sustainable level, and they risked depletion of stocks if catches were not reduced.[152]

Specifically in the Gulf of Mexico, there is a long history of concern about the impacts of the menhaden fishery on the aquatic food web. It is primarily a "reduction" fishery, meaning the fish are pressed into fishmeal and fish oil for use in various products, like pharmaceuticals and notably pet and fish feeds.[153] Locally called "pogies," these fish are at the base of the food chain and are important prey for a wide range of marine life, including marine mammals such as dolphins, sea birds, and predatory fish, which will be harmed by their depletion.[154] Further, the industry admits it has a bycatch rate of up to 2.8%, with no catch cap and no regular monitoring, which causes major disruptions to the Gulf ecosystem.[155] Further development of industrial aquaculture will only increase the demand for pogies and contribute to these impacts on Gulf species and the ecosystem in its entirety.

B. Any mitigation measures must have adequate explanation and support.

While NMFS can use terms in a DPEIS to prevent harm from an impact, the "feasibility of mitigation measures is not self-evident," and the record still needs to support the conclusion that the measures attached to the DPEIS will actually have the intended effect.[156] NMFS must support the conclusion that their proposed

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the Sea, 30 Annual Review of Envtl. Resources, 185-218 (2005); Brian Halweil, *Farming Fish for the Future* 20 (Worldwatch Inst. 2008).

[150] Changing Markets Foundation, Until the Seas Run Dry (2019), http://changingmarkets.org/wp-content/uploads/2019/04/REPORT-WEB-UNTILL-THE-SEAS-DRY.pdf.

[151] Tacon & Metian, *supra* n.149; Marine Aquaculture Task Force, Woods Hole Oceanographic Inst., *Sustainable Marine Aquaculture: Fulfilling the Promises, Managing the Risks* 16 (27).

[152] FAO, *The State of the World Fisheries* (2012), http://www.fao.org/docrep/016/i2727e/i2727e.pdf.

[153] Monterey Bay Aquarium, Atlantic Menhaden, Gulf Menhaden 8 (June 4, 2015), https://www.seafoodwatch.org/-/m/0590004cbae64cc593dbd54530940c56.pdf.

[154] *Id*. at 50.

[155] *Id*. at 24.

[156] *See O'Reilly v. U.S. Army Corps of Engineers*, 477 F.3d 225, 234 (5th Cir. 2007) (holding that the agency did not provide a rational basis for determining that the

conditions will render significant impacts from oxygen depletion, pathogen spread, antibiotic resistance, fish escapes, federally listed species and other wildlife, and local economies insignificant. Failing to properly support their conclusions renders them arbitrary and capricious and contrary to law.

III. NMFS must initiate formal programmatic ESA Section 7 consultation on the proposed AOA designations and prepare a Biological Assessment.

NMFS acknowledges that numerous listed species may be present throughout the Gulf, with critical habitat even overlapping with the proposed AOAs, yet NMFS has yet to consult with the Services or prepare a biological assessment as required by 16 U.S.C. § 1536(c)(1). The ESA regulations plainly state that "[a]ny request for formal consultation may encompass … a number of similar individual actions within a given geographical area or a segment of a comprehensive plan. This does not relieve the Federal agency of the requirements for considering the effects of the action as a whole."[157] Accordingly, NMFS must engage in programmatic consultation regarding impacts of these AOA designations on federally protected species throughout the Gulf of Mexico.

As detailed above, offshore aquaculture facilities present serious environmental concerns, both on an individual level and cumulatively. Based on this fact and the ESA regulations, it is therefore unequivocal that consultation on NMFS's specific site designations or on each individual future permit does not relieve NMFS of its duty to consult on the AOA designations at a programmatic level. While AOA site-specific or project-specific consultation is also clearly required for any project that may affect listed species, NMFS cannot justify its potential designations of multiple AOAs in the Gulf based on that later, site-specific consultation. Relying only on site-specific consultation fails to capture the cumulative impacts that the Gulf AOA designations may have on listed species. The only way to ensure that the designations will not jeopardize listed species is to complete a programmatic consultation – otherwise the Services are not provided the opportunity to identify which facilities may be problematic for listed species, and to provide reasonable and prudent measures to minimize harm, such as measures to ensure that NMFS gathers and analyzes sufficient data to prevent jeopardy to listed species.

USACE has adequately complied with NEPA because "the EA provides only cursory detail as to what those measures are and how they serve to reduce those impacts to a less-than-significant level.").

[157] *Nat'l Wildlife Fed'n v. Brownlee*, 402 F. Supp. 2d 1, 10 (D.D.C. 2005) (citing 50 C.F.R. § 402.14(c)).

A. Numerous endangered and threatened species would be threatened by AOA designations.

The Atlas documents numerous threatened and endangered species vulnerable to the impacts of offshore aquaculture facilities in the Gulf of Mexico. Critical habitat for the giant manta ray, the green sea turtle, and the loggerhead sea turtle overlaps with the study areas,[158] while NMFS lists eleven other endangered and threatened species known to occur in NMFS's study areas.[159] These species include numerous other endangered whale species, several sea turtle species, the Nassau grouper, the smalltooth sawfish, the oceanic whitetip shark, and the gulf sturgeon.[160]

B. NMFS's AOA designation poses a risk of direct, indirect, and cumulative adverse impacts on listed species.

AOA designations would thus pose a risk of direct and cumulative adverse harm to these ESA listed species, which, as discussed above, must be analyzed through formal consultation. In addition to cumulative impacts discussed above, discharges from offshore aquaculture operations typically contain organic and inorganic solids, nutrients, and chemicals used in the prevention and treatment of various diseases. Any of these discharges could impair the water quality in the receiving waters and harm endangered species, especially when discharged from multiple facilities. At elevated concentrations, chlorine and ammonia are toxic to aquatic life, while discharged nutrients could cause periodic extreme decreases in dissolved oxygen. These impacts must be assessed on a programmatic level to ensure the protection of endangered species.

C. NMFS cannot commit resources to the proposed project without first consulting with the Services.

Under Section 7(d) of the ESA, NMFS may not act until the agency consults with the Services, and the Services concur with NMFS's determination. Section 7(d) of the ESA provides that, once a federal agency initiates consultation on an action under the ESA, the agency, as well as any applicant for a federal permit, "shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section."[161]

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[158] Atlas at 294.
[159] *Id*. at 25.
[160] *Id*. at 31-32.
[161] 16 U.S.C. § 1536(d).

Since the purpose of Section 7(d) is to maintain the environmental status quo pending the completion of consultation, Section 7(d) prohibitions remain in effect while NMFS completes its programmatic consultation. These prohibitions must also remain in effect throughout the consultation period and until the federal agency has satisfied its duty under Section 7(a)(2) to insure that the action will not result in jeopardy to listed species or adverse modification of critical habitat. Hence, NMFS may not designate AOAs until it has complied with the statutory mandates of the ESA.

D. NMFS must consult with the Services for a Biological Opinion prior to designating AOAs.

Due to the far-reaching nature of the proposed designations and the multiple impacts on species throughout the Gulf, NMFS will also need to prepare a Biological Opinion (BiOp). The result of formal consultation is the preparation of a BiOp by the expert wildlife agencies (FWS and NMFS) which provide their analysis of the best available scientific data on the status of the species and how it would be affected by the proposed designations.[162] Additionally, a BiOp must include a description of the proposed action, a review of the status of the species and critical habitat, a discussion of the environmental baseline, and an analysis of the direct and indirect effects of the proposed action and the cumulative effects of reasonably certain future state, tribal, local, and private actions.[163]

E. Incidental take statements must be prepared on an individual level.

While formal programmatic consultation is required, it would be improper and unlawful for any incidental take statement to be issued as part of the Services' biological opinion.[164] Numerous different ESA-protected species and their

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[162] When preparing a biological opinion, the consulting agency must (1) "review all relevant information," (2) "evaluate the current status of the listed species," and (3) "evaluate the effects of the action and cumulative effects on the listed species," 50 C.F.R. § 402.14, using "the best scientific and commercial data available," 16 U.S.C. § 1536(a)(2); *see also Greenpeace v. Nat'l Marine Fisheries Serv.*, 80 F. Supp. 2d 1137, 1149-50 (W. D. Wash. 2000) (remanding biological opinion where agency failed to "meaningfully analyze" the risks to the species and the key issues).

[163] *See* Consultation Handbook at 4-14 to 4-31.

[164] It is well-settled that programmatic biological opinions do not require an incidental take statement where those opinions explicitly mandate future site-specific consultations for take authorizations. *See Gifford Pinchot Task Force v. USFWS,* 378 F.3d 1059, 1067–68 (9th Cir.) *am. by* 387 F.3d 968 (9th Cir. 2004); *Forest Serv. Employees for Env't Ethics*, 726 F. Supp. 2d at 1224–1225; *W. Watersheds Project v. BLM*, 552 F. Supp. 2d 1113, 1139 (D. Nev. 2008); *Swan View Coal., Inc. v. Turner,* 824 F. Supp. 923, 934–35 (D. Mont. 1992). Here, should the Services issue a no-jeopardy opinion on the AOA designations, it should not be

designated critical habitats are likely to be adversely affected. It remains unclear whether sufficient protections at the programmatic level will be implemented to ensure that listed species are not jeopardized by cumulative impacts from activities covered by these designations.

Moreover, there is no feasible way that the Services can predict, let alone quantify, the amount of incidental take of currently-listed species that will result from offshore aquaculture facilities throughout the Gulf of Mexico in the years to come. Further, the Services could not possibly analyze or quantify incidental take for future-listed species that will be adversely affected by the proposed AOA designations. Rather, incidental take can only occur, and can only be analyzed and appropriately permitted, at the site-specific and species-specific level. Therefore, the programmatic consultation should acknowledge that it is a framework programmatic consultation under which any incidental take will be subsequently authorized under a permit-specific Section 7 or Section 10 process.[165]

IV. NMFS must also comply with the Marine Mammal Protection Act.

Due to potential "takes" of marine mammals, NMFS must obtain proper authorization before finalizing any AOA designations. Offshore aquaculture facilities approved as a result of these designations could result in harassment of nineteen marine mammal species in the proposed areas.[166] Thus, NMFS must complete an accurate assessment of risks posed by designations to marine mammals.

V. NMFS must comply with the MBTA.

NMFS has also failed to consider whether the AOA designations may result in the "take" of migratory birds, despite the fact that migratory birds will likely interact with offshore aquaculture facilities. Now, pursuant to the MBTA, NMFS must undertake this evaluation before finalizing AOA designations.

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accompanied by an incidental take statement because all incidental take should only be authorized, if at all, via a Section 10 permit or Section 7 consultation.

[165] *See* 80 Fed. Reg. 26,832 (May 11, 2015) (adding definition of "framework programmatic action" to 50 C.F.R. § 402.02 and adding 50 C.F.R. § 402.14(i)(1)(6) on incidental take statements not being required at the programmatic level where subsequent actions resulting in incidental take will be separately consulted on). *See also* Interagency Handbook at 4-50-51 (stating that in programmatic consultations that cannot determine anticipated levels of incidental take "the incidental take statement should indicate that the issue will be reexamined during the consultation process for site-specific actions under the umbrella of the larger planning document.").

[166] Atlas at 26.

VI. NMFS must ensure protection of essential fish habitat, as required under the MSA.

The MSA established procedures to identify, conserve, and enhance Essential Fish Habitat (EFH) for species regulated under a federal Fisheries Management Plan.[167] The MSA requires consultation with NMFS on all actions, including proposed actions, which may adversely affect EFH.[168] To "adversely affect" means any impact that reduces the quality and/or quantity of EFH, and may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey or reduction in species fecundity), site-specific, or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.[169] When NMFS is consulted on impacts to EFH under the MSA, it must "recommend to such agency measures that can be taken by such agency to conserve such habitat," and, should the action agency fail to adopt those measures, it must explain its reasons for not following those measures.[170]

Here, before NMFS can finalize any designations, NMFS must ensure that none of the proposed sites will adversely affect the EFH for all federally managed fish species. NMFS's Atlas identifies 18 essential fish habitats in the west study area, 23 in the central study area, and nine in the eastern study area,[171] rendering this consultation all the more essential.

VII. NMFS must consult on National Marine Sanctuaries.

The National Marine Sanctuaries Act established procedures to ensure protection of National Marine Sanctuaries. NMFS's southeast study area overlaps with the Florida Keys National Marine Sanctuary, while the western study area overlaps with the Flower Garden Banks National Marine Sanctuary.[172] These two marine sanctuaries protect coral reefs and provide habitat for a variety of marine species.[173] As a result NMFS must consult with itself regarding whether the designations are likely to destroy, injure, or cause the loss of any sanctuary resource.[174]

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[167] 16 U.S.C. §§ 1801 *et seq.*
[168] *Id.* § 1855(b)(2).
[169] 50 C.F.R. § 600.810.
[170] 16 U.S.C. § 1855(4).
[171] Atlas at 295-96.
[172] *Id.* at 86.
[173] *Id.* at C7.
[174] 16 U.S.C. § 1434(d); *see also Greenpeace Foundation v. Mineta*, 122 F.Supp.2d 1123, 1127 n.5 (D. Haw. 2000) (noting that where "NMFS is both the acting and consulting agency ... NMFS consults with itself").

VIII. Designating the AOAs without consistency determinations would violate the Coastal Zone Management Act.

NMFS has yet to submit a CZMA consistency determination to the pertinent state agencies so that they and the public can comment on the designations' consistency with the Gulf states' Coastal Management Programs. This failure to make such a determination violates the CZMA and its regulations. NMFS's regulations specify that federal agencies must provide state agencies with a consistency determination "at the *earliest* practicable time in the planning … of the activity."[175] Submitting consistency determinations to the states after NMFS's NEPA review and eventual designation plainly delays this determination beyond the "earliest" time in the process. Allowing state agencies to review the NMFS consistency determination is vital, given how the proposed designations likely conflict with the protections currently provided in the Gulf states' Coastal Management Programs.

CONCLUSION

For the foregoing reasons, NMFS should halt its AOA designations until proper federal oversight has been established. If NMFS does proceed, the agency must comply with the mandates of NEPA, the MMPA, the MSA, the ESA, the NMSA, the CZMA, and the MBTA.

Thank you for your consideration of these comments.

Sincerely,

Center for Food Safety

Don't Cage Our Oceans Coalition

Recirculating Farms Coalition

Oceanic Preservation Society

Friends of the Earth

[175] 15 C.F.R § 930.36 (b)(1) (emphasis added).

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Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

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Comment from Center for Food Safety

Submitter Information

Email: mstevenson@centerforfoodsafety.org
Organization: Center for Food Safety

General Comment

This entry contains the second round of studies referenced in Center for Food Safety's comment.

Attachments

Interior Department Invites Public Comment on Proposed Five Year Program for Offshore Oil and Gas Leasing

Light pollution makes fish more courageous

lessons from the deep

Marine Aquaculture in the United States Environmental Impacts and Policy Options

Menhaden-Atlantic-Gulf

Neonicotinoid contamination of global surface waters and associated risk

NOAA Announces Regions for First Two Aquaculture Opportunity Areas under Executive Order on Seafood

NOAA Aquaculture Policy

Newfoundland and Labrador Region

National Report on Large Whale Entanglements Confirmed in the United States in 2020

Open letter

New Federal Analysis Finds Puget Sound Commercial Net Pens Are Harming Salmon Steelhead And Other Protected Fish

NOAA-Harmful Algal Blooms

one hundred Largest Seafood Companies

Red Tide FAQ

Pacific Islands Region DPEIS

Reinitiation of Endangered Species Act Section 7(a)(2) Biological Opinion-Washington

PUBLIC SUBMISSION

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0176
Comment from Center for Food Safety

Submitter Information

Email: mstevenson@centerforfoodsafety.org
Organization: Center for Food Safety

General Comment

This entry contains the third round of studies cited in Center for Food Safety's comment.

Attachments

State of World Aquaculture

The Impacts of Anthropogenic Ocean Noise on Cetaceans and Implications for Management

Scottish government accused of colluding with drug giant over pesticides scandal

Washington State Great Salmon Spill and the Environmental Perils of Fish Farming

Sustainable Marine Aquaculture

Water Hazard 2.0 Continued Aquatic Contamination by Neonicotinoid Insecticides in the U.S.

The State of World FIsheries and Aquaculture

Sea lice exposure to non lethal levels of emamectin benzoate after treatments a potential risk factor for drug resistance

These are the world largest salmon producers

This is the first page of the Don't Cage Our Oceans petition with 8,272 signatures. The complete list of signatories is available online at www.regulations.gov.

Last	First	Zip/Postal	Zip4	CountryCo	Comment
Johnson	Gregg	95126-500	5006	US	I am writing to voice my opposition to aquaculture facilities everywhere due to the risks that they pose to local fishing communities, our environment, and endangered species. These industrial fish farms directly discharge a whole host of pollutants into public waters including anti-foulants, excess feed, and untreated fish waste. Inevitable fish escapes could spread pathogens and parasites to wild species. They attract and harm predators and other wildlife. These factory fish farms are also leading to the demise of our wild fishing communities by placing downward pressure on fishing prices and creating competition for limited marine space.
Wu	Blake	94549	3712	US	I am writing to voice my opposition to aquaculture facilities everywhere due to the risks that they pose to local fishing communities, our environment, and endangered species. These industrial fish farms directly discharge a whole host of pollutants into public waters including anti-foulants, excess feed, and untreated fish waste. Inevitable fish escapes could spread pathogens and parasites to wild species. They attract and harm predators and other wildlife. These factory fish farms are also leading to the demise of our wild fishing communities by placing downward pressure on fishing prices and creating competition for limited marine space.
Evans	Esmé	93101	2228	US	I am writing to voice my opposition to aquaculture facilities everywhere due to the risks that they pose to local fishing communities, our environment, and endangered species. These industrial fish farms directly discharge a whole host of pollutants into public waters including anti-foulants, excess feed, and untreated fish waste. Inevitable fish escapes could spread pathogens and parasites to wild species. They attract and harm predators and other wildlife. These factory fish farms are also leading to the demise of our wild fishing communities by placing downward pressure on fishing prices and creating competition for limited marine space.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0178
Comment from Friends of Animals

Submitter Information

Email: rhuss@friendsofanimals.org
Organization: Friends of Animals

General Comment

Please see attached comment from Friends of Animals. Thank you for the opportunity to comment.

Attachments

FoA - Aquaculture Operations in Federal Waters

~~EXPLOITERS~~
FRIENDS
of ANIMALS

August 1, 2022

Submitted electronically via www.regulations.gov

Andrew Richard
Regional Aquaculture Coordinator
National Marine Fisheries Service
Southwest Regional Office
263 13th Avenue South
St. Petersburg, Florida, 33701

RE: NOAA-NMFS-2022-0044 - Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico

Dear Mr. Richard:

Friends of Animals submits this comment in response to the National Oceanic and Atmospheric Administration's (NOAA) "Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings," [hereinafter, "Notice"] issued on June 1, 2022. Friends of Animals is a non-profit international advocacy organization incorporated in the state of New York since 1957. Friends of Animals has nearly 200,000 members worldwide. Friends of Animals, and its members, seek to free animals from cruelty and exploitation around the world, and to promote a respectful view of non-human animals, both free-living and domestic.

After publication of the Notice, NOAA held virtual scoping sessions on June 8, June 16, and July 12, 2022. Friends of Animals participated in the July 12, 2022, scoping session, during which NOAA made a presentation and the public was given the opportunity to make comments. Friends of Animals requests that the National Marine Fisheries Service (NMFS), a division of NOAA and acting on NOAA's behalf, thoroughly analyze the impacts of aquaculture operations in the Gulf of Mexico and consider the significant adverse impact such operations will have on the captively raised fish, the human and aquatic environment, and aquatic and non-aquatic species.

FACTUAL BACKGROUND

The Notice states that NMFS is drafting a Programmatic Environmental Impact Statement (hereinafter "PEIS") in order to comply with the directive in Presidential Executive Order 13921, Promoting American Seafood Competitiveness and Economic Growth (May 7, 2020).[1] Executive Order 13921 requires the Secretary of Commerce "to identify geographic areas containing locations suitable for commercial aquaculture."[2] Through the PEIS, NMFS intends to designate multiple Aquaculture Opportunity Areas ("AOAs") in federal waters of the Gulf of Mexico "and [review] the types of impacts that could be associated with future proposed aquaculture projects in those locations."[3] The Notice states that aquaculture in federal waters is necessary in order to "address the increasing demand for seafood; facilitate long-term planning for marine aquaculture development; and address interests and concerns regarding offshore marine aquaculture siting."[4]

Prior to issuing the Notice, NOAA drafted "An Aquaculture Opportunity Area Atlas for the U.S. Gulf of Mexico" (the "Atlas").[5] NOAA identified nine potential options for AOA locations in Federal waters in the Gulf of Mexico: three off the coast of Texas, three off the coast of Louisiana, and three off the coast of Florida.[6] The nine locations range in size from 500 acres to 2000 acres.[7] NMFS will also consider a "no action" alternative in addition to the nine AOA options which may be considered.[8] Final aquaculture locations may be identified after NMFS completes the PEIS and a Record of Decision is issued, with the process expected to be completed within two (2) years of the date of the Notice of Intent.

Despite NOAA's desire to consider aquaculture operations for social, economic, and environmental purposes, there are numerous environmental concerns which NMFS must thoroughly analyze before designating final AOAs for proposed aquaculture operations. Importantly, NOAA is without the necessary congressional or regulatory authority to regulate aquaculture operations in federal

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[1] National Oceanic and Atmospheric Administration, *Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in the Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings*, 84 Fed. Reg. 33124 (June 1, 2022).
[2] *Id*. at 33125.
[3] *Id*.
[4] *Id*.
[5] Riley KL, et al, 2021. *Aquaculture Opportunity Atlas for the U.S. Gulf of Mexico*. NOAA Technical Memorandum NOS NCCOS 299. 545 p. DOI:0.25923/8cb3-3r66.
[6] 84 Fed. Reg. 33124
[7] *Id*.
[8] *Id*.

waters.[9] Accordingly, Friends of Animals urges NMFS to select the alternative in which no action is taken and the status quo remains, in which private corporations seeking to conduct aquaculture operations in federal waters must follow a permitting process through the Environmental Protection Agency (EPA). Friends of Animals encourages NMFS to follow statutory authority stating specifically that NMFS is "responsible for protecting habitats, vulnerable species, and sustainable fisheries, and thus has responsibility for considering, preventing, and mitigating potential adverse environmental impacts of proposed and existing marine aquaculture development and operational plans."[10]

DISCUSSION

As noted above, NMFS is without authority to regulate aquaculture operations in the federal waters of the Gulf of Mexico. However, even if Congress had granted such authority, NMFS must thoroughly analyze several issues during the PEIS process. Structurally, open ocean aquaculture operations use containment pods that are exposed to rough waters and strong currents, increasing the risk of damage to the structure and an increased possibility of escape by captive fish.[11] Escaped fish will then enter the marine ecosystem, competing for food and spawning grounds with the wild species already inhabiting that marine region.[12] Aquaculture operations can further adversely affect the marine environment by acting as a "fish aggregating device" (FAD), in which the captive fish draw other marine life. This poses a risk to the marine ecosystem and to the affected marine life, which can catch disease spread from the captive fish, get tangled in the net pen, and be struck by aquatic traffic in the area. Thus, the aquaculture operations will drastically destabilize the fragile marine environment.

It is also highly likely that open ocean aquaculture operations, conducted by private corporations, will place a significant emphasis on maximizing corporate profits, leading to higher stocking and population densities of fish in the aquaculture pods.[13] A result of higher population densities is an ocean environment that is polluted with fish waste and uneaten fish food, as the waste flows directly into the marine environment.[14] High population densities within the pens also have the potential for an increased need for the use of pesticides and antibiotics to protect

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[9] *Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv*., 341 F. Supp. 3d 632 (E.D. La. 2018), *aff'd Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv*., 968 F.3d 454 (5th Cir. 2020).

[10] Riley KL, et al, 2021. *Aquaculture Opportunity Atlas for the U.S. Gulf of Mexico*. NOAA Technical Memorandum NOS NCCOS 299. 545 p. DOI:0.25923/8cb3-3r66, p. 3.

[11] Yale Environment 360, *Can Deepwater Aquaculture Avoid the Pitfalls of Coastal Fish Farms*, January 25, 2018, https://e360.yale.edu/features/can-deepwater-aquaculture-avoid-the-pitfalls-of-coastal-fish-farms.

[12] *Id.*

[13] *Id.*

[14] *Id.*

the captive fish, which increases the threat of injury and possible human bacterial resistance as the pollutants reach the human environment.[15]

The adverse effects of open ocean aquaculture operations can also stretch well beyond the scope of the specific operation's aquatic environment. The fish produced and raised in the aquaculture pens will possibly be fed fish meal that is wild-sourced fish.[16] The result of such feeding methods is an operation in which the amount of wild-sourced fish used for forage is greater than the actual amount of fish raised in the aquaculture pen, known as the "Fish In – Fish Out" ratio.[17] The inevitable result of cultivating captive fish in such a manner is overfishing of the wild-sourced forage stock and a disruption of the marine food chain that goes far beyond the immediate location of the aquaculture pen.

NMFS should also thoroughly analyze the adverse effects aquaculture operations will have on the water quality of the federal waters in which the proposed AOAs are located. It is well documented that aquaculture operations have a significant adverse effect on the aquatic environment and its inhabitants, as evidenced by the connection between nutrients resulting from aquaculture operations and the harmful algal blooms prevalent off the coast of Florida, which can lead to hypoxic conditions.[18] Of additional concern are the hypoxic conditions seen in the lower Mississippi River region of the Gulf of Mexico, which also stand to be exacerbated by aquaculture operations in federal waters.[19] Placing high-volume aquaculture operations in critical and pristine regions of the Gulf of Mexico will only increase the likelihood that already existing adverse water conditions will be exacerbated.

The consequences of aquaculture operations are well documented, and NMFS should not authorize aquaculture operations in the Gulf of Mexico. As NMFS is aware, aquaculture operations must comply with various federal laws.[20] In drafting the PEIS, NMFS must thoroughly analyze prospective operations at the selected AOA sites. In thoroughly analyzing the environmental impacts of aquaculture operations at the proposed AOA locations, and deciding the scope of the future PEIS, NMFS

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[15] *Id.*

[16] *Id.*

[17] Earth Journalism Network, *Environmental Problems of Aquaculture*, April 18, 2014, https://earthjustice.net/resources/environmental-problems-of-aquaculture.

[18] Monitoring and Studying Harmful Algae, https://www.ncei.noaa.gov/news/monitoring-and-studying-harmful-algae (accessed July 8, 2022); *see also*, Rosenstiel School of Marine and Atmospheric Science, *New Study Links Red Tides and Dead Zones Off West Coast of Florida*, April 25, 2022, https://news.miami.edu/rsmas/stories/2022/04/new-study-links-red-tides-and-dead-zones-off-west-coast-of-florida.html.

[19] Northern Gulf of Mexico Hypoxic Zone, *Mississippi River/Gulf of Mexico Hypoxia Task Force, EPA* www.epa/gov/ms-htf/northern-gulf-mexico-hypoxic-zone.

[20] 84 Fed. Reg. 33127

must consider the significant adverse effects addressed above and the strict compliance that is required with, at a minimum, the following laws applicable to aquaculture.

A. Under the National Environmental Policy Act, NMFS Must Take a Hard Look at the Impacts Aquaculture Operations Will Have On the Gulf of Mexico Marine Environment.

In 1970, Congress enacted the National Environmental Policy Act (NEPA), which requires an agency to prepare an environmental impact statement (EIS) prior to taking action significantly affecting the quality of the human environment. The EIS must analyze: "(i) the environmental impact of the proposed action; (ii) any adverse environmental effects which cannot be avoided should the [proposed action] be implemented; [and] (iii) alternatives to the proposed action."[21] When drafting an EIS, as NMFS has indicated it intends to do through the PEIS, the agency must evaluate all potential environmental impacts of the proposed action.[22] To meet this obligation, NMFS must: (1) analyze all reasonable alternatives to the proposed action; and (2) identify and disclose to the public all foreseeable impacts of the proposed action, including direct, indirect, and cumulative impacts.[23]

Based upon the Notice and the Atlas, NMFS is not exploring alternative methods by which to conduct aquaculture operations. Instead, NMFS is looking only at the nine prospective AOA locations for possible siting of future aquaculture operations. Any decision regarding actual aquaculture sites, if any, will be made after completion of the final PEIS and issuance of the Record of Decision.[24] NMFS is also considering that no action be taken as an alternative allowing the status quo to remain.[25] As noted in the Atlas, the status quo shows that there are already "several aquaculture projects in development across the Gulf of Mexico," placing into question whether further degradation through additional aquaculture operations is a reasonable alternative for NMFS to consider.[26] Friends of Animals strongly encourages NMFS, following a thorough analysis in the PEIS process, to consider the "no action" alternative as the most reasonable alternative.

Regardless of whether an agency prepares Environmental Assessment (EA) or an EIS, it must take a "hard look" at the impacts of an action prior to making a final decision.[27] NEPA requires the agency to adequately evaluate all potential

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[21] 42 U.S.C. § 4332(2)(C).
[22] *See, id.*
[23] *See id*. § 4332(2); *see also* 40 C.F.R. §§ 1508.7-1508.8, 1508.9(b).
[24] 84 Fed. Reg. 33126.
[25] *Id*.
[26] Riley KL, *et al*, 2021. *Aquaculture Opportunity Atlas for the U.S. Gulf of Mexico*. NOAA Technical Memorandum NOS NCCOS 299. 545 p. DOI:0.25923/8cb3-3r66, p. 10-11.
[27] *Baltimore Gas & Elec. Co. v. Natural Res. Defense Council*, 462 U.S. 87, 97-98 (1983).

environmental impacts of proposed actions.[28] To satisfy this obligation, the agency must identify and disclose to the public all foreseeable impacts of the proposed action, including direct, indirect, and cumulative impacts.[29] Here, those foreseeable and impacts include: 1) contributing to existing hypoxic conditions in the Gulf of Mexico, specifically at the mouth of the Mississippi River; 2) contributing to harmful algal blooms off the Florida coast; and 3) increasing aquatic pollution through the unavoidable discharge of pollutants and contaminants from the aquaculture containment pods. It is imperative, and a statutory obligation, that NMFS use the PEIS to take a "hard look" at the impacts of aquaculture operations at the nine AOA options. Friends of Animals requests that after NMFS' thorough review in the PEIS process, the agency select "no action" alternative as the most beneficial to the human environment and the marine ecosystem.

B. NMFS Must Thoroughly Analyze Potential Harm to Listed Species and Critical Habitats Protected by the Endangered Species Act and Threatened by Harmful Algal Blooms, Hypoxic Conditions, and Increased Water Pollution Resulting from Aquaculture Operations.

Congress passed the Endangered Species Act (ESA) in 1973 to promote "the conservation of threatened and endangered plants and animals and the habitats in which they are found."[30] In enacting the ESA, Congress intended "to halt and reverse the trend towards species extinction, whatever the cost."[31] The ESA requires federal agencies to consult with NOAA or the U.S. Fish and Wildlife Service (FWS) to ensure agency actions do not jeopardize a species or "result in the destruction or adverse modification of designated critical habitat of such species."[32] The ESA also prohibits the taking of a listed animal without a permit. "Taking" is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."[33]

In the Atlas, NMFS identified numerous species that are found in the area of the proposed AOAs.[34] However, this list should hardly be exhaustive, and NMFS should not limit itself strictly to those species and habitats identified in the Atlas. For instance, on its website, NOAA lists nineteen different types of turtles, fish,

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[28] *See* 42 U.S.C. § 4332(2)(C).
[29] *See* 42 U.S.C. § 4332(2); *see also* 40 C.F.R. §§ 1508.7-1508.8.
[30] Environmental Protection Agency, *Summary of the Endangered Species Act*, https://www.epa.gov/laws-regulations/summary-endangered-species-act (last updated September 28, 2021).
[31] *Tennessee Valley Authority v. Hill*, 437 U.S. 153 (1978).
[32] Environmental Protection Agency, *Summary of the Endangered Species Act*, https://www.epa.gov/laws-regulations/summary-endangered-species-act (last updated September 28, 2021).
[33] 16 U.S.C. §1532(19).
[34] Riley KL, *et al*, 2021. *Aquaculture Opportunity Atlas for the U.S. Gulf of Mexico*. NOAA Technical Memorandum NOS NCCOS 299. 545 p. DOI:0.25923/8cb3-3r66, p. 31-32.

sharks, rays, coral, and whales as endangered.[35] Closer to shore on the Florida coast, NMFS must also evaluate the effect aquaculture operations will have on protected manatee populations, whose diet, consisting largely of sea grass, can be severely impacted by the harmful algal blooms so prevalent in Florida's coastal waters.[36] Additionally, the Gulf region includes multiple fish and marine wildlife sanctuary areas that would be highly susceptible to changing water quality from aquaculture operations. NMFS should thoroughly analyze how aquaculture operations in the proposed AOA locations will affect any habitats in the region, without limiting itself to those listed species and habitats in the Atlas.

There is no question that placing large-scale aquaculture operations in the Gulf of Mexico will harm species and ecosystems. The aquaculture operations will unavoidably result in increased fish waste, harmful algal blooms, and increased hypoxic conditions, which will threaten the aquatic environment and ecosystems for the marine and non-marine species in the region, including species and critical habitats protected under the ESA. NMFS must thoroughly analyze the adverse consequences aquaculture operations will have on species and habitats in the regions in which the AOAs are located. Ultimately, the best alternative is that in which no action is taken and the status quo remains.

C. In the PEIS, NMFS Must Thoroughly Analyze the Discharge of Pollutants Prohibited by the Clean Water Act and Resulting from Aquaculture Operations.

In 1972, Congress amended the Federal Water Pollution Control Act of 1948, resulting in what is commonly referred to as the Clean Water Act (CWA).[37] The CWA applies to all waters of the United States, including "relatively permanent, standing or continuously flowing bodies of water 'forming geographic features' that are described in ordinary parlance as 'streams,' 'oceans, rivers, and lakes.'"[38]

The CWA prohibits discharges of any pollutant into navigable waters without a permit, including from aquaculture operations.[39] The scope of the CWA extends to

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[35] National Oceanic and Atmospheric Administration, *Threatened and Endangered Species List – Gulf of Mexico* https://www.fisheries.noaa.gov/southeast/consultations/threatened-and-endangered-species-list-gulf-mexico, (accessed July 25, 2022).

[36] Florida Fish and Wildlife Conservation Commission, *Living with Florida Manatees,* https://myfwc.com/conservation/you-conserve/wildlife/manatee/ (accessed July 25, 2022); *see also,* WTSP – Channel 10, *Manatees are dying at a staggering rate: Everything you need to know about them,* (January 25, 2022), https://www.wtsp.com/article/life/welcome-to-florida/where-to-see-manatees-florida/67-25fdf234-6815-425d-819d-91af51e3875f.

[37] Environmental Protection Agency, *Summary of the Clean Water Act*, https://www.epa.gov/laws-regulations/summary-clean-water-act (last updated July 6, 2022).

[38] *Rapanos v. United States*, 547 U.S. 715, 739 (2006).

[39] 33 U.S.C. § 1251.

"the oceans out to 200 miles."[40] Under the CWA, the EPA manages the National Pollutant Discharge Elimination System (NPDES), which issues permits to lawfully discharge pollutants and "ensure[s] that the discharge does not hurt water quality or people's health."[41] Unreasonable degradation of the marine environment is prohibited.[42] In determining whether unreasonable degradation exists, EPA evaluates: (1) significant adverse changes in ecosystem diversity, productivity, and stability of the biological community within the area of discharge and surrounding biological communities; (2) threat to human health through direct exposure to pollutants or through consumption of exposed aquatic organisms, or (3) loss of aesthetic, recreational, scientific or economic values, which is unreasonable in relation to the benefit derived from the discharge.[43]

In drafting the PEIS, NMFS must take into account the requirements of the CWA, as the location of the AOA options will clearly fall within navigable waters of the United States. The aquaculture operations will undoubtedly result in discharge of pollution into the marine environment, as waste from the captive fish will easily travel away from the permeable pod structures and spread with the currents into the marine environment. It is also highly likely that the discharge will degrade the marine environment, as noted through the increased possibility of exacerbated hypoxic zones and harmful algal blooms. Such environmental conditions are already well-documented in the regions in which the proposed AOAs are located. While NMFS is reviewing the locations and requiring compliance with the permitting process, the best alternative, and the one NMFS should most strongly consider, is the alternative in which no action is taken and the status quo remains.

D. Under the Marine Mammal Protection Act, NMFS Must Thoroughly Analyze Any Harassment of Marine Mammals Resulting from Aquaculture Operations in the Gulf of Mexico.

Congress passed the Marine Mammal Protection Act (MMPA) in 1972 to establish a national policy to prevent the decline of marine mammal species and population stocks caused by human activities.[44] All marine mammals are protected under the MMPA. The goal of the MMPA is to ensure that human activities do not diminish the marine mammal species and populations to a point at which such species and populations are no longer a significant functioning element of the

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[40] Environmental Protection Agency, *NPDES Permit Basics*, https://www.epa.gov/npdes/npdes-permit-basics (last updated June 21, 2022).
[41] *Id*.; *see also*, Environmental Protection Agency, *Summary of the Clean Water Act*, https://www.epa.gov/laws-regulations/summary-clean-water-act (last updated July 6, 2022).
[42] *See generally*, 33 U.S.C. § 1251, *et seq*.
[43] 40 C.F.R. § 125.121(e).
[44] NOAA Fisheries, *Laws & Policies: Marine Mammal Protection Act*, www.fisheries.noaa.gov/topic/laws-policies#marine-mammal-protection-act (viewed July 8, 2022) (*citing,* U.S.C. 16 § 1361, *et seq*.).

ecosystem in which they exist.[45] Regulation and oversight related to the MMPA is within the authority of NOAA Fisheries, the FWS, and the Marine Mammal Commission.[46] The goal of the MMPA was to maintain healthy ecosystems through "optimum sustainable populations."[47] A "take" of a marine mammal under the MMPA was defined as conduct that would be to "harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill" any marine mammal.[48] The MMPA was amended in 1992 to address emergency responses for marine mammals in distress and record-keeping of mortality events involving marine mammals.[49]

In 1994, the MMPA was amended again to statutorily define the term "harassment." Following this amendment, proposed conduct regulated by the MMPA is "any act of pursuit, torment, or annoyance, which has the potential to: 1) injure a marine mammal or marine mammal stock in the wild (Level A harassment); or 2) disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).[50]

Aquaculture operations in the Gulf of Mexico will inevitably affect marine mammals. While the aquaculture operations may not involve direct pursuit, the risk of annoyance to a variety of marine mammals is high. Marine mammals in the affected Gulf region include multiple species of whales and dolphins, as well as manatees along the Florida coast. NMFS must thoroughly analyze the effect on marine mammals that placing aquaculture operations in the federal waters of the Gulf of Mexico will have. The alternative that will best protect the marine mammals, and support compliance with the MMPA, is that in which no action is taken, and the status quo remains, which NMFS should strongly consider when drafting the PEIS.

E. NMFS Lacks Authority to Regulate Aquaculture Operations in Federal Waters Under the Magnuson-Stevens Fishery Conservation and Management Act.

Congress passed the Magnuson-Stevens Fishery Conservation and Management Act (MSA) in 1976 to provide for the conservation and management of fisheries. Congress enacted the MSA in response to fishing practices that were destructive to coastal and aquatic resources and related economies.[51] The purpose was to "manage the fishery resources off the coasts of the United States."[52] The MSA

[45] *Id*.
[46] *Id.*
[47] *Id*.
[48] *Id.*
[49] *Id.*
[50] *Id.*
[51] 16 U.S.C. § 1801(a).
[52] 16 U.S.C. § 1801(b)(1).

gives NOAA authority to regulate the fisheries of the United States, including all "catching, taking, or harvesting of fish."[53] The role of the NMFS under the MSA is to approve or disapprove of Fishery Management Plans (FMP) submitted by the Fishery Management Council created for that particular aquatic region.[54] However, the MSA only grants NMFS authority to issue regulations involving "fishing," which does not include open water aquaculture operations.[55]

In 2016, NMFS promulgated regulations authorizing a new plan to allow permits for aquaculture facilities in the Gulf of Mexico.[56] However, the Gulf Fishermens Association filed a lawsuit in the U.S. District Court for the Eastern District of Louisiana, arguing that the MSA did not grant NMFS authority to regulate aquaculture, making the 2016 regulations invalid.[57] NMFS argued that the use of "harvesting" within the definition of "fishing" allowed the agency to promulgate regulations. However, the court disagreed and held that NMFS may not stretch the definition of "harvesting" to include aquaculture.[58] On appeal, the Fifth Circuit Court of Appeals upheld the decision, determining NMFS has no regulatory authority over aquaculture operations in federal waters because there was no legislative action granting the agency such authority.[59] NOAA and NMFS are aware of this ruling, as specifically noted in the Atlas.[60] Absent legislative action, NMFS does not have regulatory authority over aquaculture in federal waters, as supported by the Fifth Circuit.

The absence of regulatory authority, as specifically held by the Fifth Circuit, should be strongly considered by NMFS when drafting the PEIS. Without regulatory authority, NMFS faces the possibility of expending valuable resources only to make decisions the agency has no authority to make. In order to avoid such an outcome, the only reasonable alternative is that in which no action is taken and the status quo remains, as any regulatory action NMFS takes will be invalid.

CONCLUSION

Friends of Animals thanks NOAA for the opportunity to comment on the scope of review and analysis NMFS will use when drafting the PEIS for aquaculture operations in federal waters of the Gulf of Mexico. Friends of Animals believes NMFS should not proceed with any action because the agency does not have authority to

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[53] 16 U.S.C. § 1802(16)(a).
[54] 16 U.S.C. § 1801(b)(5).
[55] 16 U.S.C. § 1802(16).
[56] NOAA Fisheries, *NOAA expands opportunities for U.S. aquaculture* (June 11, 2016), https://www.fisheries.noaa.gov/media-release/noaa-expands-opportunities-us-aquaculture.
[57] *Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv*., 341 F. Supp. 3d 632 (E.D. La. 2018).
[58] *Id.* at 638; *see also*, 16 U.S.C.§ 1802(16).
[59] *Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv*., 968 F.3d 454 (5th Cir. 2020).
[60] Riley KL, *et al*. 2021. *Aquaculture Opportunity Atlas for the U.S. Gulf of Mexico*. NOAA Technical Memorandum NOS NCCOS 299. 545 p. DOI:0.25923/8cb3-3r66, p. 6.

regulate aquaculture and because siting aquaculture operations in the Gulf of Mexico will have significant negative environmental impacts. However, if NMFS proceeds with a PEIS, it must thoroughly analyze all potential impacts of the prospective aquaculture operations, both to the Gulf of Mexico region in general and to the prospective AOA locations. NMFS must analyze thoroughly all potential environmental impacts, including the effects on both the marine and human environment. Siting aquaculture facilities in the Gulf of Mexico will be extremely detrimental to the marine life in the area selected for such operations, as well as the marine ecosystem and coastal communities of West Florida, Louisiana, and Texas' Gulf Coast. Accordingly, Friends of Animals strongly urges NMFS to pursue the "no action" alterative.

Thank you for the opportunity to comment, and please contact me if you have any questions or concerns.

Sincerely,
Rob Huss
Senior Attorney
Friends of Animals
Wildlife Law Program
rhuss@friendsofanimals.org

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0179
Comment from Barbour, Holly

Submitter Information

Name: Holly Barbour
Address:
Sarasota, FL, 34239
Email: hbarbour3@comcast.net

General Comment

Please don’t proceed with fish farming off our Gulf Coast. We have already lost a record number of manatees due to the polluted waters killing off their food supply, and the waste from fish farming would only worsen the situation. Furthermore, there is a growing awareness that farmed fish are relatively lacking in nutrition compared to wild-caught fish and that they are a source of microbial infections in humans. However there is also an increasing concern about wild-caught fish, their suffering, and the impact that fishing has on other aquatic life. It’s time for us to come into the 21st century and realize that our best path forward — including economically— is to choose plant-based alternatives for our own health, for the health of our waters, and for the stewardship of all aquatic life.

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0180
Comment from Winer, Jed

Submitter Information

Name: Jed Winer
Address: United States,

General Comment

Fish farms should NOT be allowed in the Gulf of Mexico.

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0181
Comment from Manna Fish Farms, Inc.

Submitter Information

Email: donna@mannafishfarms.com
Organization: Manna Fish Farms, Inc.

General Comment

See attached file(s)

Attachments

MFF Manna Fish Farms GOM AOA PEIS public comment

Manna Fish Farms, Inc.
22 Inlet Road West, Hampton Bays, NY 11946
Office phone: 631-653-9100
Email: donna@mannafishfarms.com
Fax: 631-995-9107

Donna Lanzetta
CEO and Founder

July 31, 2022

Mr. Andrew Richard
Regional Aquaculture Coordinator
NMFS, Southeast Regional Office
St. Petersburg, Florida 33701

RE: Gulf AOA PEIS, NOAA-NMFS-2022-0044

Dear Mr. Richard,

Manna Fish Farms is actively involved in the EPA's NPDES permitting process for a proposed offshore marine aquaculture operation in the Gulf of Mexico, and we have the unique ability to provide both industry and region-specific comments on NOAA Fisheries' Programmatic Environmental Impact Statement (PEIS) for Aquaculture Opportunity Areas (AOAs) in the Gulf of Mexico (GOM). As we await the likely development of an Environmental Impact State for Manna's pending offshore project, we feel it is our responsibility to submit comments regarding the PEIS for the GOM AOAs during this public scoping process. The following comments address several of the eleven prompts listed in NOAA's Notice of Intent document.

"The scope of the PEIS analysis, including the range of reasonable alternatives and how many or which locations should be considered and evaluated"

- Land-based recirculating aquaculture systems (RAS) are <u>not</u> reasonable alternatives to an offshore marine aquaculture facility. We recognize the value of RAS in certain applications and will utilize it ourselves for fingerling production. However, growing fish to market size in RAS at a commercial scale is an entirely different form of aquaculture, with different challenges and a completely different business model.
- Reasonable alternatives might be considered to include ¾ or ½ scale farms, but these alternatives do potentially compromise the economic viability of a farm. To maintain economic viability, alternatives might necessitate the regulatory possibility of expanding beyond the initial scaled down production limits.
- Manna Fish Farms' mission and core values embody the <u>responsible</u> development of offshore aquaculture. As such, the plans for our offshore farms involves a phased deployment approach. Our plan is to begin operations at a small scale (i.e. two net pens) for the first year, and to progressively increase the quantity of deployed net pens until we reach our intended full-production quantity. This small initial phase and

incremental expansion will serve as proof of concept and demonstrate a lack of harmful impact. Incremental expansion will maximize the efficacy of water quality and benthic monitoring by creating data points that can be directly attributed to the phases of farm expansion. These incremental data points will allow the farm, as well as the regulatory agencies, to quantify environmental impact at every juncture and halt operations if pre-determined limits are exceeded. The PEIS should consider a similar phased approach in its evaluation of reasonable alternatives, and as a way to address concerns of offshore aquaculture facilities impact on water quality and benthic habitat.

- All of the proposed AOA locations should be considered and evaluated, however, all but one of them are more than 30 nm offshore. This 30 nm+ distance is beneficial in terms of minimizing use conflicts nearshore, but the distance will impact the economic viability of the operations. For example, it would take approximately 3 hours to reach a site 30 nm offshore when traveling at the NMFS recommended speed of 10 knots in order to minimize vessel-strikes. That results in 6 hours of travel, effectively consuming half a workday just in travel time. Additional federal water sites within 30 nm of shore should be considered, identified and evaluated. Sites beyond 60 nm would likely be financially prohibitive and/or require entirely different methods of operation to accommodate the significant distance from shore.
- The 50 m "necessary water depth for storms" is applied too narrowly in the identification of suitable sites for offshore marine aquaculture in the GOM. A depth of 50 m is a minimum ideal depth for submersible net pen culture in open ocean locations, however with proper equipment and mooring design, 40 m could likely be viable as well. Other forms of offshore marine aquaculture (i.e. macroalgae cultivation) could theoretically be designed to withstand storm conditions in sites shallower than 30 m. Additional federal water sites with depths shallower than 50 m should be identified and evaluated, and potentially classified by the type of aquaculture they are most suitable for.
- The impact of the "No Action" alternative can be expected to have cascading effects on the Gulf of Mexico, and the United States as a whole. If no action was taken and these AOAs were not established within the Gulf, it would be a major setback for aquaculture both in the region and throughout the country. The U.S. aquaculture industry would continue its current state, in which the lack of efficiency and coordination among state and federal regulators, in conjunction with legal pushback from anti-aquaculture entities, commonly delays the permitting process to the point where it is no longer feasible for the company to continue pursuit of the operation. Cumulative impacts would be evident socially, economically, biologically, physically, and ecologically. The development of future AOAs in other regions would be jeopardized, and aquaculture companies planning future farms can be expected to encounter increased difficulty. Workforce development would likely suffer as a result. The lack of sustainably sourced seafood provided by domestic marine aquaculture in federal waters will lead to increased dependency on imports and already struggling wild stocks. This increased dependency would result in further depletion of the wild populations, or further reliance on foreign imports of often questionable quality. Each of the impacts of the "no action" alternative would contradict the stated goals of Executive Order 13921.

"Types of aquaculture (e.g., finfish, shellfish, seaweed, multi-species)

- All types of responsible marine aquaculture should be considered in this PEIS: finfish, shellfish, macroalgae, and integrated multi-trophic aquaculture (IMTA).
- Co-location opportunities with marine renewable energy should be considered as well to serve as a potential power source for offshore farms.

"Ecologically, economically, and socially suitable species and gear"

- Novel approaches to aquaculture equipment and mooring systems need to be allowed and encouraged in order for the industry to continue to innovate and expand. New technology and methods must demonstrate structural and hydrodynamic viability using legitimate engineering-based approaches applied to site-specific environmental characteristics.

"Potential adverse, beneficial, neutral, or cumulative impacts to biological, physical, and ecological resources"

- Farms that culture native species, sourced from wild broodstock within an established radius of the farm site, effectively negate commonly stated genetic impacts associated with escapes. The Florida Department of Agriculture and Consumer Services (the state-level authority for aquaculture operations involving the state of Florida) requires that all broodstock be collected within 100 km of the intended finfish aquaculture site. Therefore, Florida offshore aquaculture farms that abide by current regulations will have a neutral impact to wild populations in regard to genetic risks following escapement.
- As of 2017, there was "no published data on interactions of marine mammals with finfish aquaculture in the United States." In fact, a commercial-scale U.S. fish farm recorded "no observations of harmful interactions such as entanglement, injury or mortality" among marine mammals over a seven-year period, despite being located within a whale national marine sanctuary (Price et. al 2017). In addition, NMFS currently has recommendations for net mesh size to minimize/negate the risk of sea turtle entanglement in finfish net pens. Therefore, offshore finfish farms that abide by current regulations will have a neutral impact on surrounding marine life in regard to entanglements.
- Constant and transparent environmental monitoring is crucial for maintaining and protecting water quality and benthic habitat at and near an offshore aquaculture farm. The current monitoring regulations established by the EPA as required by the National Pollutant Discharge Elimination System permit are site and farm-specific, and are sufficient for maintaining water quality and benthic habitat. Therefore, offshore aquaculture farms that abide by the terms of their NPDES permit will have a neutral impact to water quality and benthic habitat. It is important to note that this neutral impact is crucial not just for the environment, but for farm operators as well. Healthy water quality is essential for successful farm operations.
- Throughout our efforts to establish offshore aquaculture in the U.S., we have observed the concept of Fish Aggregating Devices (FADs) to be a topic requiring in-depth consideration. On the one hand, FADs and artificial reefs are purposefully designed and deployed in waters throughout the country (GOM included)

to capitalize on their beneficial impacts to biodiversity and subsequent recreational opportunities. In fact, the very first FAD network in the continental U.S. was recently deployed in the northern Gulf by Okaloosa County, Florida. On the other hand, we have observed criticism that offshore aquaculture facilities may indirectly act as FADs and increase recreational vessel traffic in the area, thereby threatening marine life in the surrounding areas. It is entirely contradictory to state that the increased presence of vessels involved in an aquaculture operation will result in elevated risk of vessel-strikes to marine mammals, but recreational vessels around purposeful FADs somehow will not. Regarding entanglement risks pertaining to the gear associated with an offshore aquaculture operation, we reiterate our comment from above that there is no evidence of any marine mammal becoming entangled in the gear of an operational finfish aquaculture facility anywhere in the U.S. It seems disingenuous that purposefully deployed FADs are viewed as beneficial while aquaculture facilities that may indirectly act as FADs are viewed as detrimental. Therefore, offshore aquaculture operations that abide by all state and federal regulations should be considered to have a neutral, if not beneficial (for the same reasons as intentional FADs) impact in regard to the surrounding marine life and recreational opportunities. For example, Open Blue's offshore finfish farm in Panama has a well-documented impact of promoting biodiversity around their net pens with negligible adverse effects.

- The PEIS should consider the significant cumulative benefits that well-planned and well-regulated offshore marine aquaculture in the GOM would have on the biological, physical, and ecological resources of the U.S. The large-scale sustainable production of marine protein will supplement wild-caught seafood in the Gulf, resulting in decreased pressure on wild fish stocks. This increased supply of healthy protein will bolster domestic food security, and simultaneously decrease our national dependence on seafood imports and resource-intensive, environmentally harmful forms of terrestrial agriculture such as monocropping.

"Potential adverse, beneficial, neutral, or cumulative impacts to the social, economic, and cultural environment"

- Aquaculture operations that prioritize the sale of product to local/domestic markets rather than international markets would contribute directly to the EO's stated goal of "promoting American seafood competitiveness and economic growth." Operations that implement these priorities would have beneficial impacts to the economic environment of the GOM.
- The establishment of offshore marine aquaculture operations would directly result in increased workforce development and expansion of the working waterfront throughout the Gulf of Mexico. Each commercial-scale operation would create at least 40 job opportunities within the company itself, with many more being created as a result of increased business, trade, and supply chain operations in the region. This increase in workforce development would have beneficial socioeconomic impacts on the region and would be a boon to the blue economy sector of the GOM.

"The impact of climate change or changing environmental conditions (e.g., storm intensity, sea level rise, water quality) on siting and other aspects of aquaculture"

- Increasing storm intensity in the GOM is an issue for offshore marine aquaculture in the region, but it is not a prohibitive one. The magnitude of these storms can be estimated using historical and in-situ environmental data combined with modern oceanographic/meteorologic forecasting techniques. Incorporating these estimates into high-fidelity numerical models allows for the simulation of these environmental forces acting on aquaculture structures. The predictions and observations obtained from these models can then be combined with industry design standards to enable informed risk analyses and subsequent component strength and design recommendations.

Thank you again for the opportunity to comment at this time.

Respectfully submitted,

Donna Lanzetta

Donna Lanzetta, CEO
MANNA FISH FARMS, INC.

DL;zd

References

[1] Price, C.S., E. Keane, D. Morin, C. Vaccaro, D. Bean, and J.A. Morris, Jr. 2017. Protected Species & M arine Aquaculture Interactions. NOAA Technical Memorandum NOS NCCOS 211. 85 pp.

[2] Alexander, Kristina 2021. "Wildlife Permits for Energy Development in the Gulf of Mexico." *Water Lo g*, Dec. 2021, pp. 10-12.

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0182
Comment from Foreman, William

Submitter Information

Name: William Foreman
Address: United States,
Email: WilliamForeman91@yahoo.com

General Comment

OPPOSE to all fish farms

PUBLIC SUBMISSION

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Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0183
Comment from Gulf of Mexico Reef Fish Shareholders' Alliance

Submitter Information

Email: eric@shareholdersalliance.org
Organization: Gulf of Mexico Reef Fish Shareholders' Alliance

General Comment

Please see the attached comment letter from the Gulf of Mexico Reef Fish Shareholders' Alliance.

Attachments

2022.08.01_Shareholders' Alliance Comments on Gulf of Mexico AOA PEIS

August 1, 2022

Andrew Richard, Regional Aquaculture Coordinator
NMFS, Southeast Regional Office
263 13th Avenue South,
St. Petersburg, FL 33701

Re: Proposed Gulf of Mexico Aquaculture Opportunity Areas, Notice of Intent to Prepare a Programmatic Environmental Impact Statement NOAA-NMFS-2022-0044 (June 1, 2022).

Dear Mr. Richard,

On behalf of the Gulf of Mexico Reef Fish Shareholders' Alliance (Shareholders' Alliance), please accept these comments on the "*Notice of Intent to Prepare a Programmatic Environmental Impact Statement (PEIS)*" for the proposed Gulf of Mexico Aquaculture Opportunity Areas (AOAs).

The Shareholders' Alliance is the largest organization of commercial grouper and snapper fishermen in the Gulf of Mexico. We work hard to ensure that our fisheries are sustainably managed so our fishing businesses can thrive and our fishing communities can exist for future generations. We are harvesters that provide the American public with a reliable source of domestically-caught wild Gulf seafood, and we do this through a philosophy that sustainable seafood and profitable fishing businesses depend on healthy fish populations.

It is with this in mind that we offer the following comments on the Gulf of Mexico AOA PEIS.

First, we want to thank you and the rest of your team for your openness and willingness to engage the commercial fishing industry in the Gulf of Mexico. We have been impressed with your commitment to an open and transparent dialogue during the APA development process. As we have learned from you about the AOA process, we hope that you have learned from us about the business and operations of commercial fishing. This process has tracked well with the three guiding principles that we provided last year on the National Strategic Plan for Aquaculture Research 2021-2025, which are essential to the development, establishment, and maintenance of aquaculture in the Gulf's federal waters:

- Aquaculture must be developed, and research priorities identified, in a way that ensures that aquaculture and wild harvest industries can thrive together.
- The development of aquaculture in the Gulf of Mexico, and the establishment of research priorities, must include meaningful input from commercial fishermen by ensuring they have a seat at the decision-making table throughout every step of this process.
- NOAA and the researchers involved must acknowledge and analyze the full upstream and downstream impacts of aquaculture on domestic wild-caught fisheries.

Our specific PEIS comments are as follows:

I. The AOA PEIS should include commercial spear fishing data.

The AOA analysis considered a number of commercial fishery datasets, but commercial spear fishing data was not one of them. It's unclear to us why this information was excluded. This relatively small but important subset of the Gulf's commercial fishing industry should be analyzed and considered alongside the other commercial fishing datasets. Commercial spear fishermen often harvest fewer fish than their commercial bandit and bottom longline counterparts, so the relative socioeconomic impacts of proposed AOAs on this subsector could be larger and more severe. Including these data will help ensure that the PEIS produces a thorough analysis of the AOAs.

II. The AOA Atlas should showcase commercial fishing data overlaid in the 9 proposed AOAs.

We reviewed the Atlas and found the Study Areas overlaid with commercial fishing data, but didn't see the specific AOAs overlaid with commercial fishing data. This analysis will be important to release to the public so that commercial fishermen have the opportunity to truly assess the impact of these sites on their commercial fishing grounds. We understand that data resolution may be contingent upon the NOAA "rule of three," but encourage NOAA to do everything they can to publicize these data – or the absence of these data – relative to the proposed AOAs. If data releases or other formalities need to be addressed, we're open and willing to help address them. Otherwise, the commercial fishing industry's ability to adequately comment on these areas is severely limited.

III. The AOA Atlas should be updated on a regular basis and should evolve to accommodate climate change impacts.

We encourage NOAA to work with federal and industry partners to help secure funding for updates to the Atlas. We understand the Atlas is a static document and there is no funding to support continuously maintain or revisit this document; however, we would hate to see this impressive undertaking sit stagnant on a shelf and lose its value as time goes on. We recommend that NOAA engage the commercial fishing industry and others to secure funding and other resources to maintain this as a "living document" in order to maximize its effectiveness and relevancy for Gulf ecosystem management. We further recommend that NOAA engage the Gulf of Mexico Fishery Management Council (Gulf Council) on a regular basis to optimize its fishery ecosystem plan (FEP) work and its Ecosystem Technical Committee (ETC) as vehicles for managing this process. We hope that though this management process and the building out of digital mapping tools, NOAA can work with the ETC and the commercial fishing industry to quickly incorporate the most recent data into tools industry and other stakeholders can utilize to identify locations that might be suitable for aquaculture or other ocean activities.

IV. The AOA PEIS should better incorporate economic analysis of the U.S. seafood supply chain.

A more thorough analysis of the domestic seafood supply chain would be helpful in this PEIS process. There is very limited visibility on the true socioeconomic impact of a pound of fish – either wild harvested or aquacultures – on the seafood supply chain in this country, and we hope that the rising interest and acceptance of aquaculture will bolster that process. This should include but not be limited to wholesale and retail operations, markets, restaurants, trucking companies, associated processing industries, tourism, and other community-level impacts. The importance of this from a

job and food security perspective was showcased during the COVID-19 pandemic, and should be fully analyzed relative to other protein sources for American consumers.

V. The PEIS should explore in great detail a number of additional ecological, social and economic factors.

Finfish aquaculture can be a controversial topic, as we see in the breadth and range of comments submitted. The Shareholders' Alliance joins with a number of additional groups and individuals to recommend that the following topics be thoroughly analyzed and addressed publicly, including but not limited to the impacts of aquaculture on:

- Red tide, the Dead Zone, other algal incidents/areas, and water quality in general.
- Wild stock abundance, recruitment, and distribution.
- Navigation and habitat, especially in conjunction with proposed offshore wind energy areas.
- Community development, working waterfront impacts, and seafood supply chain distribution.

VI. The AOA PEIS process should shine a light on the increasingly unbalanced composition the Gulf Council.

While the Gulf Council manages wild-harvest fisheries in the Gulf of Mexico Exclusive Economic Zone, there's a role for this stakeholder body to play in the review and vetting of aquaculture operations in the Gulf. Unfortunately, the Gulf Council has seen its commercial fishing and seafood representation whittled away to almost zero in the last few years. Under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the governors of coastal states nominate individuals for membership on the Regional Fishery Management Councils (Councils) who are knowledgeable regarding the conservation and management, or the commercial or recreational harvest, of the fishery resources within a Council's jurisdiction. In making appointments from among these nominees, the Secretary of Commerce (Secretary) is required to "ensure a fair and balanced apportionment, on a rotating or other basis, of the active participants (or their representatives) in the commercial and recreational fisheries under the jurisdiction of the Council." *Id*. §1852(b)(2)(B). Due to the Secretary's 2021 and 2022 appointments to the Gulf Council, however, there is now just one member out of 17 total voting members who represents the commercial fisheries under the jurisdiction of the Gulf Council. At the same time, many species of fish managed by the Gulf Council are in decline and suffering from poor management, including red snapper. If the Gulf Council wants to maximize its effective participation in the aquaculture process, it needs to be rebalanced with additional commercial/seafood voices. Otherwise, where the Council fails to act and ignores MSA mandates, as it has been doing for over two years, NOAA Fisheries "must fulfill its statutory responsibility as a backstop."[1]

In conclusion, the Shareholders' Alliance believes that sustainable aquaculture and sustainable wild harvest fisheries can coexist. In order for this to happen, though, sufficient analysis, research, documentation, and commercial fishermen participation must occur as aquaculture takes hold in the region. We stand by ready to help with these efforts.

Thank you for the opportunity to comment.

Sincerely,

[1] *Guindon*, 31 F. Supp. 3d at 198.

Eric Brazer
Deputy Director, Gulf of Mexico Reef Fish Shareholders' Alliance
eric@shareholdersalliance.org

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0184
Comment from National Family Farm Coalition

Submitter Information

Email: antonio@nffc.net
Organization: National Family Farm Coalition

General Comment

Andrew Richard,
Regional Aquaculture Coordinator,
NMFS, Southeast Regional Office,
263 13th Avenue South, St. Petersburg, FL 33701.

Re: Docker Number RTID: 0648-XB900 “Gulf AOA PEIS”

On behalf of the members of the National Family Farm Coalition (NFFC), I thank you for the opportunity to offer comments on Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico.

NFFC is an alliance of grassroots farmer- and advocate-led groups across 42 states representing the rights and interests of independent family farmers, ranchers, and fisherfolk. NFFC’s 30 state, regional, and national farm and rural organizations are bound by the common belief that communities have the right to determine how their food is grown and harvested; that everyone in the food system should receive fair prices or wages; that all producers should have equitable access to credit, land, seeds, water, markets, and other resources; and, that our food and agriculture policy must support sustainable farming, ranching, and fishing practices.

Details comments are included on the attachment, but based on the experience of our farmers, we support Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico!

Thank you again for your time

Antonio Tovar PhD
Senior Policy Associate

Attachments

NFFC Comments on Identification of Aquaculture Opportunity Areas in the Gulf of Mexico

NATIONAL FAMILY FARM COALITION

Gloucester, MA August 1st, 2022

Andrew Richard,
Regional Aquaculture Coordinator,
NMFS, Southeast Regional Office,
263 13th Avenue South, St. Petersburg, FL 33701.

Re: Docker Number RTID: 0648-XB900 “Gulf AOA PEIS”

On behalf of the members of the National Family Farm Coalition (NFFC), I thank you for the opportunity to offer comments on Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico.

NFFC is an alliance of grassroots farmer- and advocate-led groups across 42 states representing the rights and interests of independent family farmers, ranchers, and fisherfolk. NFFC’s 30 state, regional, and national farm and rural organizations are bound by the common belief that communities have the right to determine how their food is grown and harvested; that everyone in the food system should receive fair prices or wages; that all producers should have equitable access to credit, land, seeds, water, markets, and other resources; and, that our food and agriculture policy must support sustainable farming, ranching, and fishing practices.

One of our members, the North America Marine Alliance, is an integral part of our membership because our coalition understands the deep connection of sea and land in the context of the food system, and we see that, as it is happening with small family farmers challenged by industrial agriculture, fisherfolks are now at risk of food corporations to losing even more their livelihood.

Consolidation in the food system has destroyed family farmers; what some call efficiency and food security, we understand as toxic agriculture, with disparity in prices for producers, poor conditions for workers, and loss of food sovereignty of communities. Concentrated animal feeding operations (CAFOs) and land consolidation processes are quite similar to the current proposals to build aquaculture operations on the oceans.

The negative impacts of CAFOs on family farms is well documented[1][2][3] ; while just a few corporations benefit from these operations, not just farmers, but whole rural communities are

[1] Wender, M. J. (2011). Goodbye family farms and hello agribusiness: The story of how agricultural policy is destroying the family farm and the environment. *Vill. Envtl. LJ*, *22*, 141.
[2] Ikerd, J. (2011). Corporate Agriculture versus Family Farms; A Battle for Hearts and Minds. *Retrieved, December*, *1*, 2017.
[3] Killalea, L. (2022). " Horrible Outcomes for Pigs and Humans Alike": North Carolina's Right to Farm Law as an Unconstitutional Taking of Property near Pork Production Facilities. *Geo. Wash. J. Energy & Env't L.*, *13*, 68.

economically and environmentally affected. It is clear that to run offshore operations only large producers will be able to invest and benefit from it, while traditional fisheries and coastal communities will suffer similar consequences. It is dishonest for administrators and policy makers to insist on the argument to “feed the world” in their attempt to industrialize our food system when it is clear that the interest is to increase the revenue of a few companies at the cost of small producers.

The European Union is ahead of the U.S. in the industry and while you may see marginal benefits for labor markets, the environmental conditions are completely different - for instance, they do not have “the potential adverse effects of catastrophic stochastic events.”[4] Neither, I will add, the weaken regulatory oversight of the U.S. government. Moreover, as in the case of farming, fisherfolks are at risk of becoming workers of their own business. A low-class incoming force to enrich the few owners of corporations.

As a participant of one of NOAA’s Scoping Meetings and Florida resident for 25 years, I understand the arguments used for the proposal: growing demand, increasing import and precautionary consideration as distant from shore and deep of farming, but our belief is all those arguments lack a better understanding of our broken food chain system and the climate change consideration of the Gulf of Mexico system.

First, “the consumption of an important food source, seafood, has increased over the past half century. It is now the most globally traded food commodity and its supply chains are often complex and opaque.”[5] What NOAA’s considered imported may actually be U.S. catch and foreign processed. Commercial fisheries landed 9.3 billion pounds of fish and shellfish in 2019, but the U.S. consumption during the same year was 6.3 billion pounds, even with 20% use for other purposes[6] local catch is close to cover the local demand.

NFFC and NAMA had advocated to Congress to move forward bills for country of origin labels as one way to solve this issue; but also, it is vitally important that transparency on seafood labeling become an international norm. “More integrated, holistic, and collaborative approaches are needed to understand mislabeling impacts and design interventions to minimize mislabeling.”[7]

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[4] McCausland, W. D., Mente, E., Pierce, G. J., & Theodossiou, I. (2006). A simulation model of sustainability of coastal communities: aquaculture, fishing, environment and labour markets. *Ecological Modelling*, *193*(3-4), 271-294.

[5] Kroetz, K., Luque, G. M., Gephart, J. A., Jardine, S. L., Lee, P., Chicojay Moore, K., ... & Donlan, C. J. (2020). Consequences of seafood mislabeling for marine populations and fisheries management. *Proceedings of the National Academy of Sciences*, *117*(48), 30318-30323.

[6] NOAA Fisheries, Fisheries of the United States 2019, A Statistical Snapshot of 2019 Fish Landings. https://media.fisheries.noaa.gov/2021-05/fus-2019-fact-sheet-v4.2-webready.pdf?null

[7] Kroetz, K., Luque, G. M., Gephart, J. A., Jardine, S. L., Lee, P., Chicojay Moore, K., ... & Donlan, C. J. (2020). Consequences of seafood mislabeling for marine populations and fisheries management. *Proceedings of the National Academy of Sciences*, *117*(48), 30318-30323.

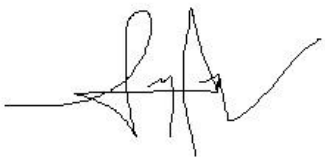
Climate change makes the Gulf of Mexico a risk area for any marine activity. Planning these operations even with the best intention to prevent impact from storms are superficial. While deepend changes may prevent collisions, there is no way currents will affect pollution from coastal areas already affected by recurrent *Karenia brevis* (Red Tide).[8]

Finally, we want to conclude with some of the comments our member organization, NAMA, already highlighted to NOAA in 2011: “Any development of marine aquaculture shall be compatible with local, regional and national marine ecosystems and the multitude of services they provide. We think there is a sharp contrast between enabling aquaculture development for its own sake and objectively assessing and addressing potential impacts… Aquaculture may not be essential, and in some cases may be contrary to objectives of sustainable development.”[9]

NOAA has argued at the Scoping meeting that the initiative is driven by growing consumer demand for safe, local and sustainable produce seafood, increasing energy cost, and the decline of fishing-related industries are emerging drivers that support sustainable domestic aquaculture production.

NAMA stressed in 2011 that “given that much of the decline in fishing and working waterfronts has been caused by failures in NOAA’s management to protect fishing communities while taking necessary measures to reduce fishing and recover fish populations, we hope this was simpli ill-stated and that it does not actually pull back the curtain on a hidden agenda to replace wild caught fisheries with aquaculture”[10] . **We demand NOAA to take NO-Action (Alternative 1)** at the moment to open offshore aquaculture projects in the Gulf Coast.

Thank you for your time and attention to this, if you have any additional questions please contact me at antonio@nffc.net



Antonio Tovar PhD
Senior Policy Associate
National Family Farm Coalition

[8] Tullis-Joyce, P., & Roy, S. S. (2021). Occurrence of Karenia brevis near Southwest Florida coast 1971 to 2017: a geospatial analysis. *Journal of Coastal Conservation*, *25*(6), 1-14.
[9] NAMA Comments on NOAA’s Draft Aquaculture Policy. https://www.namanet.org/documents/weighing/comments-on-noaa-s-national-aquaculture-policy-draft
[10] Idem

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0185
Comment from Coppernoll, Carrie

Submitter Information

Name: Carrie Coppernoll
Address:
San Diego, CA, 92102
Email: carriecoppernoll@yahoo.com

General Comment

Please do not allow this. We are destroying the oceans. Fish farming is cruel and a breeding ground for disease.

PUBLIC SUBMISSION

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Docket: NOAA-NMFS-2022-0044
Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0186
Comment from Fish Feel

Submitter Information

Email: Info@FishFeel.org
Organization: Fish Feel

General Comment

The following comments are submitted on behalf of Fish Feel's thousands of members and constituents in opposition to the proposal for fish farms or shellfish farms in federal waters in the Gulf of Mexico.

The public is not demanding an increase in the supply of seafood, and increasingly the existing demand for it is being met by plant-based seafood products. Such products are increasingly popular, and many are nutritionally superior without the mercury, dioxins, PCBs and other toxins; parasites, micro-plastics, cholesterol, saturated fat and other health hazards of animal-derived seafood. They also don't entail the environmental degradation, human rights abuses or animal suffering that is rampant in the fishing/fish farming industries and which is of growing concern to the public.

Fish farms are egregiously inhumane to the fishes exploited in them, with high mortality rates, and they also endanger the large numbers of wildlife that are attracted to them. Fishes captive in fish farms are subjected to highly unnatural, stressful conditions that make them vulnerable to parasites and other diseases which can be transmitted to wild fishes. Captive fishes are also defenseless against weather extremes and other inclement environmental conditions, and fish escapes from fish farms are inevitable, whereby they can outcompete free-living animals for resources.

Fish farms are notorious for polluting surrounding waters with fish wastes, excess feed, decaying fishes, and antibiotics and other chemicals. For example, it's estimated that Ocean Era's scheme to raise tens of thousands of Almaco Jacks off of Sarasota, Fl., would produce 80,000 pounds of waste, no doubt including antibiotics and other problematic chemicals. The Gulf of Mexico continues to be plagued with red tides that kill massive numbers of marine animals, pollute coastal communities, and endanger human

health. Pollution from fish farms is bound to yet further exacerbate them.

Instead of allowing fish farms or shellfish farms in federal waters, the government should be encouraging the public to opt for more healthful, humanely obtained, and environmentally sustainable foods rather than animal-derived seafoods. These can include plant-based seafood, which the government should promote and help in the development of yet more of them. That would be a genuine public service.

Thank you for your attention to these comments. Please give them due, sincere consideration.

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0187
Comment from Karr, April

Submitter Information

Name: April Karr
Address: United States,
Email: iajm69@yahoo.com

General Comment

I do not want these farms in the ocean!! Our oceans are already damaged and animals are already suffering as it is. The last thing we need is MORE pollution, disease, and animal suffering! NO fish "farms" in our dying seas!!!

PUBLIC SUBMISSION

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Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and to Conduct Public Scoping Meetings

Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0188
Comment from Malloy, Teresa

Submitter Information

Name: Teresa Malloy
Address:
Gulf Breeze, FL, 32563
Email: teresaleemalloy@gmail.com
Phone: 8505292960

General Comment

I urge you to adopt Alternative 1, the No Action Alternative, in which no AOA would be identified in Federal waters offshore of the Gulf of Mexico.

NOAA's efforts to regulate aquaculture in the Gulf of Mexico are illegal. The 5th Circuit court case Gulf Fishermens Ass'n held that NOAA does not have authority to permit or regulate aquaculture in U.S. federal waters, as there is no Congressional authorization to do so under MSA or otherwise (see Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F. 3d 454 (5th Cir. 2020)).

The legal authority of Executive Order 13921 to push forward with designating Aquaculture Opportunity Areas is a gross power grab. Former President Trump should not have changed the regulatory process through an Executive Order, which circumvents Congress and our democratic electoral process.

These farms are "water grabs," by which the federal government and corporate partners seize the ocean to establish an industry that will harm coastal communities and the livelihoods of people who live and work along the water. Furthermore, NOAA has been funneling millions of dollars of taxpayer money into the pockets of corporations seeking to develop this CAFO-style fish farming in U.S. waters.

These floating factory farms take significant time and money to build; they are not community driven; nor will they benefit people living in coastal communities. In the recent NOAA listening sessions on offshore

fish farming, oral comments have overwhelmingly opposed these facilities. It seems the only ones who support them are well-heeled corporations, such as Cargill, Merck, and Sysco.

Aquaculture facilities are intensive operations that generate large amounts of nutrients (nitrogen and phosphorus) and other waste products. The organism that causes Florida red tides, Karenia brevis, is known to intensify as a result of those nutrients. Even your own scientists have stated this hypoxic zone was caused by "high levels of nutrients, primarily from activities such as industrial agriculture and inadequate wastewater treatment." Industrial scale aquaculture in the Gulf would worsen this existing problem.

In 2018, Southwest Florida experienced one of the worst red tide events in recorded history. On Sanibel Island, the City of Sanibel removed more than 850,000 pounds of dead marine life from the beaches. This event had widespread impacts on the local economy, with the local Chamber of Commerce reporting more than $47 million in economic losses from July to December related to tourism, real estate and recreational fishing. Permitting an aquaculture facility in the shallow Gulf waters in an area where red tide frequently occurs would be irresponsible and would exacerbate our existing water quality issues.

Two of the aquaculture opportunity areas - C-11 and C-13 - are located in the Gulf of Mexico Dead Zone, which indicates that NOAA is not making decisions based on the best scientific information for the benefit of the Gulf of Mexico coastal communities or marine ecosystem.

Additionally, the threat of fish escapes is likely, especially given the propensity for intense hurricanes to hit the Gulf region. Farmed fish are genetically inferior fish, and when they interbreed with wild stock, they bring down the fitness and survivability of the wild fish stocks. Floating CAFOs incubate and proliferate diseases that then spread to the wild fish populations, harming both the marine ecosystem and wild fisheries.

Fish farms directly lead to overfishing of forage fish. Most farmed marine fish require large amounts of fish in their feed – much of this comes from wild prey fish, like menhaden, sardines and other small fish that are critically important to the diet of marine wildlife – birds, dolphins, sharks and other fish. Removing massive amounts of bait fish from our oceans means less food available for wild fish and can change relationships in our ecosystem with many widespread consequences.

Lastly, this type of industry has a massive carbon footprint associated with the global sourcing, capturing, blending, and shipping of feed inputs to go into the fishfeed, and related infrastructure associated with keeping them in cages, feeding them, medicating them, and harvesting them.

This is not a solution to our world's problems. This type of industrial activity will only exacerbate our environmental, economic, and social problems.

Thank you for considering my comments and my support of the No Action Alternative.

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Comment On: NOAA-NMFS-2022-0044-0001
Notice of Intent To Prepare a Programmatic Environmental Impact Statement for Identification of Aquaculture Opportunity Areas in Federal Waters of the Gulf of Mexico and To Conduct Public Scoping Meetings

Document: NOAA-NMFS-2022-0044-0189
Comment from Ocean Era, Inc., and Ocean Stewards Institute

Submitter Information

Email: neil@ocean-era.com
Organization: Ocean Era, Inc., and Ocean Stewards Institute

General Comment

Please see attached comments

Attachments

Ocean Era comments on GOM AOA 1

OCEAN ERA

1 August 2022

To: Andrew Richard,
NOAA Southeast Regional Aquaculture Coordinator
nmfs.ser.aquaculture@noaa.gov

Dear Mr Richard,

Ocean Era thanks NOAA for the initiative and perseverance in pursuing the Aquaculture Opportunity Areas in US Federal waters in the Gulf of Mexico, and for providing the opportunity to offer comments on the PEIS scoping.

We would like to provide the following responses to your specific requests for input (NOAA requests in normal font, our response in **bold blue font**):

1. The scope of the NEPA analysis, including the range of reasonable alternatives and how many or which locations should be considered and evaluated;

We believe that this has been comprehensively and adequately addressed in the Notice of Intent for the PEIS, and the extensive consultation and planning process for the AOAs. We concur with the rationales provided for the determination of alternatives and locations.

2. The type of aquaculture (e.g., finfish, shellfish, seaweed, multi-species aquaculture) that could be supported or analyzed in a proposed AOA location;

This will require greater site-specific analyses. Some AOAs with lower current speeds or higher nutrient levels may be better for macroalgae (W1, W4 and C11), while others with stronger current speeds can better support more intensive finfish culture. If finfish aquaculture takes place in waters that have lower current speeds, or are relatively shallow (some Eastern sites), then having multiple smaller concessions rather than one large farm site will decrease potential for negative impacts to sediment, and will likely benefit animal health.

3. Ecologically, economically and socially suitable species and gear for aquaculture that could be analyzed for a proposed AOA location;

The analyses should cover a range of fish net pen designs, sizes and mooring rigs, including grid moorings and single-point moorings. The fish species to be analyzed should be

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representative of those families that are already commercially cultured in tropical waters, such as cobia, amberjack, snappers, groupers, and tunas.

4. Monitoring and reporting requirements for owners and operators of aquaculture facilities that could mitigate impacts to managed and non- managed fishery resources, protected species, habitat, water quality, storm, navigation, economic, social, cultural and other impacts;

To have meaningful results from monitoring, it is essential that either the permitting agency or the operators perform baseline environmental monitoring before any construction or operation has started. Video monitoring, as well as chemical analysis of sediment, are relatively fast, inexpensive and robust ways to learn how farm operations are interacting with the surrounding sediment. For example, changes in oxidation-reduction potential, total organic carbon, presence of Beggiatoa or uneaten feed seen on video.

Since there has been no significant offshore aquaculture in the GOM, a survey of current pathogens (for fish, shellfish and seaweed of interest) would provide an invaluable record of conditions prior to aquaculture operations being installed.

Tiered monitoring requirements should be employed, so that the frequency of monitoring and the number of monitored locations increases with any increasing evidence of impact.

Monitoring and reporting by operators of any significant interactions with wildlife in and around farm sites should be mandatory. However, wider scale or long-term wildlife monitoring programs should be conducted by NOAA fisheries, rather than individual operators.

The PEIS should specify these requirements of NOAA and operators.

5. Potential adverse, beneficial, neutral, or cumulative impacts to biological, physical and ecological resources, including potential interactions with marine mammals and other species protected by the Marine Mammal Protection Act or Endangered Species Act, essential fish habitat designated under the Magnuson-Stevens Act, and other sensitive, managed, or protected habitats in the Gulf of Mexico;

We believe that the potential impacts have been comprehensively addressed in prior publications by NOAA and others. (e.g. Price and Morris, 2013[1]; Rust, et al., 2014[2]; Welch, et

[1] Price, C.S. and J.A. Morris, Jr. 2013. Marine Cage Culture and the Environment: Twenty-first Century Science Informing a Sustainable Industry. NOAA Technical Memorandum NOS NCCOS 164. 158 pp.
[2] Michael B. Rust, Kevin H. Amos, April L. Bagwill, Walton W. Dickhoff, Lorenzo M. Juarez, Carol S. Price, James A. Morris Jr. & Michael C. Rubino (2014) Environmental Performance of Marine Net-Pen Aquaculture in the United States, Fisheries, 39:11, 508-524, DOI: 10.1080/03632415.2014.966818

al., 2019[3]). The PEIS should draw heavily on these prior studies, and on the evidence from the offshore kanpachi farm in Kona, which has been in operation now for over 17 years. This singular exemplar of offshore fish farming in US waters is located around 0.5 miles from a coral reef that is frequented by dive-tour operators, and is closely monitored by the State's Div. Aquatic Resources marine biologists.

We believe that the PEIS should also provide an overarching global context for expansion of domestic U.S. aquaculture, and should view the AOAs in light of the recommendations from the U.N.'s High Level Panel on a Sustainable Ocean Economy[4], which concludes that humanity must begin to source more of our food from marine aquaculture. The PEIS should underscore that expanding food production from the seas is an imperative in addressing our global climate crisis.

6. Potential adverse, beneficial, neutral, or cumulative impacts to the social, economic, and cultural environment, including commercial and recreational fishing industries and coastal communities;

The distance from shore for many of these sites makes them unattractive to many recreational boaters. However, the PEIS should fully consider all aspects of the FAD effects of offshore aquaculture. In other countries, recreational fishers have taken advantage of aquaculture's FAD effect, such as in New Zealand around, and even within, some mussel farms (https://www.fishing.net.nz/fishing-advice/how-to/fishing-the-mussel-farms/).

This has also been our experience with our own Velella Beta-test and Velella Gamma demonstration net pen projects in Kona, Hawaii, which were very popular with the local fishing community. We would be pleased to provide more information on this, during the PEIS process, if that would be helpful.

7. Promotion of environmental justice, diversity, equity, and inclusion when considering alternative AOA locations and other aspects of offshore aquaculture development in Federal waters of the Gulf of Mexico;

Offshore aquaculture, associated hatcheries, equipment suppliers and processing facilities require a wide array of skill sets ranging from technician to C-suite, from boat captain to market specialists. Therefore, new aquaculture, processing and support facilities will need local talent.

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[3] Welch AW, Knapp AN, El Tourky S, Daughtery Z, Hitchcock G, Benetti D. The nutrient footprint of a submerged-cage offshore aquaculture facility located in the tropical Caribbean. J World Aquacult Soc. 2019;1–18. https://doi.org/10.1111/jwas.12593

[4] www.oceanpanel.org/ocean-solutions

8. Underserved communities and underrepresented groups, and/or regions and communities that could either benefit from or be adversely impacted by the siting of AOAs in the Gulf of Mexico;

Under-represented groups may benefit if they understand the industry (community outreach will be essential), and if they have easy access to workforce training programs. Industries that support offshore operations, such as marine mechanics, or fish processing and distribution, will likely benefit.

9. The impact of climate change or changing environmental conditions (e.g., storm intensity, sea level rise, water quality) on siting and other aspects of aquaculture;

The PEIS should certainly address these issues using the best available models to project future climate scenarios.

10. Current or planned activities in or near the areas highlighted in this notice and their possible impacts on aquaculture development or the impact of aquaculture developments on those activities;

No comment.

11. Other topics relevant to the Proposed Action and its impacts on the human environment.

The PEIS may also want to make an assessment of the potential improvements in consumer health that could result from increased domestic seafood consumption with the greater availability of locally-farmed fish and seafood in the GOM. The seminal study by Mozaffarian and Rimm[5] should be used to project the number of American consumers' lives that could be saved for a range of offshore farm production levels (using the projected increased production to estimate increased number of meals of seafood consumed).

Thank you for the opportunity to offer these comments.

Sincerely, with aloha,

Neil Anthony Sims, M.Sc.
Founder, CEO, Ocean Era, Inc.
and President, The Ocean Stewards Institute

and Jennica Lowell-Hawkins

[5] Mozaffarian, D. and E.B. Rimm ,(2006) Fish Intake, Contaminants, and Human Health Evaluating the Risks and the Benefits. **JAMA**, October 18, 2006—Vol 296, No. 15 1885-1899

Research Director, Ocean Era, Inc.

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