



Southern Shrimp Alliance

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TO: Andrew Richard
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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 of 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.

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 its 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 may 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-Review-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 it 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 the 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

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 14008 establishes 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 policies, 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 AOA’s 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 AOA’s 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 AOA’s 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.

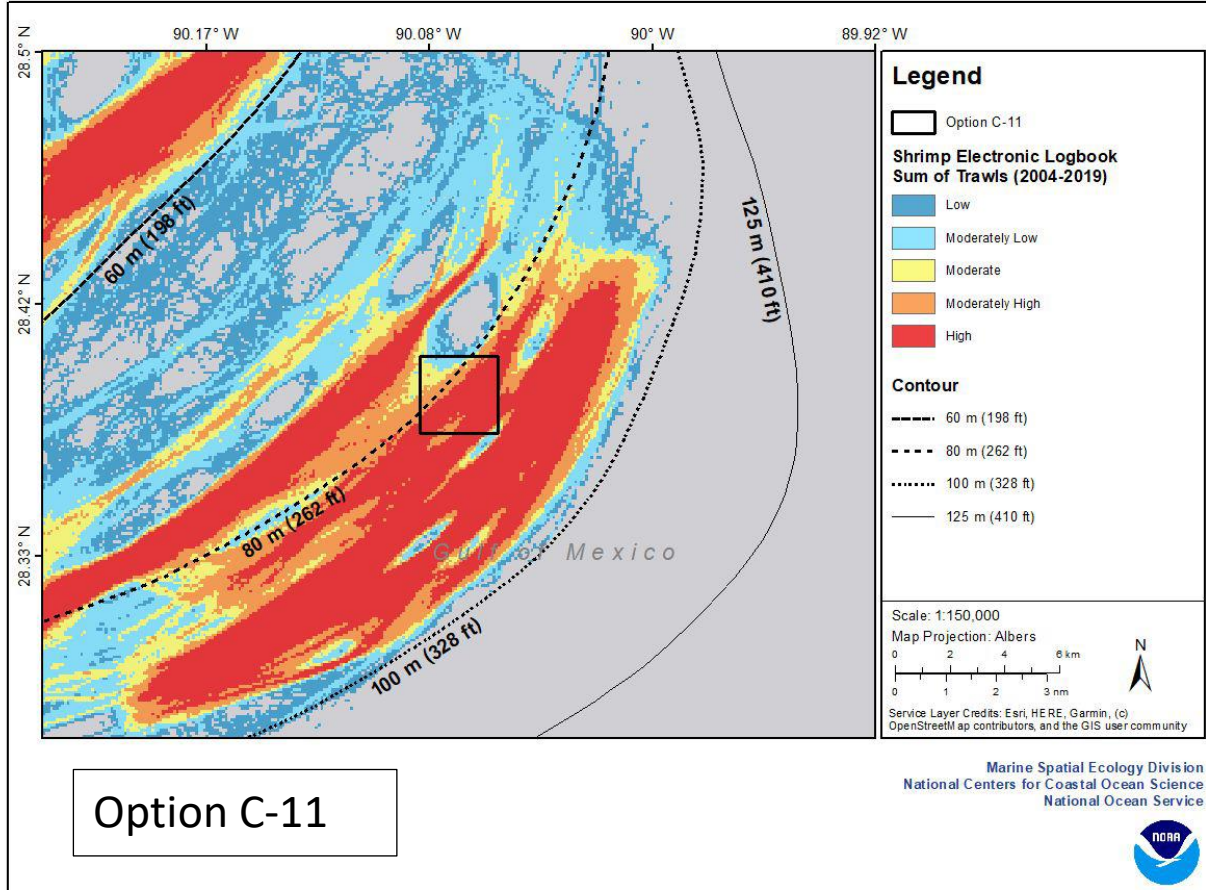
SSA is grateful for NOAA’s consideration of our views. Please let us know if you have any questions.

Sincerely,

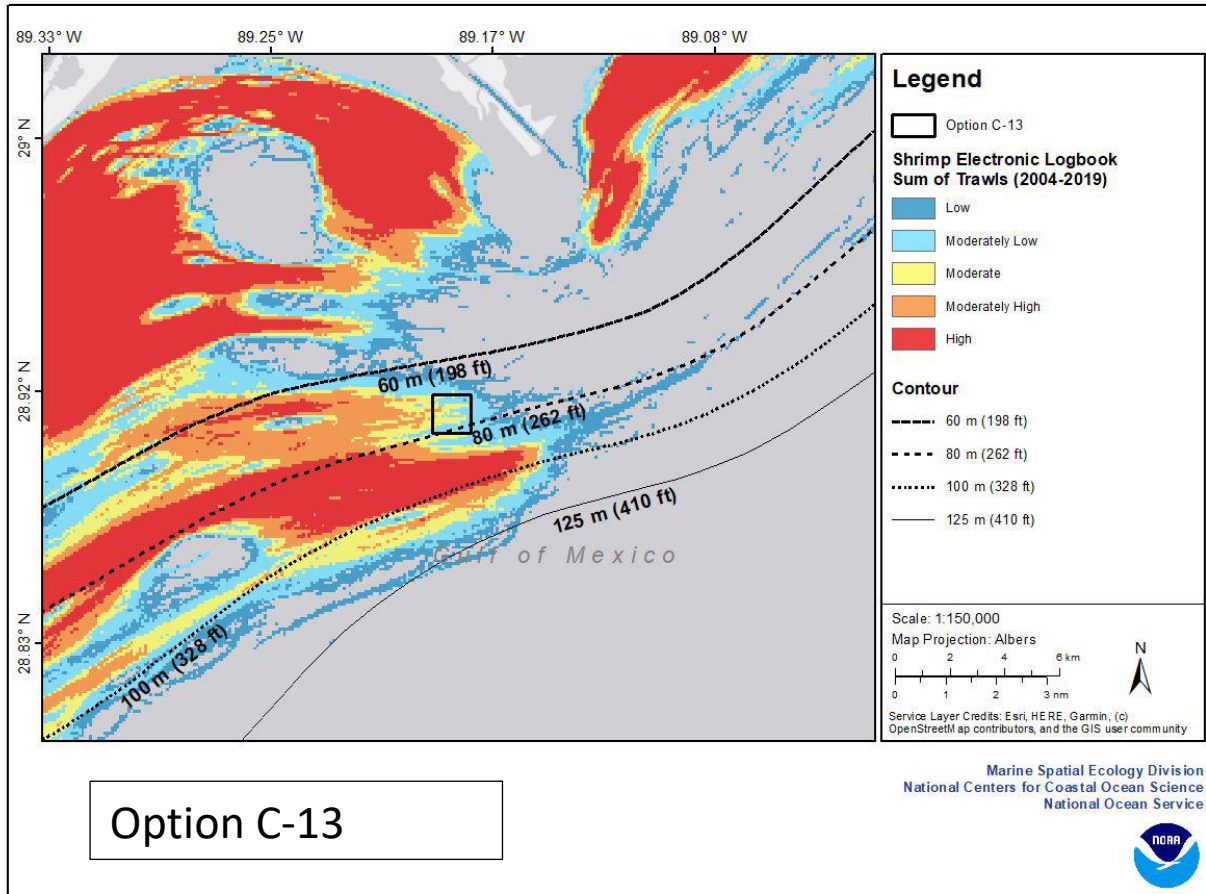


John Williams,
Executive Director

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

