Finding of No Significant Impact (FONSI) for:
Amendment 9 to the Fishery Management Plan for the Shrimp Fishery of the South Atlantic Region (Amendment 9)

National Marine Fisheries Service

The National Marine Fisheries Service (NMFS) intends to approve Amendment 9. Actions in Amendment 9 include measures to (1) modify the criteria a South Atlantic state must meet to request closure of the exclusive economic zone (EEZ) to penaeid shrimp trawling adjacent to state waters that have been closed to penaeid shrimp trawling to protect overwintering white shrimp during cold weather events; (2) streamline the process by which a South Atlantic state requests, and NMFS implements, a concurrent closure of the EEZ adjacent to closed state waters to penaeid shrimp trawling to project overwintering white shrimp; and
(3) update the current overfished and overfishing status determination criteria (biomass at maximum sustainable yield [B_{MSY}]) for South Atlantic pink shrimp.

National Oceanic and Atmospheric Administration Administrative Order 216-6 (NAO 216-6) (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality regulations at 40 CFR 1508.27 state the significance of an action should be analyzed both in terms of "context" and "intensity." Additionally, NMFS has issued guidance for drafting a FONSI, which is found in "NMFS Instruction 30-124-1, July 22, 2005, Guidelines for the Preparation of a FONSI." Each criterion listed below is relevant in making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

1) **Can the proposed action reasonably be expected to jeopardize the sustainability of any target species that may be affected by the action?**

Response: No. None of the actions contained within Amendment 9 are expected to jeopardize the sustainability of any target species. According to Amendment 9, smaller white and pink shrimp may remain in the estuaries off the South Atlantic states during the winter and are thus, termed overwintering stocks. Harsh winter conditions such as cold water temperatures and rainfall can affect the survival of overwintering stocks and subsequent year class strength. Pink and white shrimp that survive the winter inshore grow rapidly in late winter and early spring before migrating to the ocean where they are harvested. Therefore, when extreme cold weather events occur it is important to protect overwintering shrimp stocks from harvest to ensure there is an adequate supply of shrimp to spawn in the spring and summer, and be harvested in the fall.

To protect overwintering shrimp, South Atlantic states may close state waters to penaeid shrimp harvest. The Fishery Management Plan for the Shrimp Fishery of the South Atlantic Region (FMP) includes a process through which a state can request a concurrent closure of the exclusive economic zone (EEZ) adjacent to a state's waters to penaeid shrimp harvest when state waters close after a cold weather event. Amendment 9 adds an additional criterion that a state may use to request a concurrent closure of the EEZ.

Currently, a state must demonstrate at least an 80-percent reduction in the population of white shrimp as a result of cold weather in order to be able to request concurrent closure of federal waters to protect overwintering white shrimp. Amendment 9 adds an option for a state to demonstrate that state water temperatures were 9 °C (48 °F), or below, for at least one week in lieu of using the white shrimp abundance criterion. As analyzed in Section 4.1 of the environmental assessment (EA), the addition of a temperature component lends more flexibility to a state that maintains temperature data and wishes to use those data to support a request for concurrent closure of the EEZ adjacent to their closed state's waters in response to cold weather events.

Actions in Amendment 9 are intended to improve the timeliness of protections for overwintering white shrimp, which is thought to improve harvest rates later in the year. The amendment shortens the process by which a South Atlantic state requests NMFS to prohibit the harvest of penaeid shrimp in the EEZ adjacent to state waters that have been closed to penaeid shrimp trawling to protect shrimp stocks during cold weather events. The current process for implementing a winter prohibition on penaeid shrimp trawling in federal waters would be reduced from several months to several weeks, which increases protection of overwintering white shrimp in the South Atlantic during cold weather events. The sooner a concurrent closure is implemented when it is needed, the greater the magnitude of protections provided to shrimp stocks.

Updating the B_{MSY} proxy for South Atlantic pink shrimp using a more recent catch per unit effort (CPUE) data set establishes an overfished and overfishing criterion that is based on information that reflects the current level of effort in the fishery as well as historical effort. The previous B_{MSY} proxy was based on Southeast Area Monitoring and Assessment Program (SEAMAP) CPUE data from 1990-2003. Since 2003, the shrimp fishery has changed dramatically in response to economic and natural events. The new B_{MSY} proxy is based on SEAMAP survey data from 1990-2011, which also reflects the effects of recent changes in the South Atlantic shrimp fishery on CPUE for pink shrimp. Additionally, the South Atlantic Fishery Management Council (Council) and NMFS determined the pink shrimp stock size that produced the new B_{MSY} proxy value of 0.089 individuals per hectare does not compromise the long term capacity of the pink shrimp stock to achieve maximum sustainable yield (MSY), because the low stock size has historically produced a biomass the following year that is capable of achieving MSY based on the best scientific information available.

2) Can the proposed action reasonably be expected to jeopardize the sustainability of any non-target species?

Response: No. Actions in Amendment 9 are not likely to jeopardize the sustainability of any non-target species. Management measures including the requirement to use turtle excluder devices and bycatch reduction devices have likely reduced catch of many non-target species. The actions to modify the criteria used by a state to request a concurrent closure of the EEZ adjacent to closed state waters streamline the process for a state to request such a concurrent closure of the EEZ, and update the B_{MSY} proxy for pink shrimp are largely administrative in

nature and are not likely to modify the way in with the penaeid shrimp fishery currently operates the South Atlantic.

3) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and identified in fishery management plans (FMP)?

Response: No. The area affected by the proposed actions in Amendment 9 has been identified as essential fish habitat (EFH) for all fishery management plans under the authority of the Council and the Consolidated Highly Migratory Species Fishery Management Plan of NMFS Highly Migratory Species Division. The proposed actions are not expected to cause any damage to the ocean and coastal habitats and/or EFH as defined under the Magnuson-Stevens Act and identified in the FMPs. Fishing effort is not expected to increase as a result of these actions, nor are changes in fishing technique or behavior expected. Streamlining the process by which a South Atlantic state requests concurrent closure of the EEZ adjacent to state waters could result in a small reduction shrimp effort. Therefore, impacts to coastal habitats and/or essential fish habitat would not be significantly different from the status quo. This determination may be found in a memorandum from the Habitat Conservation Division dated October 25, 2012.

4) Can the proposed action be reasonably expected to have a substantial adverse impact on public health or safety?

Response: No. The proposed actions are not expected to have an adverse impact on public health or safety. Streamlining the process by which a South Atlantic state requests concurrent closure of the EEZ adjacent to state waters that have been closed to penaeid shrimp trawling to protect penaeid shrimp stocks during cold weather events, and updating the status determination criteria for pink shrimp would not significantly change the manner in which the penaeid shrimp fishery in the South Atlantic is currently prosecuted. The actions in Amendment 9 are intended to simplify the concurrent closure request process for South Atlantic states, and incorporate more recent CPUE data into the current stock status determination criteria for pink shrimp. Achievement of these objectives would neither increase nor decrease inherent safety risks associated with penaeid shrimp fishing in the South Atlantic.

5) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species?

Response: No. Based on the impacts analysis contained in Section 4 of the EA, the actions in Amendment 9 are not expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species beyond the status quo. According to the 2013 proposed List of Fisheries (78 FR 23708, April 22, 2013) shrimp trawls, which are the primary gear used in the South Atlantic shrimp fishery, are classified as a Category II gear, meaning the fishery is associated with occasional incidental mortality or serious injury of marine mammals. Deepwater coral species such as *Oculina varicosa*, within the Oculina Habitat Area of Particular Concern are protected from shrimp trawl-related damage due to trawl gear prohibitions within the designated area. Listed sea bird species such as the Bermuda petrel would not be adversely

affected by actions contained within Amendment 9 due to their rare occurrence off the Atlantic coast.

The impacts of the South Atlantic shrimp fishery on ESA-listed species have been evaluated in a biological opinion on shrimp trawling in the southeastern U.S. dated May 8, 2012. This opinion analyzed effects of shrimp trawling in the southeastern U.S. on protected sea turtles (green, hawksbill, Kemp's ridley, leatherback, and loggerhead), fish (Atlantic sturgeon, Gulf sturgeon, and smalltooth sawfish), invertebrates (elkhorn and staghorn corals), mammals (blue, humpback, fin, north Atlantic right, sei, and sperm whales), and critical habitats. The opinion concluded that shrimp trawling in this region is not likely to adversely affect any listed whales, shortnose sturgeon, or corals, and is not likely to jeopardize the continued existence of any sea turtles, Gulf sturgeon, Atlantic sturgeon, or smalltooth sawfish. The opinion also concluded that the action is not likely to adversely affect the designated critical habitats for Gulf sturgeon and elkhorn and staghorn corals, and will have no effect on North Atlantic right whale, smalltooth sawfish, and Johnson's seagrass critical habitats.

In a memorandum to the file dated October 14, 2012, NMFS determined reinitiation of formal ESA Section 7 consultation for Amendment 9 is not required because none of the reinitiation criteria have been triggered. The amendment would not alter the amount or extent of incidental take authorized by the 2012 biological opinion, and there is no new information revealing effects to listed species that were not previously considered. Further, the actions proposed in Amendment 9 are not anticipated to modify the shrimp fishery in a manner that will cause new effects not previously considered. Subsequent to the October 14, 2012, determination, NMFS published a proposed rule to list 66 coral species under the ESA and reclassify *Acropora* from threatened to endangered (77 FR 73220, December 7, 2012). In a memorandum to the file dated February 13, 2013, NMFS determined the proposed uplisting *Acropora* does not trigger reinitiation because none of the reinitiaton criteria have been met. The proposed uplisting does provide additional information that was not available at the time of these consultations; however, this new information does not indicate the shrimp fishery may be affecting *Acropora* in a manner or to an extent not previously considered.

6) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: No. The proposed actions are not expected to substantially impact the biodiversity and/or ecosystem function within the affected area. The affected area includes the federal 200-mile limit of the Atlantic off the coasts of North Carolina, South Carolina, Georgia, and east Florida to Key West. The biological ranges of affected species are described in Section 3.0 of Amendment 9.

Amendment 9 directly affects white, pink, and brown shrimp in the South Atlantic, which are considered annual stocks that may be negatively affected by large die-offs during extreme cold weather events. Amendment 9 would help to expedite the process by which a state may request closure of adjacent federal waters to penaeid shrimp trawling in order to protect overwintering white shrimp and improve shrimp harvest later in the year. Thus, the actions that would

streamline this process would benefit South Atlantic penaeid shrimp stocks by helping to ensure sufficient stock abundance in the spring and summer months. Updating the B_{MSY} proxy for pink shrimp by including recent CPUE data reflective of how the fishery is prosecuted currently provides a more realistic benchmark parameter, which fisheries managers may use to assess the status of pink shrimp. None of the actions contained in Amendment 9 allows increased harvest above the previously implemented harvest management thresholds for each penaeid shrimp species. Therefore, no substantial impact on biodiversity or ecosystem function over the status quo is expected.

7) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: No. As indicated in the social and economic impacts analysis contained in Section 4 of the EA, there are no significant social or economic impacts that are interrelated with natural or physical environmental effects resulting from this action. The purpose of Amendment 9 is to streamline the process by which a South Atlantic state requests, and NMFS implements, prohibitions on penaeid shrimp trawling in federal waters adjacent to state waters closed to the same fishing activity to protect overwintering white shrimp. Shortening this process is not likely to result in significant socioeconomic impacts as concurrent closures of the EEZ are requested by states infrequently, and protecting shrimp from directed fishing pressure during cold weather events for a longer period of time would result in more shrimp being available for harvest later in the year, which could ultimately benefit commercial shrimp fishermen. Updating the overfished and overfishing status determination criteria for pink shrimp using a more recent CPUE data set from SEAMAP should not result in significant socioeconomic impacts or environmental effects. This action is largely administrative, and would implement a more appropriate benchmark parameter that takes into account changes that have taken place in the commercial shrimp fishery over the past several years.

8) Are the effects on the quality of the human environment likely to be highly controversial?

Response: No. There are no foreseen effects on the quality of the human environment that may be highly controversial as a result of any of the actions contained in Amendment 9. Amendment 9 is largely administrative in nature and would have minimal impact on the shrimp fishery and fishery participants. Therefore, no issues of controversy have been raised regarding this proposed action.

9) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas?

Response: No. The proposed actions are not expected to result in substantial impacts to unique or ecologically critical areas. In the South Atlantic, areas of unique habitat exist such as the Oculina Bank and large expanses of deepwater coral; however, regulations are currently in place to protect such known areas. Additionally, there are several notable shipwrecks along the southeast coast in state and federal waters including Lofthus (eastern Florida), SS Copenhagen

(southeast Florida), Half Moon (southeast Florida), Hebe (Myrtle Beach, South Carolina), Georgiana (Charleston, South Carolina), Monitor (Cape Hatteras, North Carolina), Huron (Nags Head, North Carolina), and Metropolis (Corolla, North Carolina). The southeastern coastline is also home to numerous marshes and wetland ecosystems; however, these sensitive ecological environments do not extend into federal waters of the South Atlantic. Actions within this amendment would not affect any of the above listed habitats or historic resources, nor would they alter any regulations intended to protect them.

10) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: No. The effects on the human environment are not likely to be highly uncertain or involve unique or unknown risks. A thorough biological, economic, and social analysis of the potential impacts of the actions contained within Amendment 9 has been completed and revealed predictable short-term and long-term impacts based on biological and socioeconomic data for the shrimp fishery. This determination is supported by the impacts analysis found in Section 4 of the EA.

None of the actions contained in Amendment 9 are likely to result in any biological impacts that could be considered unique or unknown. Because the level of fishing for penaeid shrimp species would not increase beyond previously implemented harvest limits as a result of the amendment actions, no significant biological impacts are anticipated. Any impacts on the socioeconomic environment are predictable and have been analyzed in the document. Any negative economic impacts that may result from being able to implement a concurrent closure of federal waters to protect overwintering white shrimp sooner than in past years would be offset by opportunities for increased harvest later in the year.

11) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: No. The proposed actions are not related to other actions with individually insignificant, but cumulatively significant impacts. The actions in Amendment 9 are not related to any other proposed, ongoing, or past regulatory actions. The actions to streamline the process by which states request and NMFS implements concurrent closures of the EEZ adjacent to state waters closed to shrimp harvest to protect penaeid shrimp stocks during cold weather events, and updating the current B_{MSY} proxy for pink shrimp does not have any cumulatively significant biological or socioeconomic impacts based on the analysis contained within its supporting EA.

12) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

Response: No. The proposed actions are not likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places nor will it cause loss or destruction of significant scientific, cultural, or historical resources, such as those discussed under item 9 of this FONSI. The penaeid shrimp fishery is prosecuted in the

vicinity of the Oculina Bank, and several *Lophelia pertusa* deepwater coral locations which have been closed to all bottom-tending gear. These areas containing *Oculina* sp. and *Lophelia* sp. deep-sea coral have been designated Coral Habitat Areas of Particular Concern (CHAPC) and actions in this amendment are not likely to adversely affect the continued preservation of the designated CHAPCs or the species therein.

13) Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: No. The proposed action is not expected to result in the introduction or spread of any non-indigenous species. The actions in Amendment 9 are largely administrative in nature and would not affect the manner in which the fishery is prosecuted; therefore, no new introduction or spread of non-indigenous species is expected.

14) Is the proposed action likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

Response: No. None of the proposed actions are likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration. Amendment 9 would streamline an existing process to close federal waters to commercial penaeid shrimp harvest, and would update the existing B_{MSY} proxy for pink shrimp. These management tools are not considered precedent setting, and do not represent a novel approach to managing fisheries in the South Atlantic, nor do these actions represent a decision in principle about a future consideration.

15) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

Response: No. The approved proposed actions are not expected to threaten a violation of federal, state, or local law or requirements for the protection of the environment. The action to streamline the process by which states request NMFS close the EEZ in areas adjacent to state waters that have been closed to shrimp trawling improves how the federal and state fisheries managers work together to protect overwintering white shrimp stocks in the South Atlantic. Updating the B_{MSY} proxy for pink shrimp does not conflict with state or local laws affecting the shrimp fishery.

16) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: No. The proposed actions are not expected to result in any cumulative adverse effects that could have a substantial effect on the target species or non-target species. A cumulative effects analysis (Section 5 of the EA) was conducted for Amendment 9 and revealed no cumulative adverse effects on the biological environment, which includes all target and non-target species. Amendment 9 is largely administrative in nature, with some potential non-significant biological and socioeconomic benefit that would result from faster implementation of

protections for overwintering white shrimp stocks and using updated stock status determination criterion. Therefore, no adverse cumulative impacts on target or non-target species are expected.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting EA prepared for Amendment 9, it is hereby determined that the proposed actions to include temperature in the criteria a South Atlantic state may use to initiate a request for closure of adjacent federal waters to shrimp trawling, shorten the length of time needed to implement a concurrent closure of the EEZ adjacent to state waters closed to penaeid shrimp harvest, and update the B_{MSY} proxy for pink shrimp, would not significantly affect the quality of the human environment as described above and in the supporting EA. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an environmental impact statement is not necessary for this action.

5/22/2013

Roy E. Crabtree, Ph.D.
Southeast Regional Administrator

Date