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D. APPENDIX: PROPOSED RULE AND DRAFT ENVIRONMENTAL IMPACT STATEMENT COMMENTS AND RESPONSES

D.1 Quotas/Species Complexes

Quotas

Comment 1: The National Marine Fisheries Service (NMFS) should consider reducing the fishing mortality for overfished sandbar sharks.

Response: NMFS is taking steps to reduce fishing mortality for overfished sandbar sharks. In particular, NMFS is reducing the base commercial quota for sandbar sharks to 116.6 metric ton (mt) dressed weight (dw). This is approximately an 80-percent reduction in sandbar shark landings compared to the status quo (594.4 mt dw). This base commercial quota of 116.6 mt dw combined with estimated discards both within and outside the commercial shark fishery (*e.g.*, including other commercial fisheries and recreational fisheries) is anticipated to keep sandbar mortality below the recommended total allowable catch (TAC) of 158.3 mt dw, which gives this stock a 70-percent probability of rebuilding by 2070, as described in Chapter one of Amendment 2 to the Consolidated Highly Migratory Species (HMS) Fishery Management Plan (FMP).

Comment 2: NMFS should have considered Individual Transferable Quotas (ITQs) for the shark fishery in this rulemaking. The quota is just too small for the number of participants. Individual Fishing Quotas (IFQs) or ITQs would accomplish the same objectives as the research fishery. ITQs/IFQs are the fairest, simplest, most rational method for this dilemma. NMFS should switch to an ITQ system with no trip limit, because a lot of times fishermen do not weigh the sharks rather fishermen know their legal trip limit based on how they fill their fish boxes. An ITQ system with no trip limit would result in fewer dead discards.

Response: While NMFS agrees that ITQs may be beneficial in many fisheries, NMFS did not consider ITQs for this rulemaking because setting up an ITQ system would have taken too much time to set up and implement, therefore allowing overfishing of sharks to continue in spite of the mandate to rebuild overfished stocks in § 304(e) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The Magnuson-Stevens Act states that for stocks identified as overfished or having overfishing occurring, the appropriate Council or Secretary shall prepare a fishery management plan, plan amendment, or proposed regulations for the fishery to end overfishing in the fishery and rebuild affected stocks within one year of that determination. NMFS satisfied that timing provision: sandbar sharks and dusky sharks were determined to be overfished with overfishing occurred on November 7, 2006 (71 FR 65086), and NMFS published the draft Amendment 2 to the Consolidated HMS FMP on July 27, 2007 (72 FR 41325). NMFS notes that the 2006 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act amended § 304(e) to include a two-year timing provision for preparation and implementation of actions, and the new provision will be effective July 12, 2009.

Given § 304 and other timing considerations for this action, NMFS did not consider an ITQ system as a reasonable alternative, as it would have taken NMFS several years to properly design an ITQ system that appropriately considers the views of all stakeholders and then to implement such a system. The general requirements for ITQs or Limited Access Privilege Programs (LAPP) were included in the 2007 reauthorized Magnuson-Stevens Act (§ 303A). Overall, two basic things must be done when and/or implementing a LAPP system: 1) determine who would receive and who can hold the harvest privileges; and 2) define the nature of the harvesting privilege. In addition, there are referenda requirements for LAPP programs that are currently being established by NMFS (for instance, a particular allocation scheme must be approved by a given level of the industry). In addition, unlike the research fishery, which would allow an individual fisherman to target sharks on a yearly basis, allocation under an ITQ, IFQ, or LAPP program would be for a much longer period of time. Thus, NMFS would need to work with all stakeholders to devise the best allocation scheme possible, which would take considerable time. However, NMFS will consider developing an IFQ or LAPP program for sharks as well as other NMFS in the future.

Comment 3: NMFS should reconsider how it calculated the non-sandbar Large Coastal Shark (LCS) quota. The non-sandbar LCS quota is low because fishermen were not targeting non-sandbar LCS in the past. They were targeting sandbar sharks. If fishermen had been targeting non-sandbar LCS, historical landings would be much higher, and there would be a larger non-sandbar LCS quota than is currently proposed.

Response: NMFS is implementing a larger non-sandbar LCS base quota of 627.8 mt dw outside the shark research fishery based on dealer reports rather than logbooks, as originally proposed. Using dealer reports would include landings outside of the Agency's jurisdiction (*e.g.*, state landings) and would maintain consistency with data used in the stock assessments.

NMFS is using historical landings reported by shark dealers to calculate the non-sandbar LCS quota in order to follow the recommendations of the stock assessments for Gulf of Mexico and Atlantic blacktip shark populations. These stock assessments recommended keeping catch levels the same in the Atlantic region and not increasing catch levels in the Gulf of Mexico region. Basing quotas on dealer reports would cap fishing effort at historical levels and keep stocks in the Gulf of Mexico healthy and stocks in the Atlantic from declining. Setting quotas higher than these levels could have detrimental effects on shark stocks.

Comment 4: NMFS should consider allocating the entire sandbar quota to fishermen participating in the research fishery because giving a few sandbar sharks to those outside of the research fishery would not be worth it. NMFS should also consider only allowing fishermen with directed shark permits to participate in the shark fishery.

Response: Under the preferred alternative suite 4, NMFS would allocate the base sandbar quota of 116.6 mt dw to the shark research fishery, the adjusted quota would be 87.9 mt dw to account for overharvests that occurred in 2007. NMFS would publish a Federal Register notice each year, inviting permit holders to apply who are willing to

participate in the shark research fishery. Within that notice, NMFS would publish the selection criteria that NMFS would use to select participants for the research fishery. For example, depending on the research objectives for a given year, NMFS may consider applications from a variety of permit holders, including directed, incidental and charter/headboat (CHB) permit holders, in the shark research fishery. In addition, based on available funds, NMFS would place observers on vessels outside the shark research fishery that catch sharks incidentally. These observers would sample sandbar sharks that may be encountered, but fishermen would not be able to retain them outside the research fishery.

Comment 5: NMFS should acknowledge that the proposed reduction in quotas is the end of the directed shark fishery. NMFS should ensure that sharks are not discarded and accommodate incidental landings whenever possible.

Response: The reductions in quotas and retention limits and the prohibition of retaining sandbar sharks outside the research fishery would result in fishermen with directed shark permits no longer targeting non-sandbar LCS outside of the research fishery. However, fishermen could still retain non-sandbar LCS while they target other species such as reef fish and snapper-grouper. NMFS would implement a 33 non-sandbar LCS trip limit for fishermen with directed shark permits and a trip limit of 3 non-sandbar LCS for fishermen with incidental permits. NMFS would also implement management measures to reduce fishing mortality of sandbar, dusky, and porbeagle sharks based on recent stock assessments. Modifications to quotas and retention limits are necessary to end overfishing and rebuild overfished stocks. The trip limit for non-sandbar LCS outside the research fishery is based, in part, on bottom longline (BLL) observer program data from 2005 to 2007. The observer data showed that fishermen with directed shark permits fishing for snapper grouper kept, on average, 12 sharks per trip. A 33 non-sandbar trip limit would allow fishermen with directed permits to retain sharks (besides sandbar sharks) they catch while targeting other species and would minimize discards. The incidental trip limit is based on what fishermen with incidental permits currently retain under the status quo. In addition, fishermen targeting other species besides sharks (*i.e.*, snapper-grouper), on average, caught one sandbar shark per trip. Given that these sets not targeting sharks are typically shorter in length and duration than sets on trips targeting sharks, it is anticipated that sandbar sharks would remain on the gear for less time than on trips targeting shark species, and, thus, would have a greater likelihood of being released alive. Therefore, the current trip limits are not anticipated to result in increased dead discards.

Comment 6: NMFS needs to take a more a precautionary approach in regard to hammerheads, common thresher sharks, and blacktip sharks in the Atlantic region, which have an unknown stock status; NMFS should follow international organizations such as the World Conservation Union (IUCN), and pay attention to red listed shark species such as hammerheads, dusky, and sand tigers sharks, which would likely be taken (under the quota or as bycatch) in the fishery and are particularly depleted. Considering these factors, as well as NMFS' poor record for shark recovery to date, NMFS should close the commercial shark fishery; NMFS should put a moratorium on LCS fishing in the Atlantic until the stock status of Atlantic blacktip sharks is known; NMFS should only allow

fishing for Atlantic blacktip sharks within scientifically derived limits when the population is capable of supporting such exploitation and bycatch of prohibited species is demonstrated to be insignificant.

Response: NMFS is implementing management measures based on the latest NMFS-conducted stock assessments for blacktip, dusky, and sandbar sharks, and the LCS complex, which represent the best available science by independent peer reviewers. These management measures are consistent with rebuilding targets established in the latest shark stock assessments. In general, shark stock status determinations are based on NMFS-conducted stock assessments. NMFS does not rely on outside organizations, such as the IUCN, when making stock status determinations. This is due to the unknown nature of the data and peer review methodology applied by these outside groups. NMFS uses a Southeast Data, Assessment, and Review (SEDAR) process for shark assessment, which is open to the public and uses the Center for Independent Experts (CIE) to peer review assessment results.

The latest blacktip shark assessments recommended not increasing catch levels in the Gulf of Mexico and keeping catch levels at historical levels in the Atlantic. To account for differences in catch between the Gulf of Mexico and Atlantic region and to follow recommendations from the blacktip sharks stock assessments, NMFS would implement a Gulf of Mexico non-sandbar LCS regional quota and an Atlantic non-sandbar LCS regional quota based on historical landings from Highly Migratory Species (HMS) shark dealer reports from 2003 to 2005. This result is a lower non-sandbar LCS base quota in the Atlantic region (188.34 mt dw) than in the Gulf of Mexico region (439.5 mt dw). Since the Atlantic blacktip shark assessment did not recommend prohibiting blacktip sharks in the Atlantic region, NMFS would implement this regional quota based on historical landings in this region.

Unlike the sandbar shark assessment, which recommended a specific TAC, or the blacktip stock assessments, which recommended specific catch levels, the dusky shark assessment did not give specific mortality targets. In addition, even if NMFS stopped all shark fishing in the Atlantic, dusky sharks would still be caught as bycatch in other fisheries. NMFS has already taken a precautionary approach by placing this species on the prohibited species list in 2000; however, there continue to be dusky discards. NMFS estimated reduction in dusky mortality as a result of sandbar and non-sandbar LCS management actions. Based on the reduced quotas and trip limits, NMFS estimates that dusky shark mortality would be reduced from 33.1 mt dw to 9.1 mt dw per year. This is a 73-percent reduction in mortality compared to the status quo, which should help rebuild the dusky shark population and afford dusky sharks more protection compared to the status quo.

Finally, NMFS is conducting a stock assessment for hammerhead sharks, but not a separate stock assessment for common threshers or sand tiger sharks. This is due to the lack of species-specific information collected to conduct stock assessments for each species of sharks involved in commercial shark fisheries. Therefore, species such as hammerhead sharks and common threshers are managed within species complexes. It is likely that hammerhead sharks landings would be reduced due to the reduced non-

sandbar LCS quota and retention limits. NMFS has not considered specific management actions for common threshers in this rulemaking, but an annual quota is in place for the pelagic shark complex (488 mt dw), and underharvests of this complex are not applied to the next season. NMFS may consider additional management actions for this species, as warranted, in the future. For sand tiger sharks, based on their high vulnerability to exploitation and to discourage any directed fisheries from occurring in the future, in 1997 NMFS included it on the prohibited species list. Additionally, as with the dusky sharks, a reduction in discards based on the sandbar and non-sandbar LCS quotas and management actions taken in this rulemaking should afford additional protection for sand tiger sharks.

Comment 7: NMFS should include landings by states, such as Louisiana and Alabama, against the Federal shark quota.

Response: NMFS counts for both Federal and state landings of sharks against the Federal shark quota since sharks in both state and Federal waters contribute to the stocks that are Federally managed. This approach is consistent with that used by NMFS to manage other Federal fisheries such as reef fish and snapper grouper.

Comment 8: NMFS should consider species-specific quotas. NMFS should begin with blacktip sharks, since an assessment was done for them in both the Gulf of Mexico and Atlantic. This is because of variation in life history parameters, different intrinsic rates of increase, and different catch and abundance data for all species listed in each complex. Managing sharks as a complex is inappropriate.

Response: NMFS is moving towards species-specific management, including species-specific quotas. However, for some species, NMFS has only limited data which requires management to be based on species within a complex. Based on the latest stock assessment, NMFS has removed sandbar sharks from the LCS complex, resulting in a sandbar shark quota, and a non-sandbar LCS quota, comprised of blacktip, bull, smooth hammerhead, scalloped hammerhead, smooth hammerhead, lemon, nurse, silky, tiger, and spinner sharks. The sandbar shark assessment gave a specific TAC for sandbar sharks, which resulted in NMFS accounting for sandbar mortality in all fisheries (both commercial and recreational sectors) before establishing a base commercial quota of 116.6 mt dw. In order to monitor this quota, NMFS removed sandbar sharks from the LCS complex and set a separate commercial quota for this species.

However, while separate blacktip shark assessments were conducted, NMFS has decided not to have separate blacktip shark quotas because NMFS is also limited by the fact that the shark fishery is a multi-species fishery. The majority of sharks harvested in the directed shark fishery beside sandbar sharks are blacktip sharks. For instance, 82-percent of sharks caught in the directed shark fishery in the Gulf Mexico region are blacktip sharks (not including sandbar sharks). The next highest landings were for hammerhead sharks at 7-percent and bull sharks at 5-percent. In the South Atlantic region, outside of sandbar sharks, had the same pattern with the highest percentage of landing for blacktip sharks at 72-percent followed by hammerhead sharks at 14-percent, and then bull sharks at 4-percent. Therefore, since NMFS did not have species-specific assessments on other species besides blacktip and sandbar sharks, and because the

majority of the LCS catch, not including sandbar sharks, are blacktip sharks, NMFS chose to create a non-sandbar LCS complex with its own quota. To account for differences in catch between the Gulf of Mexico and Atlantic region, NMFS would implement a regional Gulf of Mexico non-sandbar LCS quota and an Atlantic non-sandbar LCS quota.

Comment 9: NMFS should split the sandbar quota between research and bycatch. This could be a “phased-in” quota system where 2/3 of the quota in the first year would be allocated toward incidental landings and 1/3 would be allocated toward research.

Response: Based on the available base commercial sandbar quota (116.6 mt dw), a 1/3 allocation of the quota for research would only result in 38.8 mt dw of quota. In addition, due to overharvests in 2007 (see Appendix C in the Final Environmental Impact Statement (FEIS) for more details), NMFS is reducing the base commercial sandbar shark quota to 87.9 mt dw annually for five years. A 1/3 allocation of this reduced quota would only leave 29.3 mt dw of sandbar quota available for research. One third of neither the base annual quota nor the adjusted five year quota would provide enough trips or observations to produce statistically sound data on the several research questions NMFS intends to address. In addition, a 2/3 allocation of the sandbar quota would only allow fishermen (directed or incidental) to retain few sandbar sharks (less than what was proposed under alternative suite 3, where all permit holders would have been allowed to retain sandbar sharks). Thus, splitting the quota into thirds would not provide benefits to the fishery nor to the research needed for future stock assessments. However, as funds are available, NMFS would have scientific observers on vessels fishing outside the research fishery that would monitor discards of sandbar sharks. If large number of sandbar dead discards occurred in the fishery, resulting in mortality above the recommended TAC, NMFS would take management action, as necessary.

Comment 10: NMFS should not use the maximum rebuilding time period (70 years) allowed under the law but should use a more precautionary approach. NMFS should not strive for maximum sustainable yield (MSY) for blacktip and sandbar sharks. The proposed sandbar shark quota of 116 metric tons (mt) is too high to ensure recovery of this population and NMFS should consider adopting an even lower final number.

Response: The 2005/2006 stock assessment for sandbar sharks discussed three rebuilding scenarios, including: a rebuilding timeframe under no fishing; a TAC corresponding to a 50-percent probability of rebuilding by 2070; and a TAC corresponding to a 70-percent probability of rebuilding by 2070. Since sharks are caught in multiple fisheries, to meet the rebuilding timeframe under no fishing, NMFS would have to implement restrictions in multiple fisheries to reduce mortality, such as shutting down multiple fisheries to prevent bycatch. If NMFS were to shutdown the shark fishery, such action would likely have severe economic impacts on the fishing community and it would likely result in difficulties for Council-managed and Commission-managed fisheries which often catch sharks as bycatch. Therefore, a rebuilding timeframe under no fishing is not practicable at this time. The recommended TAC associated with a 50-percent probability of rebuilding by 2070 is 172.7 mt dw (or 240 mt whole weight (ww)). However, given the life history of sharks including slow growth, late age of maturity, and

relatively small litter sizes, as described in the 1999 Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (1999 FMP), a 50-percent probability of success is minimally acceptable for sharks. Thus, NMFS adopted the TAC corresponding to a 70-percent probability of rebuilding by 2070, or 158.3 mt dw (220 mt ww). This timeframe is consistent with the Magnuson-Stevens Act, the National Standard (NS) 1 guidelines in at §600.310, the 2006 Consolidated HMS FMP (which includes the rebuilding requirements of the 1999 FMP), and the other NSs that require NMFS to consider the economic and social impacts of the fishery.

Discard Issues

Comment 11: NMFS should consider sandbar shark discards outside the research fishery. NMFS should also be concerned with derby-style fishing with the reduced quotas and retention limits.

Response: NMFS considered sandbar shark discards outside the shark research fishery when it established the base sandbar shark quota (see Table A.1 in Appendix A of the Final EIS). In doing so, NMFS set a commercial sandbar shark quota, that in addition to considering discards in other fisheries outside the shark research fishery, should keep sandbar shark mortality below the recommended TAC of 158.3 mt dw each year. In order to deter derby-style fishing outside the shark research fishery, NMFS reduced the trip limit for directed shark permit holders to 33 non-sandbar LCS. This should allow the shark fishery to stay open longer than it has in the past while also minimizing, to the extent practicable, regulatory discards and derby-style fishing.

Comment 12: NMFS should acknowledge that dusky bycatch will be an issue both inside and outside the research fishery. Seventy percent of dusky sharks are dead at haulback.

Response: Dusky sharks could be caught as bycatch under the new management measures, most of which would result in dead discards. However, most of the current dusky shark discards occur within the directed shark fishery (on average, 24.5 mt dw per year), with a total of 33.2 mt dw of dusky sharks discarded on average per year. Under the preferred management measures, there would no longer be a directed shark fishery, except within the shark research fishery. Depending on the number trips taken within the research fishery, yearly dusky discards could be between 0.5 (64 trips associated with the adjusted sandbar shark quota) and 0.6 mt dw (92 trips associated with the base sandbar shark quota), with a total of 9.1 mt dw of dusky shark discards across all fisheries. This is a 73-percent reduction in dusky discards compared to the status quo.

Comment 13: NMFS should evaluate if highgrading will be an issue outside the research fishery.

Response: Highgrading, or the discarding of smaller, less valuable animals and retaining only the most valuable animals to fill a retention limit, is prohibited. However, highgrading may be an issue whenever trip limits are implemented. Based on the latest shark stock assessments, NMFS would implement a reduced shark trip limit of 33 non-

sandbar LCS trip limit for directed permit holders operating outside the research fishery. NMFS expects that this reduced trip limit (approximately one quarter of what directed fishermen lands on a trip under the status quo) and the prohibition on the retention of sandbar sharks would result in fishermen with directed shark permits no longer targeting non-sandbar LCS. Additionally, this trip limit is higher than the average number of sharks directed shark fishermen currently retain when targeting other species (*i.e.*, 12 sharks). Thus, NMFS assumes that such a trip limit would allow directed shark fishermen to keep all incidentally caught non-sandbar LCS as they target non-sharks species, which should keep fishermen from highgrading.

Species Complexes

Comment 14: NMFS should reconsider the use of the term “non-sandbar LCS.” This title is awkward and might confuse some fishers. The use of “LCS” or “LCS (other than sandbars)” is recommended following the same logic as when referring to “pelagic sharks” (which otherwise would be referred to as non-blue or porbeagle pelagic sharks.)

Response: NMFS considered several names for the new complex of LCS that would not include sandbar sharks. NMFS felt keeping the title “LCS” for the new complex may be confusing with the “old” LCS complex (*i.e.*, the complex prior to the implementation of the amendment). NMFS choose “non-sandbar LCS” because it was the most explicit description of the new complex: the LCS complex with sandbar sharks removed. While this may differ from the terminology for pelagic sharks, NMFS is not specifically removing porbeagle or blue sharks from the pelagic unit, therefore, it is not necessary to rename the pelagic shark complex at this time.

Comment 15: NMFS is taking sandbars out of the LCS complex. Where did NMFS get the authority to remove a given species from a complex?

Response: The sandbar shark assessment gave a specific TAC for sandbar sharks, which resulted in NMFS establishing a base commercial quota of 116.6 mt dw. In order to monitor this quota, NMFS removed sandbar sharks from the LCS complex and set a separate commercial quota for this species. NMFS has the authority under Magnuson-Stevens Act to manage all sharks individually or as a complex, and may set species-specific quota as appropriate, given the best available science.

Comment 16: The Director of the North Carolina Division of Marine Fisheries stated that NMFS should place blacktip sharks in the small coastal shark (SCS) complex.

Response: NMFS is not changing the composition of the SCS complex in this rulemaking. Rather, based on the TAC recommended by the sandbar shark stock assessment, NMFS is removing sandbar sharks from the LCS complex. The revised LCS complex would be named the non-sandbar LCS complex and would consist of blacktip, bull, smooth hammerhead, scalloped hammerhead, smooth hammerhead, lemon, nurse, silky, tiger, and spinner sharks. Blacktip sharks are the species most commonly caught within this complex. In the 1993 Fishery Management Plan for Atlantic Sharks, blacktip sharks were placed within the LCS complex based on fishery dynamics. Blacktip sharks

are more commonly caught with gear targeting LCS (*i.e.*, BLL gear) rather than gear used to target SCS (*i.e.*, gillnet gear). In addition, the blacktip shark stock assessments recommended that blacktip shark landings should not change or increase from historical catch levels. By placing blacktip sharks within the SCS complex, NMFS could either drastically reduce the blacktip shark regional quotas if the 454 mt dw SCS complex quota was not increased (*i.e.*, the 454 mt dw quota would include the quota for blacktip sharks and SCS), or increase the SCS complex quota to include historical catch of blacktip sharks. Placing blacktip sharks within the SCS complex and increasing the overall SCS quota could result in increased catch levels of SCS. These catch levels may or may not be sustainable for the SCS complex. Therefore, at this time, NMFS is not placing blacktip sharks within the SCS complex.

Over- and Underharvests

Comment 17: NMFS received several comments regarding transferring quota. These include: NMFS should consider transferring unused quota to the next season; NMFS should not consider transferring underharvests to the next season even if species are not overfished or the status is unknown. This is because other bodies such as the IUCN have expressed concern as to some of these species; NMFS should subtract quota overages from the subsequent season's quota and disallow carry over of underages to the next season for populations that are of unknown status, overfished, or experiencing overfishing.

Response: The preferred alternative would remove the three fishing seasons and replace them with a fishing year. NMFS would subtract overharvests from the next fishing year for all species/complexes. In addition, NMFS would transfer underharvest up to 50-percent of the base quota to the next fishing year for species whose stock status are not unknown, not overfished, or overfishing is not occurring. Currently this would only apply for SCS. At the present time, IUCN has not expressed concern regarding any species within the SCS complex (finetooth, blacknose, sharpnose, and bonnethead sharks). However, NMFS would not carry over underharvest to the next season for species whose stock status is unknown, or overfished, or overfishing is occurring. Not applying underharvests would increase the likelihood that these stocks rebuild in a timelier manner. This approach is also used in other fisheries that NMFS manages including bluefin tuna and swordfish.

Shark Display and Research Quota

Comment 18: NMFS received several comments in favor of the preferred management measures affecting display quotas under alternative suite 4. These comments included: NMFS should allocate 2 mt dw of sandbar sharks from the overall 60 mt ww display and shark research quota to public display and research under exempted fishing permits (EFPs); the 60 metric tons (mt ww) quota for display permits and research should be reduced if it has never been attained; NMFS should prohibit dusky sharks for public display; and, dusky sharks have no display value.

Response: In order to stay within the TAC recommended by the sandbar stock assessment, NMFS reduced the commercial sandbar shark quota. In order to be equitable to all sectors, NMFS also restricted the number of sandbar sharks that could be collected under EFPs and Display Permits. While the 60 mt ww shark display and research quota has never been exceeded, the full quota has been allocated in the past. While NMFS is not reducing the overall 60 mt ww shark display and research quota, NMFS would restrict the sandbar shark collection for 1 mt dw for research under EFPs and 1 mt dw for public display to ensure that the sandbar shark mortality stays below the 158.3 mt dw TAC and to ensure that the research fishery has as much quota as possible in which to produce statistically sound data. The preferred allocations to the EFP and display quotas were based on the 2 mt dw average annual collection of sandbar sharks under the exempted fishing program from 2000 to 2006. As such, NMFS does not anticipate these restrictions to affect future sandbar shark collections under EFPs.

Due to the severity of the overfished and overfishing status of dusky sharks, dusky sharks would be prohibited for collection for public display. Aquariums that currently have dusky sharks would have to maintain their current stock. In addition, NMFS would review the allocation of dusky sharks for research under EFPs on a case by case basis. This would allow for research under EFPs on dusky sharks to continue, as appropriate.

Comment 19: The Agency received numerous comments stating that NMFS should not reduce the existing research/display quotas for sharks because: the quota is already small and not expected to increase in the future; the exempted fishing program quota has never been exceeded; the collection of sandbar sharks for public display is not a significant contributing factor to the reported decline of this stock; there is a disproportionate amount of regulations on display permits compared to other fishermen; any reduction in quotas or restrictions on species, if scientifically warranted and if based on scientifically peer-reviewed stock assessments, should come entirely out of the commercial quotas which have not been historically adhered to, and where the animals are landed dead with zero conservation or educational value; the sandbar shark is one of only a handful of shark species which are exceptionally hardy and historically has adapted well to closed aquarium environments.

Response: While the 60 mt ww (or 43.2 mt ww) shark display and research quota is small compared to the current 1,017 mt dw LCS quota, it was set aside for permits that are allocated on a case by case basis. The overall display and research quota would not be reduced. As described in the response to Comment 18 above, the quantity of sandbar and dusky sharks authorized for such activities is going to be limited. NMFS would limit the allocation of sandbar sharks under exempted fishing permits (EFPs) and display permits to what has been landed, on average, under the program during the past six years. Therefore, no negative economic impacts are anticipated with this allocation of sandbar sharks. Fishing mortality in the commercial and recreational sectors would also be reduced significantly as a result of final measures in this rulemaking. Finally, because exempted fishing permits exempt fishermen from regulations that other fishermen must follow, other regulations regarding reporting, notifying enforcement, and tagging animals are appropriate and warranted.

Comment 20: NMFS should consider an exemption to allow for the live take of dusky sharks for public display. Aquariums need to work on the husbandry of these sharks.

Response: As discussed in the response to Comment 18, due to the severity of the overfished and overfishing status of dusky sharks, dusky sharks would be prohibited for collection for public display. Moreover, dusky sharks do not do well in captivity. Currently, only 13 dusky sharks per year have been collected under the exempted fishing program. Under the preferred management measures, NMFS would review the allocation of dusky sharks for research under EFPs on a case by case basis. This would allow for research under EFPs on dusky sharks to continue, as appropriate.

Comment 21: NMFS should explain how it will prohibit sandbar and dusky sharks for EFPs and display permits.

Response: Exempted fishing permits allow fishermen to harvest species otherwise prohibited by existing regulations. NMFS is not prohibiting the collection of sandbar sharks under the exempted fishing program. Instead, 1 mt dw for research under EFPs and 1 mt dw for public display would be allocated to fishermen to ensure that the sandbar shark mortality stays below the 158.3 mt dw TAC. However, due to the severity of the overfished and overfishing status of dusky sharks, dusky sharks would be prohibited for collection for public display because they do not do well in captivity. While NMFS cannot prohibit fishermen from incidentally catching dusky sharks, NMFS can prohibit their retention for public display or research under EFPs. NMFS reviews the allocation of dusky and sandbar sharks under EFPs and Display Permits on a case by case basis. If research on dusky sharks must be conducted under an EFP and is deemed scientifically necessary, even if it includes mortality, NMFS may issue the necessary permits. However, such permits must have scientific merit and the research conducted by scientific staff in order for the permit to be issued. As is currently done for the exempted fishing program, NMFS would monitor all sources of mortality as a result of EFPs, Display Permits, Scientific Research Permits, and Letters of Acknowledgements, and these data would be incorporated in future stock assessments.

Comment 22: NMFS should provide more information on how they track landings under exempted fishing permits and what happens to HMS that are collected under EFPs.

Response: NMFS requires persons who receive EFPs to report the number of total animals kept, discarded alive, and discarded dead under the exempted fishing program. This information is published in the Federal Register every November/December in conjunction with the Agency's request for comments and Notice of Intent to issue EFPs and related permits in the subsequent year. The information is also published in the annual SAFE report and may be used in stock assessments, if appropriate. Permittees who do not provide this information, may not receive a permit in the future (*i.e.*, NMFS would deem future applications incomplete until all required reporting from past permits was received). NMFS does not track what is done with the animals after they have been collected by the original permittees.

D.2 Porbeagle Sharks as Prohibited

Comments in favor of prohibiting porbeagle sharks

Comment 1: NMFS received several comments in support of prohibiting the take of porbeagle sharks including, NMFS should prohibit porbeagle sharks because seasoned fishermen misidentify porbeagle sharks as mako sharks; the prohibition on the possession of porbeagle sharks is long overdue; NMFS should prohibit porbeagle sharks and implement stricter management measures that address porbeagle take, including bycatch; and NMFS should prohibit the possession of porbeagle sharks, however, if bycatch of porbeagle sharks is allowed, the rule will have little effect on the overall status of porbeagle.

Response: As a result of the 2005 Canadian stock assessment for the North Atlantic porbeagle shark, NMFS has determined that porbeagle sharks are overfished, but overfishing is not occurring. While the United States is not responsible for a large proportion of the porbeagle sharks landed in the Northwest Atlantic, NMFS would establish a reduced TAC for porbeagle sharks that would cap fishing mortality at its current level. The commercial quota would be 1.7 mt dw, commercial discards would be 9.5 mt dw, and recreational catch, including landings in tournaments, would be 0.1 mt dw per year. This TAC would increase the likelihood that fishing mortality would remain low and allow the stock to rebuild within 100 years (see rebuilding plan in Chapter 1 of the FEIS). While bycatch of porbeagle sharks would continue, the majority of porbeagle sharks caught are discarded alive. For instance, of an average of 723 porbeagle sharks that were discarded annually in the PLL fishery, only 161.3 were discarded dead whereas 561.6 were discarded alive. Therefore, dead discards should continue to be low and not negatively affect the stock.

Comments in favor of not prohibiting porbeagle sharks

Comment 2: NMFS received several comments, including comments from the states of Massachusetts and New Hampshire, opposing the prohibition of porbeagle sharks including: there is a small historical porbeagle shark catch here in the United States that is not significantly contributing to the loss of the porbeagle shark. The U.S. porbeagle fishery has remained sustainable under current regulations; other countries, such as Canada, should be more responsible for rebuilding this stock as they contribute more towards Atlantic-wide fishing mortality; NMFS should pressure to have Canadians reduce their porbeagle catch; porbeagle sharks are the only big game fish in the Northeast; and placing porbeagle sharks on the prohibited species list takes away 33-percent of the potential catch in New England.

Response: NMFS believes that a reduced TAC for porbeagle sharks would cap fishing mortality at its current level. Given the low level of porbeagle catch in U.S. waters, capping mortality at the current fishing level should allow the porbeagle shark population to rebuild within 100 years (see rebuilding plan in Chapter 1 of the FEIS), but discourage any future directed fishery on this species. As a result of this TAC, NMFS does not anticipate any increase in landings of porbeagle sharks within U.S. waters.

Other countries that have a directed fishery for porbeagle sharks have reduced their porbeagle quotas. For instance, the Canadian porbeagle quota was cut by 80-percent in 1998. It was cut back even further in 2001 and 2006. The current Canadian quota is 250 mt per year, 185 mt of which may be taken by the directed porbeagle shark fishery, with the rest of the quota being allocated for bycatch. In addition, according to the latest ICCAT Recommendation (07-06), all contracting parties are obligated to reduce mortality of porbeagle sharks in their directed porbeagle shark fisheries. NMFS may take more precautionary measures in the future, as necessary, if future stock assessments warrant such action.

Comment 3: The Atlantic States Marine Fisheries Commission (ASMFC) requested establishing a 2 mt quota for porbeagle sharks to allow a limited harvest. Allowing a small harvest of porbeagle sharks would help the ASMFC set identical species groups while offering protection from overharvest.

Response: NMFS would set a reduced TAC for porbeagle sharks of 11.3 mt dw of which 1.7 mt dw is allocated to commercial harvest. This caps fishing mortality at its present level by commercial and recreational fishermen and should prevent a directed fishery for this species from developing in the future. In addition, it is an 88-percent reduction in the current commercial quota of 92 mt dw, which should offer the species a greater likelihood of rebuilding within 100 years (see rebuilding plan in Chapter 1 of the FEIS).

Porbeagle mortality and rebuilding

Comment 4: Does NMFS have any evidence that Canadian porbeagle sharks go into U.S. waters? Is NMFS aware if U.S. fishermen are catching these Canadian sharks?

Response: Tagging data provide strong evidence that there are distinct porbeagle populations in the Northeast and Northwest Atlantic, and that the Northwest Atlantic stock is a separate population that undertakes extensive annual migrations between Canada and northeastern United States. Given these migrations, porbeagle sharks found in U.S. and Canadian waters constitute one stock, and fishermen in the United States catch porbeagle sharks that migrate between U.S. and Canadian waters.

Comment 5: If porbeagle sharks are overfished but overfishing is not occurring, what would the rebuilding timeframe be if the fishery was to continue at the current level?

Response: Since the 2005 Canadian stock assessment included U.S. commercial landings of porbeagle sharks, capping fishing mortality at its current level should allow the species to rebuild within 100 years (see rebuilding plan in Chapter 1 of the FEIS).

Comment 6: Will NMFS propose similar porbeagle shark prohibition measures at the International Commission for the Conservation of Atlantic Tunas (ICCAT) meeting this year? Since most landings for porbeagle occur outside the United States, international cooperation is needed to help manage this species.

Response: At the 2007 ICCAT annual meeting in Turkey, ICCAT Recommendation (07-06) obligates all Contracting Parties to take appropriate measures to reduce fishing mortality in fisheries targeting porbeagle sharks. While the United States does not have a directed porbeagle shark fishery, and U.S. commercial and recreational landings are small (1.8 mt dw), this ICCAT measure would help reduce mortality of porbeagle sharks that are targeted by other countries. The United States would also implement a reduced TAC of 11.3 mt dw, which is below the current commercial quota of 92 mt dw per year for porbeagle sharks, and encourage the live release of porbeagle sharks. This should prevent a directed fishery from developing for porbeagle sharks in U.S. waters in the future.

Quantifying recreational landings

Comment 7: NMFS has underestimated the number of porbeagle sharks being caught. This is because the Marine Recreational Fisheries Statistics Survey (MRFSS) data is flawed. Porbeagle sharks are not present in New England waters when MRFSS is collecting their surveys in this area.

Response: NMFS is currently working on a marine recreational information program to improve data collection from the recreational sector. Due to the rarity of porbeagle shark landings, it is difficult to estimate porbeagle landings with survey data, which only sample a portion of the recreational fishing fleet and then extrapolate the number of fish caught based on the estimated number of anglers. Therefore, NMFS may consider census data (*i.e.*, a trip ticket or a call-in system where all porbeagle shark landings are counted) in the future to better estimate recreational porbeagle landings.

Comment 8: The Large Pelagic Survey (LPS) started out as a tuna survey, and the LPS survey happens during the middle of summer. There is no LPS survey taking place when porbeagle sharks are present, so NMFS data is skewed.

Response: The LPS survey was designed to capture recreational landings in the Northeast during the time period when most fishing takes place north of Virginia. Currently, the survey consists of randomly selected weekly telephone and dockside intercept interviews, with mandatory participation from June 1 through October 31 from Virginia to New York. The survey is conducted July 31 through October 31 for states north of New York. Past phone surveys indicated this is when most of the fishing effort occurs in this region. As mentioned in the response to Comment 7, due to the rarity of porbeagle shark landings, it is difficult to estimate porbeagle landings with survey data. Therefore, NMFS may consider census data (*i.e.*, trip ticket or a call-in system where all porbeagle sharks landed are counted) in the future to better estimate recreational porbeagle landings.

Comment 9: NMFS should have recreational fishermen report their porbeagle landings.

Response: NMFS currently does not require recreational fishermen to report shark landings. NMFS collects data on recreational fishing catch and effort through the

LPS and the MRFSS, which is considered the best available science for determining recreational landings. These surveys collect data on fishing effort and catch of highly migratory species. In addition, randomly selected fishing tournaments are an important component of HMS recreational fisheries data. However, because of the rarity of porbeagle shark landings, in general, NMFS may not be capturing all of the porbeagle sharks landed recreationally through these types of surveys. Thus, NMFS is currently working on ways to gather more data on recreational landings of porbeagle sharks.

D.3 Retention Limits

Comment 1: The proposed 22 non-sandbar LCS retention limit is not economically feasible and is the equivalent of shutting down the fishery; NMFS should consider a trip limit of 30 to 75 non-sandbar LCS to maintain economic viability.

Response: NMFS is aware of the economic impacts of the proposed retention limits. The 22 non-sandbar shark LCS retention limit was calculated by dividing the available quota over average annual number of trips that landed non-sandbar LCS by directed and incidental permit holders as reported in the Coastal Fisheries logbook and the HMS logbooks. At the time of the Draft EIS, the available non-sandbar LCS quota was determined by the average annual landings reported in the HMS and Coastal Fisheries logbooks from 2003 to 2005. However, during the comment period, the Southeast Fisheries Science Center (SEFSC) recommended using HMS shark dealer reports (*i.e.*, southeast and northeast general canvass and SEFSC quota monitoring databases) to calculate historical landings of non-sandbar LCS since the stock assessments were, in part, based on landings reported by HMS shark dealer reports. The HMS shark dealer reports also include landings by both state and Federal shark fishermen, whereas logbook data only includes Federally permitted shark fishermen. Thus, dealer reports include all shark landings, which results in a higher non-sandbar LCS quota.

NMFS is using landings from the HMS shark dealer reports to revise the non-sandbar LCS quota based on SEFSC recommendations. After accounting for overharvests that occurred in 2007 (see Appendix C of the Final Environmental Impact Statement), NMFS would revise the retention limits based on the larger non-sandbar LCS quota. The final measures would implement a 33 non-sandbar LCS trip limit for directed permit holders and a three non-sandbar LCS trip limit for incidental permit holders. While the trip limit for directed permit holder has increased from what was proposed in the Draft EIS, NMFS is assuming that fishermen with directed shark permits would no longer target non-sandbar LCS outside the research fishery. Rather, a 33 non-sandbar LCS trip limit would allow fishermen to keep non-sandbar LCS while they target other species, such as reef fish and snapper-grouper. Based on BLL observer program from 2005 to 2007, fishermen with directed shark permits fishing for snapper/grouper kept, on average, 12 sharks per trip. A 33 non-sandbar LCS trip limit would allow fishermen to retain non-sandbar LCS that they catch while targeting other species, therefore, preventing excess discards. However, this retention limit would be too low for fishermen to target non-sandbar LCS; NMFS is aware that the revised retention limit of 33 non sandbar sharks per vessel/trip is a significant reduction from the current 4,000 lb dw LCS

retention limit for directed permit holders. Despite this, these measures are necessary to rebuild overfished stocks, reduce bycatch, and end overfishing.

Comment 2: NMFS should consider a per day limit in lieu of an individual trip limit. NMFS could reduce the limit to something like 2,000 lb non-sandbar LCS per day. This would allow a larger amount to be harvested in a single trip, making it more profitable for the fishermen. A day limit would also keep quota available for longer throughout the year.

Response: NMFS has not considered a per day trip limit because of the difficulty in determining how NMFS would monitor what a vessel lands within a 24 hour period. Currently the shark fishery is based on a per trip basis, as are most of the HMS fisheries. While a higher per day limit may allow for a larger single trip, which may reduce discards, it would be difficult for NMFS to monitor when a vessel left and returned to port and whether or not this was done multiple times within 24 hours, especially if vessels visited several ports and are not required to possess vessel monitoring systems (VMS). A per trip limit is easier to enforce; no matter what port a vessel returns to, they would be held to the same trip limit. While a per day limit may reduce the number of trips and elongate the season based on how gillnet and BLL trips targeting non-shark species typically fish, the trip limits under the preferred alternative suite 4 were devised in such a way to keep the non-sandbar LCS season open longer than they have been in the past. Given the reduced trip limits to accommodate the reduced shark quotas, NMFS believes that dividing the available quota across the historical fishing effort would help the shark fisheries stay open longer. In addition, since directed shark permit holders would presumably no longer target non-sandbar LCS based on those reduced trip limits and the prohibition on retention of sandbar sharks outside the research fishery, the non-sandbar LCS fishery would be incidental in nature where non-sandbar LCS are landed while fishermen target other species throughout the year.

Comment 3: NMFS should propose a 4,000 lb level per year for directed permit holders and grant the least productive vessels an incidental permit.

Response: Based on the reduced quotas from the latest shark stock assessment recommendations, a 4,000 lb dw LCS trip limit for directed shark permit holders would exceed sandbar TAC and blacktip landing recommendations. Based on the available quota (see Appendix C for more details), NMFS would set a non-sandbar LCS trip limit of 33 non-sandbar LCS for directed shark permit holders; incidental permit holders would be allowed 3 non-sandbar LCS per trip. Fishermen selected to participate within the shark research fishery would be afforded higher trip limits consistent with research objectives and would be allowed to land all shark species, except prohibited sharks.

In order for NMFS to change retention limits for individual vessels based on their past landing history, NMFS would have to consider an IFQ or LAPP program. However, as explained in response to Comment 2 under “*Quotas*” above and in Chapter 1, it would take NMFS several years to implement an ITQ system. Under the current timeline under the Magnuson-Stevens Act for establishing a plan amendment to end overfishing, NMFS has insufficient time to establish an IFQ or LAPP program for sharks. However, NMFS

would consider developing an IFQ or LAPP program for sharks as well as other highly migratory species in the future.

Comment 4: NMFS should carve out a retention limit specific to existing gillnetters. Gillnetters are being penalized by the preferred retention limit because they catch very few sandbar and dusky sharks.

Response: NMFS prefers revised quotas and retention limits for non-sandbar LCS that would apply to all gear types. These revised retention limits include a higher retention limit for directed shark permit holders compared to incidental shark permit holders. While sandbar and dusky sharks may be less likely to be caught in gillnet gear compared to BLL gear, setting separate gillnet retention limits was not considered as a part of this rulemaking mainly because NMFS has serious concerns regarding interaction rates with marine mammals and protected resources with gillnets. Given these interactions, NMFS would be reluctant to implement measures that increase fishing effort with this gear type. The five year incidental take statement (ITS) for the drift gillnet fishery is 10 loggerhead sea turtles (with 1 mortality), 22 leatherback sea turtles (with 3 mortalities) and 1 smalltooth sawfish (with zero mortalities). However from 2003 to 2007 (2003 being the start of the ITS period), drift, sink, and strike gillnets interacted with a total of 13 loggerhead sea turtles (3 of which died or were unresponsive when discarded), 1 leatherback sea turtle and 2 bottlenose dolphins (1 which died). In addition, in January 2006, an Atlantic right whale calf was caught and died in gillnet gear off the northeast coast of Florida. Therefore, NMFS is not endorsing gillnet fishing with a higher, specific gillnet retention limit at this time.

Comment 5: NMFS should consider capping the number of vessels that can deploy gillnets for sharks.

Response: There are currently only 4 to 6 sink and strike gillnetting vessels combined that target sharks (Carlson and Bethea, 2007). Given the reduction in trip limits as a result of this rulemaking, and restrictions and regulations under the Atlantic Right Whale Take Reduction Plan for this gear, NMFS does not believe there would be a significant increase shark gillnet fishing in the future.

Comment 6: NMFS should lower the incidental catch limit for non-sandbar LCS to be more in line with the current average (3 non-sandbar LCS/vessel/trip); NMFS should not decrease the directed permit holder retention limits by 30-percent while increasing the incidental retention limit by more than seven times; NMFS should provide better justification for raising the trip limits for incidental permit holders; the proposed retention limit increase for incidental permit holders could increase fishing effort and bycatch; NMFS should consider restricting incidental take of non-sandbar LCS.

Response: In the preferred alternative suite 4, NMFS would establish retention limits of 33 non-sandbar LCS for directed permit holders and 3 non-sandbar LCS retention limit for incidental permit holders. NMFS initially proposed retention limits that were similar for directed and incidental permit holders because NMFS considers the future non-sandbar shark fishery outside the shark research fishery as mainly incidental in

nature, (*i.e.*, fishermen would not target non-sandbar LCS based on the low retention limits). Under this scenario, incidental permit holders could have experienced a net positive economic benefit, given the retention limit of 22 non-sandbar LCS trip limit was more than the average 3 non-sandbar LCS per trip they currently retain. Therefore, such an increase in trip limits for incidental permit holders could have resulted in increased fishing pressure by incidental permit holders. Additionally, discards by incidental permit holders were lower than directed permit holders. On average, directed permit holders had more discards of sandbar and dusky sharks (8.1 mt dw and 25.7 mt dw per year, respectively) than did incidental permit holders (1.5 mt dw and 3.8 mt dw per year, respectively). This was mainly due to discards in the directed shark BLL fishery.

Based on public comment and to acknowledge differences among directed and incidental permit holders, NMFS is preferring to set separate retention limits based on permit type. Directed permit holders would be allowed a higher retention limit than incidental permit holders. This affords directed permit holders, who presumably paid more for their directed shark permit and rely on shark products for a larger part of their income, a higher retention limit than if all permit holders had the same retention limit.

Comment 7: NMFS should clarify how a retention limit based on the number of sharks per trip would work. What happens if you get 100 sharks on a line? Under these new regulations, one will have to make multiple trips to be legal.

Response: Currently, NMFS has a directed LCS trip limit of 4,000 lb dw. Under the current regulations, if fishermen exceed that trip limit on a given set, they often leave their gear in the water and go to port to offload their legal trip limit. Once offloaded, they return to retrieve the rest of their gear and catch. The same principle would apply for a trip limit based on the number of sharks allowed to be retained under Amendment 2 to the Consolidated HMS FMP. NMFS must decrease retention limits based on the results from the latest shark stock assessments. The Agency assumes that fishermen with directed shark permits would no longer target non-sandbar LCS as they have in the past because of the reduced retention limits and the fact that fishermen would no longer be allowed to possess sandbar sharks outside the shark research fishery. Rather, reduced non-sandbar LCS trip limits would allow fishermen to keep non-sandbar LCS while they target other species, such as reef fish and snapper-grouper. NMFS assumes that fishermen with directed shark permits would no longer make sets targeting sandbar and non-sandbar LCS outside the research fishery. However, a trip limit of 33 non-sandbar LCS for directed shark permits would minimize dead discards of sharks that fishermen catch while in pursuit of other species. Data from the BLL observer program from 2005 to 2007 indicate that fishermen with directed shark permits fishing for snapper grouper kept, on average, 12 sharks per trip.

Comment 8: NMFS should have proposed different retention trip limits for different species in different regions because there are more sandbars available in the Atlantic and more blacktip sharks available in the Gulf of Mexico; NMFS would split trip limits by state and the tendency of the area to catch sandbar or dusky sharks; NMFS should consider the fact that Louisiana fishermen catch mostly blacktip sharks and no sandbar or dusky sharks and, therefore, should have a larger retention trip limit.

Response: Based on public comment, NMFS analyzed regional quotas and retention limits for two regions (*i.e.*, Atlantic and Gulf of Mexico regions). As a result, NMFS would implement regional quotas based on the results of the blacktip shark assessment, overharvests that occurred in 2007 (for more details, see Appendix C), and the fact that the ASMFC is developing an interstate shark management plan that would implement measures in state waters of the Atlantic. Regional quotas would allow for a higher non-sandbar LCS quota in the Gulf of Mexico region, which is comprised of a healthy stock of blacktip sharks. It would also allow for a lower non-sandbar LCS quota in the Atlantic region where the stock status of blacktip sharks is unknown and the majority of dusky sharks are caught.

However, while NMFS is preferring regional quotas for non-sandbar LCS, NMFS would not implement regional non-sandbar LCS retention limits. Instead, the same retention limit for non-sandbar LCS would apply in the Atlantic and the Gulf of Mexico regions. NMFS believes that a single retention limit, regardless of region, would help with enforcement. Fishermen could move between the two regions and have the same retention limit regardless of region. Alternatively, having multiple retention limits in Federal waters based on each state's catch composition in the past would be difficult to enforce; having the same retention limit in both state and Federal waters helps with ease of enforcement. Finally, while historical fishing effort was used as a proxy for determining retention limits, it is uncertain how effort would be allocated among regions, or even states, in the future, which makes it difficult to determine a region-specific or state-specific retention limit, given the reduction in shark quotas.

Comment 9: NMFS should consider having a set-aside quota for the incidental fishermen so that they can still retain sharks when the directed fishery is closed.

Response: NMFS is assuming that fishermen with directed shark permits would no longer target non-sandbar LCS. Rather, reduced non-sandbar LCS trip limits would allow fishermen to keep sharks while they target other species such as reef fish and snapper-grouper. Since directed shark permit holders would presumably no longer target non-sandbar LCS based on those reduced trip limits and the prohibition on the retention of sandbar sharks outside the research fishery, the non-sandbar LCS fishery would be incidental in nature where non-sandbar LCS are landed as fishermen target other species throughout the year. Given the reduced trip limits for non-sandbar LCS, NMFS believes that the shark fishery would remain open for longer periods than in the past. Therefore, such a set aside would not be necessary in the future.

Comment 10: NMFS should consider a trip limit that is not based on weight since most fishermen do not have scales on their vessels.

Response: Under the preferred alternative suite 4, NMFS would not base trip limits on weight. Rather, trip limits would be based on the number of sharks per trip for both directed and incidental permit holders.

Comment 11: NMFS sandbar discard calculations are flawed. If NMFS claims that 7 out of 10 of LCS landed are sandbar sharks and NMFS has a 500+ mt dw non-

sandbar LCS quota, NMFS discard calculations are flawed. With a 500+ mt dw non-sandbar LCS quota, that is 3,500 mt of sandbars being discarded.

Response: NMFS used BLL reports from trips taken by directed permit holders with a 4,000 lb dw LCS directed trip limit to estimate the number of trips that the shark research fishery could take to harvest the available sandbar shark quota. Based on the observer data and a 4,000 lb dw trip limit, NMFS estimated that 70-percent of each trip, or 2,800 lb dw, would consist of sandbar landings. This catch composition was then used to determine the number of trips that could be taken within the shark research fishery to harvest the available quota.

The catch composition described above would only be realized if 1) fishermen were directing on sharks, and 2) there was a 4,000 lb dw trip limit. However, for trips outside the research fishery, sandbar sharks would be prohibited and there would be reduced non-sandbar LCS trip limits. Therefore, NMFS assumes that directed shark permit holders would no longer target non-sandbar LCS, and the catch composition used for trips in the shark research fishery would not apply to trips occurring outside the research fishery. Given this assumption, and based on the best available science from logbook, dealer reports, and observer program data, NMFS estimates that incidental sandbar mortality outside the research fishery would be approximately 40 mt dw. This estimate was determined by evaluating logbook data and observer reports to estimate sandbars discards from pelagic longline (PLL) gear (4.3 mt dw), discards by recreational fishermen (27 mt dw), discards within the shark research fishery (0.3 mt dw), sandbar sharks discarded by fishermen without HMS permits (6.3 mt dw), and sandbar sharks that used to be landed by incidental fishermen (2.3 mt dw).

D.4 Fins on Requirement

Support/Opposition for fins attached

Comment 1: NMFS received several comments in support of a ban on shark finning as well as support for the proposal to land sharks with their fins attached. Commenters believe that shark identification is hampered by fin removal, enforcement is made easier if sharks are landed with fins attached, that the quality of data collected would improve which is critical to improving the sustainability of sharks, and that technical difficulties of landing sharks whole could be alleviated with input from fishery experts and NOAA staff. A commenter also stated that NMFS should implement this measure promptly in the Atlantic while also taking steps to ensure a similar measure is implemented in the U.S. Pacific waters.

Response: On December 21, 2000, the Shark Finning Prohibition Act (Public Law 105-557) (Act) was signed into law. The Act amended the Magnuson-Stevens Act Section 307(1)(P), making it unlawful for any person “(i) to remove any of the fins of a shark (including the tail) and discard the carcass of the shark at sea; (ii) to have custody, control or possession of any such fin aboard a fishing vessel without the corresponding carcass; or (iii) to land any such fin without the corresponding carcass.” On February 11, 2002 (67 FR 6194), NMFS published a final rule that established regulations which,

among other things, prohibit any person from engaging or attempting to engage in shark finning; possessing shark fins without the corresponding carcasses while on board a U.S. fishing vessel; and landing shark fins without the corresponding carcasses. In this Amendment, NMFS is selecting an alternative that would require fishermen to land sharks with their fins attached to improve enforcement, species identification, data quality for future stock assessments, and to further prevent the practice of shark finning. In the U.S. Pacific Ocean, three Regional Fishery Management Councils are responsible for shark management: the Pacific Fishery Management Council, the North Pacific Fishery Management Council, and the Western Pacific Management Council. Amending fishery management plans to include measures to land sharks with fins attached in the U.S. waters of the Pacific Ocean would need to be considered by the three Fishery Management Councils.

Comment 2: NMFS received several comments in opposition to landing sharks with fins attached stating that this requirement would result in large amounts of waste at the dock, that the market has grown accustomed to receiving sharks in log form, that it will be more difficult for law abiding fishermen to comply with the law, and it will do nothing for those intent on breaking the law who may still bring only fins to the docks.

Response: NMFS does not believe that the requirement to land sharks with fins attached is overly burdensome for the following reasons. The requirement to land sharks with fins attached would allow fishermen to leave the fins attached by just a small piece of skin so that the shark could be packed efficiently on ice while at sea. Shark fins could then be quickly removed at the dock without having to thaw the shark. Sharks may be eviscerated, bled, and the head removed from the carcass at sea. These measures should prevent excessive amounts of waste at the dock, since dressing (except removing the fins) the shark may be performed while at sea. While this would result in some change to the way in which fishermen process sharks at sea, because the fins may be removed quickly once the shark has been landed, NMFS expects that the market would continue to receive sharks in their log form. No person aboard a vessel with a shark permit would be allowed to possess shark fins without the fins being attached to the corresponding carcass until the shark is landed. Individuals that do not have a shark permit or who land sharks fins detached from the corresponding carcass would be in violation of the regulations and subject to enforcement action.

Issues with the 5-percent fin-to-carcass ratio

Comment 3: NMFS received several comments regarding the 5-percent fins to carcass ratio stating that 1) the ratio is wrong and NMFS needs to collect data to re-examine the ratio because it is different for all species, 2) NMFS should urge Congress to revise the fin to carcass ratio in the Shark Finning Prohibition Act, 3) making fishermen land sharks with fins attached could still lead to a violation of the 5-percent ratio, and 4) fishermen are unsure of which weight to record in their logbook if the 5-percent ratio remains in effect and sharks are landed with fins attached.

Response: NMFS first implemented the 5-percent fin to carcass ratio in the 1993 Shark FMP. This ratio was based on research that indicated that the average ratio of fin

weight to dressed weight of the carcass was 3.6-percent, and the sandbar fin ratio was 5.1-percent. In the shark research fishery, NMFS may conduct additional research on the fin to carcass ratio. In December 2000, the Shark Finning Prohibition Act (Act) was signed into law. The Act established a rebuttable presumption that any shark fins landed from a fishing vessel or found on board a fishing vessel were taken, held, or landed in violation of shark finning if the total weight of shark fins landed or found on board exceeded 5-percent of the total weight of sharks carcasses landed or found on board. It was implemented by NMFS through a final rule released in February 2002. Thus, any changes to the 5-percent ratio would have to be modified by Congressional action. In order to help fishermen document that sharks were landed with their fins attached, NMFS would modify the dealer weigh-out slips so that it may be clearly documented that the sharks were landed with fins attached. Consistent with the regulations at § 635.30(c)(3), a person that has been issued a Federal shark LAP and who lands shark in an Atlantic, Gulf of Mexico, or Caribbean coastal port must have all fins and carcasses weighed and recorded on the weigh-out slips specified in § 635.5(a)(2) and in accordance with regulations at part 600, subpart N. Fishermen may either record the weight of the whole shark landed or they may record carcass and fin weights separately.

Conversion from whole weight (ww) to dressed weight (dw)

Comment 4: NMFS received several comments, including one from the state of Florida, that NMFS should recalculate the conversion factor between dressed weight and whole weight of a shark since more of the shark is going to be landed.

Response: The 1.39 conversion factor from dressed weight to whole weight is used to convert the dressed (gutted) weight of a shark, (the weight of the shark carcass in a log form with fins removed) to a whole weight. NMFS would continue to monitor shark quotas in dressed weight (*i.e.*, carcass in log form with fins removed) and would use shark landings recorded via dealer reports to monitor the quota outside the shark research fishery. Therefore, the conversion factor would not need to be recalculated since the definition of dressed weight would still constitute a shark log with fins removed. However, NMFS would monitor the situation and would change the conversion factor if needed. Currently, dealers record the fin weights and dressed weight of the shark carcasses separately on their dealer reporting forms; NMFS would ask dealers to continue reporting fin weights and dressed shark carcasses separately on their forms in the future. However, if the processing of shark carcasses changes, NMFS would recalculate and change the conversion factor, as appropriate.

Leaving some of the fins attached and provision of a diagram

Comment 5: NMFS received several comments stating that NMFS should allow fishermen to remove just one pectoral fin, remove all fins except the pectoral fins, allow the removal of fins from species in the SCS complex, and that vessels operating in the shark research fishery should be allowed to remove the fins since those vessels would have 100-percent observer coverage. NMFS also received several comments from the State of Florida that NMFS should allow fishermen to remove the tail of the shark at sea

and that NMFS should provide fishermen with a diagram depicting the proper way to clean and land sharks with fins attached.

Response: The provision to land sharks with their fins attached would allow fishermen to bleed, eviscerate, and remove the head at sea while cutting the fins almost all the way off so that the fins can be folded and the shark can be packed on ice. Authorizing the removal of certain fins or the fins of a specific species, or within a species complex, or from vessels within the research fishery could create enforcement problems and loopholes in the regulations. Therefore, NMFS is requiring that all fins remain attached to the carcass through landing for all vessels. Because there are potentially many ways that the sharks may be dressed while leaving the fins attached, at this time, NMFS does not want to provide specific instructions on how to dress sharks. NMFS only requires that sharks must be landed with their fins naturally attached. Fishermen are allowed the flexibility to dress the shark and tailor the method to their specific operation, providing they land all sharks with their fins naturally attached.

Hazardous Analysis of Critical Control Point: product quality concerns

Comment 6: NMFS received several comments regarding the potential food safety or Hazardous Analysis of Critical Control Point (HACCP) concerns if shark fins cannot be removed until the shark is landed because it may be difficult to keep the core temperature of the shark at 40 degrees in 90 degree heat. The state of Florida commented that NMFS should test shark meat quality to determine if there is a decrease in quality as a result of regulatory actions.

Response: The Food and Drug Administration (FDA) published regulations (December 18, 1995; 60 FR 65092) that mandate the application of the HACCP principles to ensure the safe and sanitary processing of seafood products. Although these regulations do not apply to fishing vessels or transporters, the processors of domestic seafood must take responsibility for the incoming product. Dealers should consult the FDA Center for Food Safety and Applied Nutrition Fish and Fisheries Products Hazards and Controls Guidance, for further information. The provision to land sharks with their fins attached would allow fishermen to bleed, eviscerate, and remove the head at sea while cutting the fins almost all the way off so that the fins can be folded and the shark can be packed on ice. Because the sharks may be dressed and the fins cut almost all the way off the shark at sea before it is packed on ice, the shark should not have to be thawed to completely remove the fins once the shark is landed. In addition, reduced retention limits would reduce the number of sharks that are landed per trip, therefore decreasing the amount of processing time at the dock. Research conducted through the shark research fishery, which would be afforded higher retention limits, and thus, increased processing times, can be conducted to test if new requirements affect fish meat quality.

International cooperation and banning imports

Comment 7: NMFS received several comments regarding international cooperation and imports including, 1) NMFS should set a firm shark conservation precedent for the international community, 2) NMFS should not get too far out in front of

the international community, and 3) that the United States should ban imports of shark fins from countries that do not prohibit shark finning.

Response: The United States has taken an active role in promoting improved international shark conservation and management measures in international fora such as Regional Fisheries Management Organizations, the United Nations General Assembly, the Convention on International Trade of Endangered Species, and the Convention on Migratory Species. Consistent with the United Nations Food and Agricultural Organizations' International Plan of Action for sharks, the United States completed and implemented the National Plan of Action (NPOA) for sharks in February 2001. The NPOA calls for data collection, assessment of elasmobranch stocks, development of management measures, where appropriate, research and development of mitigation measures to reduce shark bycatch, and outreach and education. The requirement to land sharks from the U.S. Atlantic Ocean with their fins attached would help raise awareness in the international arena of enforcement issues associated with shark finning bans and the 5-percent fin to carcass ratio. NMFS published a proposed rule on April 4, 2008 (73 FR 18473), that would amend the International Trade Permit (ITP) Program to require shark fin importers, exporters, and re-exporters (shark fin traders) to obtain an ITP. This requirement would provide needed information on shark fin trade participation and would provide NMFS enforcement access to trade records, since the export of shark fins is one of the primary economic incentives for much of the U.S. Atlantic shark fishery.

D.5 Time Area

Comment 1: NMFS should include the Marine Protected Areas (MPAs) recommended by the South Atlantic Fishery Management Council (SAFMC) in alternative suite 5 because if that alternative were selected, the MPAs proposed by the SAFMC would still need to be implemented.

Response: NMFS decided to include a prohibition on shark BLL fishing in the MPAs in several of the alternative suites in order to ensure that the SAFMC's Amendment 14 prohibition on bottom tending gear would include HMS BLL gear. NMFS needed to implement complementary regulations in order for the MPAs to be effective. Since alternative suite 5 would result in a closure of the entire shark fishery, no shark BLL fishing would occur in the MPAs or elsewhere. Thus NMFS did not need to include a prohibition on shark BLL fishing in MPAs in alternative suite 5.

Comment 2: NMFS received a number of specific comments regarding the MPAs being implemented by the SAFMC, including: 1) coordinates of MPAs – NMFS should provide the correct coordinates for the Charleston Deep Artificial Reef MPA; 2) NMFS should state the specific type of MPAs being implemented (*i.e.*, type II MPAs); and, 3) NMFS should include a transit exemption for vessels traveling through proposed MPAs with BLL.

Response: NMFS is aware of problems with the coordinates provided in the Draft Amendment for the Charleston Deep Artificial Reef. NMFS has provided the correct coordinates for the Charleston Deep Artificial Reef in the Final Amendment 2 to the

Consolidated HMS FMP. In the Draft EIS, NMFS described the MPAs as type II MPAs according to the language used in the SAFMC's Amendment 14. Type II MPAs areas are closed to bottom fishing but allow trolling for coastal pelagics and HMS. Since NMFS is prohibiting the use of BLL gear in these MPAs there is no need to specify the type of MPA in the proposed or final rules. Readers should refer to Amendment 14 for more information on the type of MPAs being implemented by the Council. NMFS did not implement a stowage provision because very few HMS permitted vessels have historically fished in the MPAs, the MPAs are generally small in size, and can easily be circumnavigated by BLL vessels. If the SAFMC implements a stowage provision, then NMFS may consider a similar backstop provision in the HMS regulations.

Comment 3: NMFS should implement VMS requirements for the SAFMC Amendment 14 MPAs.

Response: Since the Council's Amendment 14 does not include a VMS requirement, NMFS decided not to implement a VMS requirement for HMS vessels either. NMFS has several other VMS requirements in place for HMS vessels including all vessels with gillnet gear during certain times of the year, BLL vessels in the vicinity of the mid-Atlantic shark closed area, and all vessels with PLL gear on board year-round. To the extent that some of those vessels would fish in the vicinity of the MPAs, NMFS would be able to track their movements. However, most vessels that do not fish with PLL and maintain directed or incidental shark permits in the South Atlantic are not required to have VMS.

Comment 4: NMFS should use the terms "closed areas" or "area closures" to describe the locations where the proposed regulations apply to avoid confusion on the intent of the MPAs (since they are for snapper/grouper, and not sharks) and to improve compliance by fishermen. Marine protected area is not a term used in the Magnuson-Stevens Act. NMFS should clarify how and why closures for fisheries management are part of the official MPA classification system.

Response: NMFS chose to use the term MPA because that is the specific language provided in Amendment 14, and because NMFS is supporting the Council's Amendment 14 regulations at the request of the SAFMC. Although NMFS agrees that the intent of the MPAs is to protect snapper grouper species, NMFS wanted to avoid confusion that may result by using different nomenclature to refer to the closures included in Amendment 14. NMFS is referring to the closures as the SAFMC MPAs.

Comment 5: NMFS should prohibit the use of longline gear in existing and new MPAs. The overall amount of bycatch within MPAs may not be minimal when considered in the context of the relevant MPA and the number of species and individuals found within the MPA.

Response: NMFS is prohibiting the use of BLL gear in all of the preferred SAFMC MPAs because those are the areas considered most important for certain grouper species that are sometimes caught incidentally on shark BLL gear.

Comment 6: The ASMFC Spiny Dogfish and Coastal Sharks Management Board would like NMFS to reconsider the closures off of North Carolina. Specifically, the Board asks that the duration of the closure be reduced to run from January 1 – May 14. This request is based on the Coastal Sharks Technical Committee’s recommendation for a state water closure from May 15 through July 15 from Virginia to New Jersey. This state water closure is designed to protect large adult female sandbar sharks when they are on the pupping grounds. The closure off of North Carolina was designed to protect juvenile sharks in the nursery area in the winter, however the majority of the small sharks have migrated out of that area by mid-May.

Response: The mid-Atlantic shark closed areas was implemented to protect juvenile sandbar sharks and all life stages of prohibited dusky sharks. Survey data collected from the NOAA fisheries research vessel Delaware II from April through May 2007 indicate that the majority of sandbar sharks caught in the mid Atlantic shark closed area were juvenile (56-percent immature vs. 44-percent mature). Therefore, maintaining the mid-Atlantic closed area would continue to reduce the number of interactions of BLL gear with sandbar and dusky sharks as well as reduce the number of interactions with immature sandbar and dusky sharks. This would provide positive ecological benefits for both of these overfished shark stocks. Furthermore, measures implemented by the ASMFC are not yet finalized. Once finalized measures are in place, the Agency may consider taking additional action to complement state measures. Implementing these measures before they are finalized in the ASMFC plan could result in inconsistent management measures.

Comment 7: The SAFMC and the South Carolina Department of Natural Resources support the time area closures as proposed in the draft amendment.

Response: NMFS plans to implement the MPA provisions in Amendment 14.

D.6 Reporting

Comment 1: NMFS should take action to ensure that fishermen report their landings correctly and honestly as most fishermen do not currently provide accurate reports.

Response: The regulations require fishermen to submit accurate and truthful reports on their fishing activities. If fishermen chose not to abide by these regulations, then they may face enforcement action.

Comment 2: NMFS received many comments on the dealer reporting timeframe, including: NMFS should consider stronger restrictions on dealer reporting; NMFS should allow two-weeks for dealer reports to be submitted; 10 days is acceptable for the report to be postmarked, but not for NMFS to receive it; NMFS should consider more frequent reporting; NMFS should consider 24 hour reporting for shark dealers; NMFS should consider electronic reporting for dealers (once a week); dealers still need to be able to fax reports; more frequent reporting is not needed. NMFS should take action against dealers

that are not reporting; NMFS should not renew a dealer permit if they don't report on time; making reports "received by" will not allow fishermen to know if NMFS got their report on time; NMFS should provide confirmation numbers when dealer reports are received.

Response: NMFS prefers to require dealer reports be received within ten days of the end of the reporting period at this time. NMFS may consider additional modifications and/or adjustments to reporting frequency for future implementation. The preferred alternative suite 4 does not require twenty-four hour reporting as such reporting would result in a significant increase in reporting burden for shark dealers. NMFS is concerned about dealers that are not reporting and is working with National Oceanic Atmospheric Administration's (NOAA) Office of Law Enforcement to pursue shark dealers who do not meet their reporting obligations. NMFS is currently capable of accepting electronic reports and faxes of shark dealer landings. NMFS does not issue confirmation numbers when shark dealer reports are received. Submitting dealer reports by FAX or email would include a date/time stamp in addition to whether the transmission was successful or not. Shark dealers may also consider using certified mail to provide verification that the correspondence was received.

Comment 3: NMFS should be more proactive and contact dealers as the quotas fill up.

Response: Significant overharvests in the shark fishery in recent years have occurred because shark dealers were not submitting their reports in the time period required by NMFS regulations. NMFS is working to ensure better compliance with its reporting regulations by encouraging shark dealers to report on time or face possible enforcement action for failing to do so.

Comment 4: Does NMFS have a specified time that it must turn around dealer reports?

Response: The Agency provides shark landings reports, by complex or species, on a frequent basis to ensure participants are aware of catches in the shark fishery. The Agency does not have a specified time frame as to when it provides landings reports; however, efforts are being made to provide more frequent shark landings updates in light of NMFS' preferred alternative to close seasons when a species/complex quota has reached 80-percent of their quota.

Comment 5: NMFS should stick to its existing reporting system rather than create a new one.

Response: The Agency agrees with this comment and will not be instituting a new reporting system.

Comment 6: NMFS should not allow sharks to be listed as unclassifieds and, if dealers continue to report unclassifieds, they should have their permits revoked. Unclassified sharks should not be counted against the sandbar shark quota because the sandbar shark quota for the research fishery is already miniscule.

Response: Current regulations require that all sharks landed should be identified and reported at the species-level. While it is in violation of the current regulations to report sharks as unclassifieds, and the Agency has recently completed shark identification workshops to improve shark dealers' identification skills, the Agency must account for unclassified shark landings in near real-time in order to produce timely and accurate shark landings reports as unclassified landings would likely continue to occur. The Agency would use species composition data from the observer reports outside the shark research fishery to determine which proportion of unclassified sharks should be deducted from the appropriate quotas (*i.e.*, sandbar, non-sandbar LCS, SCS, and pelagic sharks). This methodology is consistent with how unclassified sharks are treated in stock assessments. Shark dealers that continually report sharks as unclassified would be reported to NOAA Office of Law Enforcement and may face enforcement action.

NMFS had originally proposed counting all unclassified sharks from shark dealer reports as sandbar sharks to provide dealers with an incentive to identify sharks to the species level because if the quota for sandbar sharks were filled, they would no longer be able to purchase sandbar sharks. However, the Agency believes that allocating landings to the appropriate complex/species based on observer data is a more accurate means of accounting for unclassified landings. Furthermore, the Agency is concerned that counting all unclassified sharks as sandbar sharks may result in the shark research fishery closing prematurely.

Comment 7: NMFS received a comment stating that a dealer had inadvertently reported all sharks landed in the past as sandbar sharks and that they knew of no dealers that identify sharks to species.

Response: All dealers are required to report shark landings at the species level. The Agency has instituted shark identification workshops to assist dealers in properly identifying sharks in order to obtain more accurate landings data.

Comment 8: NMFS received a comment wondering how the stock assessments can use the dealer data because of the lack of species-level landings data for sharks.

Response: Similar to the final measures being implemented in Amendment 2 to the Consolidated HMS FMP, stock assessments assign unclassifieds to a species/complex group based on species composition data from the observer program. Regional and temporal species composition data attained from observed trips are summarized and applied to the unclassified sharks to estimate the proportion that should be assigned to respective quotas and complexes.

Comment 9: NMFS received a comment in support of the workshops for shark identification because dealers have observed a drastic reduction in the number of sharks that are not being identified properly.

Response: NMFS is encouraged by the results of the shark identification workshops for dealers. Better shark identification should lead to more accurate landings data which should improve the quality of data used in stock assessments.

Comment 10: NMFS received several comments on the “dealer” definition (*i.e.*, who is required to have a dealer permit), including: NMFS should provide the current definition of a shark dealer; the current definition is satisfactory; the proposed dealer definition is appropriate; the first receiver cannot be the shark dealer; an intermediary on land is needed solely for transport; and, the definition should take into account multiple transfers.

Response: The current definition of a shark dealer is anyone who has a valid permit for shark and purchases sharks from the owner or operator of a vessel who has a valid commercial shark permit (50 CFR 635.31 (c) (4)). To clarify who needs to attend the workshops and to aid enforcement, in the proposed rule, NMFS modified the definition of shark dealers and requested public comments on this new definition. Specifically, NMFS proposed to modify this definition and include a definition for “first receiver” at 50 CFR 635.2: “First receiver means the entity, person, or company that takes, for commercial purposes, immediate possession of the fish, or any part of the fish as long as the fish are offloaded from a fishing vessel of the United States, as defined under 600.10”. As a result of public comments received and suggestions from the Advisory Panel and enforcement, NMFS is modifying the proposed definition.

Comment 11: Can federally permitted dealers buy state landed sharks? Do federally permitted dealers have to report state landings?

Response: The current regulations at 50 CFR 635.31 (c)(4) state that only dealers that have a valid permit for shark may purchase a shark from the owner or operator of a fishing vessel. Dealers may purchase a shark only from an owner or operator of a vessel that has a valid commercial permit for shark, except that dealers may purchase a shark from an owner or operator of a vessel that does not have a commercial permit for shark if that vessel fishes exclusively in state waters (*i.e.*, no Federal commercial shark permit). Federal dealer permit holders must report all sharks landed, including those from state waters, and cannot purchase any sharks, caught in state or Federal waters, once the Federal shark fishing season is closed.

Comment 12: NMFS received a comment questioning the mechanism that keeps dealers reporting on time.

Response: All federally permitted shark dealers are required to submit a dealer report on a bimonthly basis. Failure to do so could result in enforcement action.

Comment 13: NMFS should implement the strongest possible restrictions to ensure prompt and reliable reporting by dealers, within 24 hours if possible. Landings of 300 to 500-percent of allowable quotas, even if subtracted in subsequent seasons, are simply not acceptable and do not reflect the close attention and precautionary action required to achieve sustainable shark fisheries.

Response: NMFS agrees that accountability measures for quota overages are necessary to maintain a balance between fishery removals and rebuilding. Final measures would include closing the fishery for a particular species when 80-percent of the quota is

reached with five days notice upon filing in the Federal Register in order to reduce the likelihood of overharvests. NMFS would also send out e-mail notices and outreach regarding closures upon filing in the Federal Register, giving fishermen five days to be notified of a closure. Reduced retention limits and other effort control measures are expected to reduce fishing mortality in the shark fishery. In addition, under the preferred alternative suite 4, NMFS would change the reporting requirements for shark dealers so that shark dealer reports must be received by NMFS within 10 days after the reporting period ends. This would ensure timelier reporting and potentially avoid overharvests.

Comment 14: NMFS received several comments regarding excess shark landings in state waters and NMFS' coordination with various states, including: NMFS should preempt the state of Louisiana or others as necessary pursuant to authority provided in the Magnuson Stevens Act (§306 paragraph (b)) if shark landings in state waters impact Federal shark fishery management; NMFS should recognize that Federal fishermen are catching adults during designated fishing seasons, while state fishermen are catching juveniles all year long; NMFS should allow Federally permitted fishermen to fish in state waters; NMFS should ensure that state waters are closed at the same times as Federal waters to protect juveniles; NMFS should consult with the states in order to manage fisheries better; NMFS should require states to abide by Federal rules; NMFS should coordinate with the ASMFC.

Response: Pursuant to the Magnuson-Stevens Act, NMFS has jurisdiction to manage fisheries in Federal waters of the Exclusive Economic Zone (EEZ). Landings in state waters are counted against Federal shark quotas because many shark species inhabit both Federal and state waters, and thus make up one population or stock. NMFS includes state landings in stock assessments for coastal sharks. This practice is consistent with quota monitoring and management strategies for many marine species.

NMFS has been working with the State of Louisiana, and other states, to ensure consistent management strategies for sharks in state and Federal waters due to excessive landings that occurred in Louisiana state waters in 2007. In 2007, the State of Louisiana agreed with NMFS to close its state waters until Amendment 2 is effective in 2008. Simultaneously, ASMFC is implementing a coast-wide state shark plan for states in the Atlantic Ocean. The final measures included in this plan are expected to be effective in 2008. The Agency is working with the ASMFC to ensure that consistent measures would be considered for Federal and state waters once the ASMFC plan is in place. Once implemented, this state shark plan could potentially lead to similar measures being implemented in the Gulf of Mexico.

Comment 15: NMFS should provide information in the shark landings update on the percentage of total shark landings that are state and Federal.

Response: Federal dealers must report all landings, however, they are not required to differentiate which landings are purchased from Federal vessels and which shark products are purchased from state vessels (if a Federal dealer also has a state dealer permit). Current reporting requirements make it difficult to determine state versus Federal landings.

Comment 16: The stock assessment does not take the area inside state waters into consideration.

Response: Stock assessments include both fishery dependent and fishery independent landings and effort data from state and Federal waters.

Comment 17: NMFS should not mandate that all shark fishing stop entirely once the sandbar quota is met.

Response: NMFS would not close both the sandbar and non-sandbar LCS fisheries if either quota was met. Rather, NMFS would close the sandbar and non-sandbar LCS quota, individually, if either reaches 80-percent of their respective quotas.

Comment 18: The State of Florida supports decreasing the length of time it takes to supply NMFS with landings information used to manage the shark fishery. NMFS should also decrease the time it takes to make this information available to the public. The time required for NMFS to process such information should be public knowledge.

Response: The Agency makes every attempt to provide timely reports of shark catches to constituents on a frequent basis in order for fishermen to plan their activities accordingly. However, it is also necessary to ensure that shark landings data are accurate prior to making them available to the public. NMFS would attempt to provide more frequent shark landings updates in the future.

D.7 Seasons

Comment 1: The change to one commercial season would lead to derby fishing.

Response: NMFS believes that having a commercial season that opens January 1 and remains open until 80-percent of the quota is achieved would reduce the need for fishermen to engage in derby fishing. Furthermore, the retention limits represent a significant reduction for directed permit holders compared to previous limits. Derby fishing is more likely when seasons are shorter in duration and retention limits are conducive to trips targeting sharks exclusively. The preferred alternative would result in one season, opening January 1. The season is expected to remain open longer as fishermen outside the research fishery are not expected to make trips targeting non-sandbar LCS because of reduced retention limits and the prohibition on the retention of sandbar sharks.

Comment 2: NMFS received several comments including a comment from the State of Florida regarding the proposal to open shark seasons on January 1, including: NMFS should consider the fact that not all shark species are present in all regions in equal abundance on January 1; July 15th may be a more appropriate time to open the season; January 1 may be good for sandbar sharks but not other species; opening the season at another time may result in the quota being filled before sharks arrive in some regions; the season should be opened on January 1.

Response: NMFS is aware of the fact that sharks are migratory and present in different areas, at different levels of abundance, at different times of the year. As described in the proposed rule, and preferred in the final EIS, NMFS would only allow landings of sandbar sharks by a limited number of vessels selected to participate in a shark research fishery. Therefore, only vessels participating in this fishery would be authorized to target sandbar sharks. Vessels outside the research fishery would be allowed to keep 33 non-sandbar LCS for directed permit holders and 3 non-sandbar LCS for incidental permit holders. NMFS anticipates that this reduced retention limit would result in directed shark fishermen no longer targeting non-sandbar LCS outside the research fishery. Rather, shark fishermen would be authorized to keep non-sandbar LCS incidentally caught while targeting other species. Given fishermen outside the research fishery would no longer target non-sandbar LCS, NMFS expects that the shark seasons would be open longer, and fishermen in the regions that have non-sandbar LCS present later in the year would still be able to harvest non-sandbar LCS when they are present. In addition, opening the season on January 1 should allow the shark fishery to overlap with open seasons for other non-shark species and may reduce regulatory discards that may occur as a result of keeping the shark season closed until later in the year.

Comment 3: NMFS received numerous comments, including comments from the ASMFC and the State of Florida that NMFS should open the season on July 15 instead of January 1 so the season would be open when sharks are present in all areas and to prevent fishing mortality during shark pupping season. Other comments included: NMFS should not allow shark fishing during April, May, and June as these months are when shark pupping occurs and state waters should be closed from May 15 through July 15 to protect pupping; considering the size of the quota, shark migration patterns, and the ASMFC closure, it is likely that the quota would be harvested before sharks become available to fishermen in the North Atlantic; beginning the fishing season on July 16 would allow the quota to be shared geographically; opening the fishing season in July would reduce mortality of pregnant females and ensure that northern states have access to the fishery.

Response: Opening the season on January 1 and keeping it open until 80-percent of a quota is achieved may result in pregnant or neonate sharks being landed. However, given the low retention limits for non-sandbar sharks outside the research fishery and because fishermen would not be allowed to retain sandbar sharks outside the research fishery, NMFS expects that fishermen with directed shark permits outside the research fishery would no longer target non-sandbar LCS. This should reduce overall shark mortality, including mortality of pregnant females during pupping season. NMFS expects that the reduced retention limits outside the research fishery would result in fishermen with directed shark permits no longer targeting non-sandbar LCS on any given trip. However, the retention limits would allow fishermen to keep non-sandbar LCS that they catch while targeting other species. If the season is closed from April through June or July, vessels that land sharks while targeting other species would have to discard all sharks. The ASMFC is currently developing an interstate shark management plan for sharks in state waters of the U.S. Atlantic Ocean. Since most shark pupping occurs in state waters, the ASMFC plan may be more appropriate for addressing fishing mortality of pregnant females or neonate sharks; however, this plan has not been finalized.

However, Federal measures may be modified in the future depending on finalized measures in Atlantic state waters as a result of the ASMFC shark plan.

The shark fishery has traditionally been managed on a calendar year, and NMFS prefers to maintain this practice. The Agency anticipates that the shark fishery would be open for a longer duration than it has in the past because of the reduction in retention limits for non-sandbar sharks and the fact that sandbar sharks may not be retained outside of the shark research fishery. Thus, the shark fishery will be open at the same time as other fisheries. This would allow fishermen in these fisheries to keep incidentally landed non-sandbar LCS, therefore, reducing dead discards. Opening the shark fishing season later in the year may allow the quota to be shared more geographically as sharks would be present in all regions. However, having the season closed from January 1 through July 15 would also translate to discards as fishermen pursuing other target species with longline or gillnet gear in regions where sharks are present would not be able to retain any sharks. In addition, the majority of permit holders in the shark fishery live in regions where there are sharks present on January 1, and markets are also geared to receive shark product at the beginning of the year after seasons have traditionally been closed in November and December.

Comment 4: NMFS should provide more advance notice of season openings because fishermen have had a hard time planning how much bait they need to buy, planning for freezer spaces, *etc.*

Response: The current regulations require that NMFS complete proposed and final rulemaking prior to the establishment of shark seasons. Under the preferred alternative suite, NMFS would open the fishing season on January 1 each year (except 2008). The season would likely remain open longer, dependent upon available quota. A final rule published in the Federal Register prior to the opening of the subsequent season's start date (January 1) would provide information on the available quota, retention limits, and other pertinent information. A proposed rule giving notice of the anticipated quotas and season dates would be published in September or October each year prior to the final rule. The public would have the opportunity to comment on the proposed rule that contains the quotas and other information regarding the forthcoming season.

Comment 5: NMFS should implement one shark fishing season.

Response: NMFS is implementing one season, starting January 1 each year. This date is more likely to overlap with open seasons for other BLL and gillnet fisheries, and also provides fishermen a full calendar year to harvest available quota.

Comment 6: NMFS should ensure smaller amounts of shark are consistently available throughout the year to help increase the price and marketability of sharks since restaurants would know they could count on it year round. Currently, with such short seasons, there is not really a market.

Response: The Agency is aware that short seasons under existing trip limits may quickly flood markets, depressing prices for some shark products, particularly shark meat. Shark meat prices are more likely to be affected by the short seasons because there is less demand for shark meat than for shark fins. The majority of shark fins are exported to other countries and prices tend to remain higher and more stable than shark meat. In the past, fishermen with a directed shark permit were capable of making profitable trips exclusively for sharks. Reduced retention limits and prohibiting retention of sandbar sharks outside the research fishery would reduce the likelihood that fishermen would make trips targeting non-sandbar LCS outside the research fishery. Rather, fishermen are more likely to harvest non-sandbar LCS incidentally while targeting other species. NMFS expects that a fishing season that opens on January 1 each year with lower retention limits will result in smaller quantities of shark product being available for a larger proportion of the year. This could conceivably increase demand and marketability of shark products because the availability of meat and fins would be more reliable throughout the year compared to the past when shark seasons were only open for short periods of time. This increased demand for shark products on the behalf of wholesalers may translate to elevated prices received by shark fishermen for shark meat and fins.

Comment 7: NMFS should elaborate on the reasons that trimesters were originally implemented for the commercial shark fishery. Trimesters may still be necessary to reduce fishing mortality.

Response: Trimesters were originally implemented to provide a higher degree of resolution on which to manage seasonal shark fisheries. Furthermore, trimesters may reduce fishing mortality during peak pupping seasons and may be used to address other bycatch concerns. This rulemaking would implement significant measures to reduce fishing mortality of sharks, predominantly by modifying quotas, retention limits, and species authorized to be landed in commercial and recreational fisheries.

These measures would reduce the mortality of pregnant females. Furthermore, the closed area off the coast of North Carolina, which is important habitat for dusky and sandbar sharks, would continue to be in effect. The Agency expects that shark seasons would be open during a larger proportion of the year so that a limited number of sharks may be landed and possessed while fishermen are pursuing other species with longline or gillnet gear. NMFS does not expect that fishermen would be able to make a profitable trip “targeting” sharks with the preferred retention limits and because of the fact that sandbar sharks may not be possessed outside the shark research fishery. The resultant incidental fishery would translate to significant benefits to shark populations as a whole, and pregnant females in particular and thus eliminate the need to maintain trimesters.

Eighty Percent Threshold with 5 Days Notice Upon Filing in the Federal Register

Comment 8: Closing the season when landings reach the 80-percent threshold should be sufficient, but can the other 20-percent of the quota be filled in five days? NMFS should consider closing the shark fishery at 90 to 95-percent of the quota and consider re-opening a season if the quota has not been caught for a given season.

Response: The Agency requested public comment specifically on setting 80-percent as a threshold for closing the fishery because it allows a substantial amount of the harvest to occur, yet allows a sufficient buffer to prevent overharvest from the time the 80-percent is reached until the time NMFS can actually close the fishery. The Agency's goal is to allow fishermen to harvest the full quota without exceeding it in order to maximize economic benefits to stakeholders while achieving long-term conservation goals and preventing overfishing. A five-day notice upon filing in the Federal Register would allow fishermen to complete fishing trips that have already been initiated and/or provide fishermen the chance to catch the remaining 20-percent of the quota if they embarked on additional trips prior to the closure. As mentioned previously, the reduced retention limits and the fact that fishermen outside the research fishery would not be allowed to land sandbar sharks is expected to reduce the number of trips targeting non-sandbar LCS and keep the shark season open year-round. Additionally, NMFS must take into account state landings that continue to occur after closure of the Federal fishery.

NMFS believes that closing the fishery at 90 to 95-percent of attaining the quota would likely result in overharvests. Overharvests would result in reduced quotas in the future since all overharvests would be accounted for when establishing subsequent seasons and quotas.

The Agency expects that the quota would continue to be harvested between the time that the 80-percent threshold is reached and the time that the season actually closes - five days after the filing of such a notice in the Federal Register. The Agency must also account for late reporting by shark dealers and provide some amount of buffer to include landings received after the reporting deadline in an attempt to avoid overharvests.

Comment 9: NMFS should allow more time prior to closing the seasons. A 5-day notice will not work for PLL fishermen because their trips are long.

Response: PLL gear is not the primary gear-type used to target sharks. Most sharks are landed on BLL or gillnet gear on trips that last several days. Fishermen deploying PLL gear generally target tunas and/or swordfish depending on the time of the year and location. Therefore, the Agency does not expect the five day notice upon filing in the Federal Register for closing the shark fishery to have adverse impacts on vessels deploying PLL gear. Historically, the shark fishery used to close with five days notice in the past; therefore, there is a precedent for this amount of time prior to taking action.

Comment 10: NMFS should consider a 3-day warning prior to closing seasons to prevent overharvests, consistent with the notice granted in the bluefin industry. This would better assure that quotas are not exceeded. If NMFS does not decrease the closure time to three days, and instead keeps five days, NMFS should adopt the trigger of 70-percent rather than 80-percent.

Response: The Agency prefers the five day closure period upon filing in the Federal Register to maximize the proportion of the quota that fishermen may harvest without exceeding the quota and to allow time for notifying fishermen of a closure. When the notice files in the Federal Register, NMFS would send out e-mail notices and

other outreach materials to notify the public of the fishery closure within 5 days. Approximately one day after filing, the notice would publish in the Federal Register, and then the fishery would officially close five days from the original filing date. NMFS believes closing the fishery for individual species or species complexes with five days notice upon filing in the Federal Register is adequate to prevent overharvests. Historically, shark trips have been 1-4 days. Therefore, five days notice upon filing in the Federal Register would be adequate for notifying fishermen of a closure because it would give fishermen enough time to complete trips that are already in progress. Significant reductions in retention limits and the fact that fishermen outside the research fishery cannot retain sandbar sharks would also reduce the potential for overharvests in the period between meeting the 80-percent threshold and when the fishery is actually closed five days later.

Comment 11: NMFS should predict how long the season should remain open to fill the quota based on past catch rates.

Response: In the past, seasons were set based on available quota, past catch rates, and other considerations. In the future, given the preferred suite of measures, determining the season length in advance of the season and not closing it when the quota is reached may result in significant overharvests and may not be the best strategy for ensuring that sandbar, dusky, and porbeagle shark populations rebuild. Overharvests in 2006 and 2007 may be indicative of past catch rates not being appropriate indicators of future catch rates because of the fact that in those years, catch rates were greater and the quota was smaller, leading to overharvests. In addition, significant changes in quotas, authorized species, and retention limits would further complicate establishing seasons in advance.

Based on recent stock assessments, this amendment reduces retention limits and modifies this list of authorized species that can be possessed by commercial vessels. This amendment reduces the number of LCS that can be possessed by directed permit holders from 4,000 lb dw/vessel/trip to 33 non-sandbar LCS/vessel/trip. Furthermore, it prohibits the retention of sandbar sharks outside the shark research fishery.

Comment 12: NMFS needs to analyze the length of trips that land sharks and base the time needed to notify the fishery on length of trip.

Response: Observer data indicate that most trips targeting sharks last between 1-4 days depending on the region, season, and amount of sharks that are landed. However, this duration corresponds to past retention limits that are being reduced substantially for directed permit holders. Five days was selected as a reasonable amount of time for fishermen to get word about a fishery closure and either finish a current trip without discarding sharks dead or incorporate a trip for another species while keeping the ability to land sharks incidentally prior to the closure. NMFS anticipates that the significant reduction in retention limits and the prohibition on retaining sandbar sharks outside the research fishery will result in most fishermen targeting other species and incidentally landing non-sandbar LCS.

Comment 13: NMFS needs to look at past data and see if an 80-percent threshold would be adequate to prevent overharvests based on how much quota is caught after the seasons.

Response: NMFS selected the 80-percent threshold for taking action with the five days notice upon filing in the Federal Register for season closure because it would ensure that the majority of the quota is harvested without exceeding the quota. Giving fishermen the opportunity to harvest most of the quota within a given season is important because NMFS is also preferring to only carry-forward underharvests for species that are not overfished, experiencing overfishing, or of unknown status. It is difficult to determine the amount of landings that occur before or after a season closure as these data may include sharks legally landed in state waters with seasons that may not be consistent with Federal seasons.

D.8 Regions

Comment 1: NMFS received several comments regarding regions. Comments in favor of maintaining three regions included: NMFS should assess the impacts of moving to one region; NMFS should describe the rationale for moving to one region; NMFS should not implement one region; having one region ignores the stock assessments and the temporal nature of the fishery; NMFS should implement separate permits, separate fishing zones, and separate quotas, so that fishermen in one zone are not penalized for a quota overage that occurs in another zone; the ASMFC requests a minimum of two management regions (Gulf of Mexico and Atlantic States) to ensure equitable and biologically sound geographic distribution of quotas; a one-region plan could reduce or eliminate any quota for Atlantic States if Gulf of Mexico states overharvest; the Gulf States do not have coordinated management and have overharvested in excess of 200-percent in recent years; under one management region, the ASMFC would have reduced or zero quotas for years subsequent to Gulf overages.

NMFS also received several comments opposed to maintaining the three regions, including: NMFS should either divide quota equally among regions or have one region since quotas are so low; Gulf of Mexico and South Atlantic stocks should be managed as one unit.

NMFS received numerous comments from Texas Parks and Wildlife, Gulf of Mexico Fishery Management Council, ASMFC, Mississippi Department of Marine Resources, and members of the general public in favor of maintaining more than one region. Reasons for maintaining more than one region, include: the best scientific evidence available indicates that the Gulf of Mexico and the South Atlantic stocks are separate; genetic evidence has shown separate stocks of some species between the Gulf and South Atlantic; shark management should account for separate stocks and separate the quota accordingly; we do not support one region because blacktip sharks are healthy in the Gulf of Mexico; because bycatch issues are unique to each region; does not support one region because blacktip sharks are healthy in that region, and; moving to one region ignores stock assessments and the temporal nature of the fishery, which was identified during the previous amendment.

Response: NMFS assessed the impacts of moving to one region in the Draft EIS for Amendment 2. The analyses indicated that the overall economic impacts would likely be negative in regions (*i.e.*, North Atlantic) that do not have sharks present in their waters year-round. The North Atlantic is expected to be disadvantaged as a result of implementing two regions. However, reduced quotas for non-sandbar LCS, prohibiting retention of sandbar sharks outside the research fishery, and reduced retention limits would result in significant negative economic impacts even if a distinct region for the North Atlantic were maintained. Ecological impacts of implementing one region were expected to be neutral.

The three regions were proposed to be combined to one region to simplify quota monitoring and to prevent derby-style fishing and potential overharvests that may occur as a result of attempting to allocate smaller quotas to regional and trimester seasons. Based on public comment and other considerations, NMFS would implement two regions, Gulf of Mexico and Atlantic, for management of the commercial shark fishery rather than one region as originally proposed. Maintaining two regions has several advantages, including: it adheres to the stock assessment for blacktip sharks which assessed this species separately in the Gulf of Mexico and Atlantic; it accounts for overharvests that occurred in the Gulf of Mexico and Atlantic in 2007 more equitably; it allows for unique quotas to be implemented in each region that account for different species composition in each region; and, maintains the flexibility to implement unique regulations in the Gulf of Mexico and Atlantic Ocean.

The 2006 LCS assessment assessed blacktip sharks as two distinct populations, the Gulf of Mexico and Atlantic. Unique results were found for each population with the Gulf of Mexico population healthy and the Atlantic stock unknown. The assessment recommended maintaining current harvest levels in both regions. The Agency prefers measures consistent with the stock assessment by maintaining two regions, Gulf of Mexico and Atlantic. Blacktip sharks were the only species that were assessed as distinct, regional populations.

At this time, NMFS does not issue unique permits based on geography within the Atlantic, Caribbean, and Gulf of Mexico. This type of permit was not considered in the draft Amendment 2 to the Consolidated HMS FMP.

Comment 2: NMFS should have one region because since NMFS went into regions, we have been going over the quota.

Response: There are several factors that may be the cause of recent overharvests. Recent overharvests have likely occurred because of increased fishing effort, increased availability of sharks when seasons are open, inconsistent reporting on behalf of the dealers, and the fact that previous years overharvests are taken off subsequent years' quotas resulting in smaller regional quotas. As quotas decrease and effort stays the same; the likelihood of overharvests increases.

Comment 3: NMFS should describe the original reasoning for establishing the three regions.

Response: The regions were implemented in Amendment 1 to the 1999 FMP in 2003 because of spatial differences in fishery practices, variable CPUE between regions, and to afford managers the flexibility to adjust regional quotas to reduce mortality of juvenile and pregnant female sharks.

Comment 4: The Agency should create a separate region for the Caribbean.

Response: The Caribbean is now managed as part of the South Atlantic region. This amendment would include the Caribbean in the Atlantic region. Permit data indicate that there are not any commercial shark fishing permits and only one shark dealer permit in the Caribbean region. In addition, NMFS is in the process of initiating rulemaking to address some of the unique aspects of Caribbean fisheries for HMS.

Comment 5: NMFS should change the regions so that the Florida Keys are entirely in the South Atlantic or entirely in the Gulf of Mexico. The State of Florida recommends that the existing regions be maintained, however, both Gulf and Atlantic coasts of Florida should be kept in the same region to facilitate improved management and enforcement.

Response: NMFS implemented separate regions for the Gulf of Mexico and South Atlantic in Amendment 1 to the 1999 FMP. The existing boundary between the regions was adopted because it is consistent with the boundary defined by both the Gulf of Mexico and South Atlantic Fishery Management Councils. Creating new boundaries that are not consistent with the jurisdictions defined by the relevant Councils or Marine Fisheries Commissions would likely introduce confusion and lead to difficulties with quota monitoring and enforcement.

D.9 Recreational Measures

Comment 1: NMFS should maintain the same standards for recreational and commercial fisheries. Since the commercial industry reports many unidentified or unclassified sharks, the commercial industry should be regulated based on misidentification as well.

Response: The majority of sharks landed commercially are reported as unclassified by shark dealers, not fishermen. The Agency has implemented shark identification workshops for shark dealers which are expected to provide shark dealers with the knowledge and skills to properly identify the sharks that they purchase. Recreational fishermen generally do not see sharks as often as commercial fishermen targeting sharks. Thus, commercial fishermen may be more adept at shark identification.

Comment 2: The preferred alternative would set a bad precedent in allowing a fishery that caused the decline in shark populations to continue on a limited basis, while the public cannot fish for the same shark species. The commercial fishermen should be allowed to catch the same shark species as the recreational fishermen. The ASMFC requests allowing recreational possession/take of all species that may be harvested by commercial fishermen to keep the shark fishery equitable to all sectors and help establish identical species groups.

Response: The Agency prefers measures that would allow recreational permit holders to possess all non-ridgeback sharks and tiger sharks. These species of sharks have external characteristics that are easy for recreational anglers to properly identify. NMFS proposed to add blacktip, spinners, bull, and finetooth sharks to the list of prohibited shark species in the draft Amendment 2 to the Consolidated HMS FMP. However, based on public comment, NMFS decided to allow recreational anglers to land these sharks. NMFS would allow recreational anglers to land these species because of extensive public comment that was received in favor of allowing recreational anglers to land these species. NMFS would not authorize recreational anglers to land sandbar sharks and silky sharks because recreational anglers may confuse these species with dusky sharks which is on the list of prohibited shark species. NMFS would only allow participants in the shark research fishery to land sandbar sharks commercially, thus, precluding the vast majority of commercial fishermen from landing sandbar sharks.

Silky sharks would be authorized for landing in commercial fisheries because there is a higher likelihood that these sharks may be discarded dead than if they were landed in recreational fisheries. Moreover, commercial fishermen are more adept at distinguishing between silky sharks and sandbar or dusky sharks. Prohibiting silky sharks in commercial fisheries would result in more significant economic consequences than prohibiting them in recreational fisheries because commercial fishermen are allowed to sell the fins and flesh of sharks that are caught within the commercial regulations. There is not a significant targeted fishery among recreational or charter/headboat anglers for spinner sharks, therefore, economic impacts would be less severe among this group of stakeholders.

Comment 3: The recreational and commercial sectors contribute nearly equivalently towards reductions in mortality of sharks, and reductions in mortality are absolutely necessary.

Response: The Agency is implementing measures consistent with recent stock assessments to prevent overfishing and/or to rebuild stocks of porbeagle, dusky, and sandbar sharks. Concurrently, landings of blacktip sharks in the Gulf of Mexico and Atlantic should not be increased. Both commercial and recreational shark landings are included in stock assessments. While commercial fisheries generally comprise the majority of shark landings, recreational landings are also a significant component of overall shark mortality. Additional measures are necessary to reduce fishing mortality on several shark species. Modifications to quotas, authorized species, and retention limits are expected to prevent overfishing and to rebuild overfished stocks. For example, sandbar sharks would only be landed by a small number of commercial participants in the shark research fishery subject to a commercial quota that represents an 80-percent reduction in landings of sandbar sharks compared to previous years. Recreational fishermen would not be able to retain sandbar sharks due to their overfished status and the potential for confusion with prohibited dusky sharks.

Comment 4: NMFS should consider additional alternatives for the recreational industry. The alternative suites contain only either status quo or close all the recreational fishery.

Response: The recreational measures include more measures than status quo and closing the fishery. Alternative suites 2 through 4 in the draft Amendment 2 to the Consolidated HMS FMP would modify the authorized shark species for recreational fishermen to those that can be positively identified. These alternatives would be modified in the final Amendment 2 to the Consolidated HMS FMP to include all non-ridgeback and tiger sharks as authorized species in recreational shark fisheries.

Comment 5: NMFS should describe the data or analysis used to justify the proposed authorized species for recreational fisheries. There is no precedent for “easily-identifiable.” The Agency needs to make an effort to educate anglers before assuming they cannot identify what they are catching. The State of Georgia commented that NMFS should only allow sharks without an interdorsal ridge to be landed, that would improve identification and reduce confusion. The State of Florida indicated that sandbar and dusky sharks can easily be differentiated from many other shark species by the presence of an interdorsal ridge.

Response: NMFS only included shark species that are readily identifiable by recreational participants that may not interact with a large number of sharks and therefore may not be able to accurately identify sharks. The Agency specifically requested public comment on the proposed list to be authorized for recreational participants and has modified the final list as a result. The final measures would allow any non-ridgeback sharks and tiger sharks to be landed by recreational anglers. The absence of an interdorsal ridge and/or the distinctive black vertical stripes on tiger sharks should allow recreational anglers to determine if a shark may be possessed or not. The Agency intends to disseminate information for recreational permit holders on HMS regulations and external characteristics for positive identification of authorized shark species.

Comment 6: The recreational fishery should be observed.

Response: Recreational permit holders can request to take an observer onboard to monitor fishing activities, however, they are not required to carry observers. Observers are placed on commercial fishing vessels as a requirement of the biological opinion for the shark fishery. To date, the biological opinion for the shark fishery has not required observer coverage in the recreational fishery. In addition, recreational fishing vessels are not required to obtain a U.S. Coast Guard safety inspection, which is a requirement for placing observers on commercial vessels to ensure that the vessels has all the required safety equipment. In addition, the bag limits are quite restrictive in the recreational fishery (1 shark per vessel per day over 54 inches) and therefore it is not likely that the majority of fishing mortality is occurring in the recreational shark fishery.

Comment 7: NMFS received several comments regarding outreach efforts on shark identification to the recreational sector, including: NMFS should release an identification guide similar to the Rhode Island Sea Grant guide; recreational fishermen care about positive identification; NMFS should send all permit holders the \$20 shark identification book instead of shutting down the fishery; NMFS should explore identification workshops for recreational fishermen; the Agency needs to find better ways to educate the public to ensure positive identification; NMFS should use educational tools

to improve identification; and, recreational fishermen may confuse porbeagle sharks with shortfin makos.

Response: In 2003, NMFS released a guide to Sharks, Tunas, and Billfishes of the U.S. Atlantic and Gulf of Mexico in conjunction with Rhode Island Sea Grant. While the guide is currently out of print, additional copies are being printed and there are additional materials currently available at: <http://seagrant.gso.uri.edu/bookstore/index.html>.

The Agency is working on additional outreach materials to improve identification and understanding of regulations among recreational anglers. These outreach materials would be either free or available at a low cost to ensure that all permit holders have access to them. The Agency has recently implemented shark identification workshops for shark dealers and other interested members of the public. While not mandatory for recreational anglers, participants in any HMS sector or the general public may attend. These workshops provide anglers, dealers, and commercial fishermen with the ability to properly identify carcasses.

Comment 8: NMFS received several comments, including comments from the State of Florida, the State of Mississippi, the Gulf of Mexico Fishery Management Council, Texas Parks and Wildlife Department, South Carolina Department of Natural Resources, and the ASMFC regarding the shark species that should be included on the list of recreationally authorized shark species. Comments included: spinner, silky, bull, and blacktip sharks should be included in the list of species authorized for recreational anglers because fishers are capable of accurately identifying shark species; common thresher sharks should stay on the list of species authorized for recreational anglers; NMFS should not propose restricting recreational anglers from keeping blacktip sharks in the Gulf of Mexico if the stock is not overfished or experiencing overfishing; spinners are not endangered, nor are they depleted; the status of spinner or bull sharks has not been assessed, therefore, prohibiting the capture of blacktip and bull sharks would be an overly risk-averse strategy considering that the status of blacktip sharks (at least in the Gulf of Mexico) is satisfactory; identification is only a problem for species that cannot be identified externally; eliminating the retention of a healthy species of sharks, based on the assumption that they might be misidentified is subjective and is definitely not sound fishery management practice; NMFS is mandated under the Magnuson Stevens Act (NS 1) to strive for optimum sustainable yield and blacktip status in the Gulf of Mexico are healthy; NMFS' stated reason is concern over angler misidentification with sandbar and dusky sharks, however, these species may be readily identified by their interdorsal ridges; the list is acceptable, except for oceanic whitetip and hammerhead sharks. Do not allow the recreational catch of these two species as scientific studies show they are in decline; allowing the recreational harvest of blacktip and spinner sharks would therefore have no negative impact on sandbar and dusky sharks; silky sharks can be confused with dusky sharks and should remain off the list that recreational anglers may land; NMFS should not prohibit recreational anglers from landing bull, blacktip, bull, spinner, and finetooth sharks because these species represent 37-percent of recreational shark landings off the State of Florida.

Response: Final measures would allow recreational anglers to possess all non-ridgeback and tiger sharks, including blacktip sharks. The presence/absence of an interdorsal ridge, coupled with other morphological characteristics and outreach materials on shark identification for recreational anglers are likely to reduce the incidence of misidentification in this fishery. Common threshers would also continue to be authorized for landing in recreational shark fisheries as these were not proposed to be prohibited for recreational anglers. The Agency had originally proposed that blacktip and spinner sharks not be authorized in recreational fisheries because the morphological differences between the two sharks are not obvious to anglers who are unfamiliar with sharks and NMFS wanted to ensure that recreational anglers were only landing sharks that could be positively identified. Based on extensive public comment in support of being able to land blacktip, spinner, and bull sharks, the preferred alternative suite would allow these sharks to be landed. Further, the Agency will enhance outreach efforts to ensure that recreational shark fishermen are positively identifying the sharks they interact with.

Comment 9: NMFS should address the fact that recreational anglers in Delaware, Maryland, and New Jersey are catching lots of pregnant thresher sharks during certain times of the year.

Response: NMFS is concerned about recreational anglers catching pregnant female thresher sharks. Recreational fisheries do not have closed seasons like commercial fisheries; therefore, pregnant females may be caught and possessed by recreational anglers. However, a minimum size limit of 54" fork-length and a bag limit of one shark (except bonnethead and Atlantic sharpnose) per vessel per trip should minimize the potential for deleterious impacts to populations of common thresher sharks. Furthermore, this species may be afforded additional protection by shark tournaments that limit the sharks that are actually landed to those that are actually eligible to win a prize category.

Comment 10: The Agency received a comment suggesting that hammerheads may need to be prohibited for recreational anglers because the IUCN considers them threatened and it is not easy to distinguish between scalloped and great hammerhead sharks.

Response: The Agency is not proposing management measures specific to scalloped or great hammerhead sharks in recreational fisheries at this time. NMFS has not yet reviewed stock assessments on these species. A stock assessment has been completed for hammerhead sharks, however, the assessment has not undergone extensive peer-review which is necessary prior to the Agency making management decisions based on the assessment. The IUCN determined that the scalloped hammerhead is "lower risk, near threatened" with an unknown population trend in 1994. In 2001, the IUCN listed great hammerhead sharks as "endangered" with a decreasing population trend. The recreational bag limit (1 vessel/day) and minimum size (> 54" fork length) should preclude overfishing of the scalloped hammerhead shark species. The Agency intends to improve outreach materials available so that recreational anglers would have the tools necessary to distinguish between scalloped and great hammerheads.

Comment 11: The Agency should consider the impacts of recreational fishing for sharks and its implications on populations. Specific comments received include: shark tournaments since the 1980s are responsible for a 50-percent reduction in dusky sharks and a 35-percent reduction in sandbar sharks; the stock assessment does not say that recreational anglers have a significant impact on the shark stocks; the recreational angling public has a virtually imperceptible impact on LCS because recreational anglers practice catch and release and have very conservative size limitations.

Response: The Agency is aware of the impacts of recreational fisheries and their impacts on shark populations. Recreational data have been used in past stock assessments for both sandbar and dusky sharks. Thus, the impact of recreational mortality on shark stocks has been included in these stock assessments. NMFS has implemented a size and bag limit for recreational fishermen to limit effort and protect sharks that have not reached sexual maturity. The final Amendment 2 to the Consolidated HMS FMP provides recreational landings by species.

Comment 12: NMFS should increase enforcement of recreational regulations because participants are not adhering to the 54 inch minimum size for sharks.

Response: The Agency intends to take steps to improve outreach to recreational shark anglers to ensure that the public is aware of all the regulations in place for recreational shark fisheries.

Comment 13: NMFS should not allow shark tournaments that give monetary prizes. The impacts of such tournaments are unknown and public perception of them is poor.

Response: HMS tournament participants are required to possess the necessary HMS permits, to register their tournaments, submit data if selected, and abide by all HMS and tournament regulations for sharks. The shark tournaments are subject to the recreational shark bag and size limits which are quite restrictive in the recreational fishery (1 shark per vessel per day over 54 inches) and therefore it is not likely that the majority of fishing mortality is occurring in shark tournaments. Specific measures concerning tournaments were not proposed, or analyzed, in the draft Amendment 2 to the Consolidated HMS FMP.

Comment 14: NMFS should not propose that recreational fishermen cannot land sandbars and then account for recreational landings by removing the recreational landings (27 mt dw) in establishing the commercial quota for sandbar sharks.

Response: Accounting for the recreational landings (27 mt dw) between 2003-2005 is necessary to ensure rebuilding of sandbar sharks and that all fishing mortality is within the TAC. Sandbar sharks are likely to be landed in recreational fisheries outside of NMFS jurisdiction (*i.e.*, state waters), illegally, or may die as a result of post-release mortality. If the Agency did not account for recreational mortality of sandbar sharks efforts to prevent overfishing and rebuild sandbar sharks would be compromised.

Comment 15: Why were the effects of Katrina to the Texas recreational industry not analyzed?

Response: Consistent with NS1 of the Magnuson-Stevens Act, NMFS is required to implement management measures to rebuild overfished shark species and prevent overfishing. The impacts to the recreational shark fishing industry as a result of Katrina were not specifically analyzed in this rulemaking. Rather, the impacts of the proposed measures that would affect the recreational shark fishing industry in states impacted by Hurricane Katrina were evaluated.

Comment 16: NMFS should require that recreational anglers only catch and release and also require recreational anglers to report any and all interactions with protected species.

Response: Alternative suite 5 proposed prohibiting the possession of sharks in both commercial and recreational fisheries, but it was not the preferred alternative. This alternative was not preferred because of the adverse economic impacts that would be incurred by these fisheries. The stock status of many shark species does not warrant a requirement to only catch and release all shark species landed recreationally. The bag limit and minimum size requirements are sufficient to conserve shark stocks, and the Agency does not believe a prohibition on landing all sharks in recreational fisheries is warranted at this time.

Comment 17: A typo was made regarding allowable recreational species. On the HMS website copy of the proposed Amendment, the spinner shark was included on the recreational list. On a powerpoint presentation prepared for the public hearings, which was formerly posted on the HMS website, the spinner shark was not included on the recreational list. NMFS should update the draft document on the HMS website so that the commenting public would have access to the proper information necessary to adequately prepare their comments.

Response: The typographical errors in the draft Amendment 2 to the Consolidated HMS FMP have been addressed. An errata sheet describing these errors was posted to the HMS website on November 19, 2007, prior to the end of the public comment period and is available at:
http://www.nmfs.noaa.gov/sfa/hms/sharks/Amendment%202/Errata_Sheet_for_DEIS.pdf

Comment 18: NMFS should consider the cumulative impacts on CHB operators who also fish for sharks in light of measures that have been imposed on this industry for other fisheries such as snapper. Snapper business is down 75-percent and proposed measures for the shark recreational fishery are the nail in the coffin for CHB; and, NMFS is violating NEPA by limiting recreational alternatives and through limited cumulative impact analysis such as that caused by red snapper regulations.

Response: NEPA requires all Federal agencies to consider and analyze a range of alternatives to achieve the stated objective and analyze cumulative impacts of proposed actions. NMFS considered the cumulative impacts by analyzing permits that participants

held in other fisheries. Negative economic impacts that may have been realized by the CHB industry targeting sharks would be mitigated by the final measures included in Amendment 2 to the Consolidated HMS FMP. Based on public comment and other factors, the Agency is modifying the shark species that can be retained by recreational anglers to include all non-ridgeback sharks and tiger sharks. This modification would allow CHB operators to continue to retain blacktip, spinner, finetooth, and bull sharks which had originally been proposed to be prohibited for recreational anglers due to concerns about anglers' ability to positively identify these species.

Comment 19: Party charter operators have to submit Vessel Trip Reports (VTRs) for every trip. NMFS should look into those to get a handle on recreational catches.

Response: VTR data were considered for the final rule, however, these data showed only four porbeagle sharks landed by party headboats. MRFSS and LPS are the only databases that NMFS has to track recreational landings. However, for some species, like porbeagle sharks, the timing of these programs do not necessarily capture when porbeagle sharks are caught by recreational fishermen in New England. As such, NMFS is considering ways to improve its recreational landings data collection. The Agency is interested in gathering more shark landings data from tournaments with prize categories for sharks, especially porbeagle sharks.

Comment 21: NMFS received numerous comments, including one from the South Carolina Department of Natural Resources, stating that the Agency should increase the retention limit for Atlantic sharpnose per vessel in the for-hire fishery. Recreational fishermen cannot avoid sharpnose sharks and the recent stock assessment declared that they were not overfished or subject to overfishing.

Response: Modifying the retention limits for Atlantic sharpnose was not considered in this amendment. Measures concerning Atlantic sharpnose sharks and other small coastal sharks (SCS) may be included in a future amendment to the Consolidated HMS FMP that is necessary as a result of recent (2007) stock assessments for SCS.

D.10 Stock Assessment and Fishery Evaluation (SAFE) Report and Stock Assessment Frequency

Comment 1: NMFS should implement the preferred alternative 9 for SAFE report frequency, which would allow NMFS to publish a SAFE report by the fall of each calendar year.

Response: NMFS prefers alternative 9, which would modify the existing regulations by requiring the publication of a SAFE report in the fall of each year. This would allow NMFS more flexibility to balance other responsibilities throughout the calendar year, as necessary, and would give NMFS the ability to include data for the SAFE report that is typically collected at the beginning of each calendar year.

Comment 2: Within the annual SAFE report, NMFS needs to correctly identify the overfished and overfishing status of every managed shark species by species, rather than by complex.

Response: The SAFE report follows the guidelines specified in NS2 and is used by NMFS to develop and evaluate regulatory adjustments under the framework procedure or the FMP amendment process. Within each SAFE report, NMFS lists the status determination of each stock. If the stock is managed within a species complex, then NMFS would report the status of the complex. For sharks, NMFS does not have the necessary information to conduct separate stock assessments for each species. Therefore, NMFS cannot make species-specific stock status determinations for every species of shark that is commercially harvested. Therefore, those species are managed within a species complex. NMFS is moving towards more species-specific management as available data allows, as is the case with sandbar sharks, which would be managed separately from the LCS complex based on measures in the final Amendment 2 to the Consolidated HMS FMP.

Comment 3: NMFS should implement the preferred alternative 7 for shark stock assessments, which would allow NMFS to conduct shark stock assessments at least once every five years.

Response: Because of the time necessary to modify management measures consistent with stock assessments, NMFS would implement the preferred alternative 7 and have shark stock assessments conducted at least once every five years. This would provide sufficient time for existing or forthcoming management measures to take effect (*i.e.*, a few years) prior to the next stock assessment.

Comment 4: NMFS received several comments in favor of the status quo for timing of stock assessments, including: NMFS should consider keeping the status quo for the timing of stock assessment for sharks; we are opposed to having an assessment at least once every five years; five years is too long to wait for an assessment; it is critical that stock assessments be regular and robust; NMFS should implement alternative 6, the status quo for the timing of shark stock assessments, with a mandate of stock assessments no less frequently than every 3 years; and, stock assessments should occur at least every 2 to 3 years without any further delays.

Response: Because of the time necessary to modify management measures consistent with stock assessments, NMFS is finalizing measures that would increase the amount of time between stock assessments to allow existing or forthcoming measures to be in place and have an effect on the population before the next assessment takes place. In 2003, NMFS adopted the SEDAR process for completing shark stock assessments at the request of industry, environmentalists, and academics. This process increases the time necessary to complete a stock assessment because it entails three workshops where data are reviewed, stock assessment models are run, and results are reviewed by an outside panel. Since this process alone may take over a year to complete, conducting assessments every 2 to 3 years is not practical. Allowing stock assessments to be conducted at least once every five years would allow research suggested by the last assessment to be completed before the next assessment is done, thus providing the necessary data for future assessments. It would also allow management measures, which need to be in place for several years to have an effect, before a new assessment is done. For instance, the last stock assessment, which was completed in 2006, included data

through 2004. NMFS is currently developing management based on that assessment, and new management measures would be in place by July 2008. If the next stock assessment is conducted in 2009 (3 years from 2006), and includes data up through 2007 or 2008, the new management measures would not have had time to take effect as they were not in place for the time series of data used for the next assessment. Increasing the frequency to at least once every five years would result in the next assessment occurring in 2011, which would include data up through 2010 and include 2.5 years of data collected under the new management measures.

Comment 5: The Georgia Coastal Resources Division believes that while conducting assessments every 2-3 years is too short for an accurate assessment, conducting stock assessments every five years is too frequent for the rebuilding timeframes necessary for the concerned species and to evaluate the effects of management.

Response: Alternative 7 would change the current process outlined in the 1999 FMP by requiring stock assessments for sharks at least every five years instead of every two to three years. Stock assessments could occur more frequently, however, they must be conducted at least every five years. While stock assessments at least every five years may be too frequent given the life history of sharks, NMFS' policies require that an assessment be no more than five years old. Therefore, NMFS proposes to conduct stock assessments at least once every five years.

D.11 Research Fishery/Preferred Alternative

Comment 1: NMFS should not finalize the proposed preferred alternative suite 4. The sandbar shark quota should be spread over 40–50 vessels making 1 – 2 trips annually rather than 5-10 vessels making more trips.

Response: The preferred alternative suite strikes a balance between positive ecological impacts that must be achieved to rebuild and stop overfishing on depleted stocks while minimizing the severity of negative economic impacts that would occur as a result of these measures. By allowing a limited number of historical participants to continue to harvest sharks, the Agency ensures that data for stock assessments and life history samples would continue to be collected. This would also allow a small pool of individuals to continue to collect revenues from sharks as they have in the past. Increasing the number of vessels included in the shark research fishery would simply provide a much smaller benefit for a larger pool of individuals. Furthermore, the Agency intends to address vital research concerns via the shark research fishery. Having fewer vessels involved in the research fishery would ensure less variation among vessels and would also maintain more consistent sampling protocols. Fewer vessels in the research fishery would also allow each vessel to make more sets targeting sandbar sharks throughout the year and within each region rather than a larger number of vessels only making one or two trips in a particular region/season. The selection process would take place each year in an attempt to maximize potential participants.

Comment 2: NMFS received several comments on research fishery vessel selection. These comments included: the Agency should select vessels based on a fisherman's income from the shark industry; NMFS should consider if a fisherman has helped with research in the past and consider whether or not the researchers had a positive experience; NMFS should consider any past violations, and if a vessel is conducive to research (*i.e.*, enough deck space); captains and crew should have an understanding of why the research is being done, an understanding of the costs associated with the research, the ability to fish in multiple regions, the ability to carry observers; past participation in the observer program and shark fishery should be considered; NMFS should create a point system based on criteria for selection of vessels and if there are more than 5-10 vessels, then a lottery should be used; NMFS should administer the research fishery much like they do the EFP program; the shark research fishery should only include directed shark permit holders; NMFS should increase the number of vessels in the research fishery and decrease the amount of sandbars each vessel may land; observer coverage should still happen within the research fishery; the Agency needs to provide clarification as to how vessels will be selected to participate in the shark research fishery included in the preferred alternative, and; who will pick the fishermen for the research fishery?

Response: Applications and permits for the shark research fishery would be administered through the HMS Exempted Fishing Permit program. The HMS Management Division would coordinate with Agency scientists to determine research objectives. NMFS would publish an annual notice in the Federal Register that describes the expected research objectives, number of vessels needed, selection criteria, and the application deadline. Requested information could include, but is not limited to, name and address, permit information, number of expected trips to collect sharks, regions where fishing activities would occur, vessels employed, and gear used. NMFS would review all complete applications and rank vessels according to the ability of the vessel to meet research objectives, fish in the specified regions and seasons, carry a NMFS approved observer, and meet other criteria as published in the Federal Register notice. Establishing a point system or a lottery for selection of vessels may be considered as a means of selecting among qualified vessels interested in participating in a shark research fishery. NMFS would include the appropriate types of permit holders in the shark research fishery as determined by the research objectives on an annual basis.

Comment 3: NMFS should allow vessels participating in the research fishery and collecting data to make the most of what they catch.

Response: Non-prohibited sharks landed in the shark research fishery would be sold by fishermen. NMFS-approved observers onboard vessels in the shark research fishery would be authorized to collect any and all samples from any specimens retained during fishing activities to fulfill research goals.

Comment 4: Quota for the research fishery should be equally distributed geographically.

Response: The Agency would consider the geographic distribution of vessels selected to participate in the shark research fishery to reflect traditional participation by vessels targeting sharks and to ensure that data are maintained for future stock assessments. Further, equal geographic distribution would allocate economic benefits to all regions affected by measures in the final rule and ensure that samples are collected from sandbar and other species of sharks throughout their geographic range.

Comment 5: NMFS should clearly state how the quota for sandbar sharks will be calculated.

Response: The sandbar shark quota was determined by the TAC recommended by the sandbar shark stock assessment for the species to rebuild by 2070. The available quota for commercial shark fishermen participating in the shark research fishery (116.6 mt dw) was determined based on the TAC while considering other sources of sandbar shark mortality in recreational fisheries and dead discards that occur in other fisheries. This quota would be reduced to 87.9 mt dw through the end of 2012. Additional detail on these calculations may be found in Appendix A and C of the final Amendment 2 to the Consolidated HMS FMP.

Comment 6: Is NMFS going to provide flexibility regarding when and where vessels fish?

Response: Research vessels would have some flexibility with regard to timing of trips subject to the objectives and needs of the research fishery. Vessels selected for, and fishing under, the auspices of the shark research permit would be required to take a NMFS-approved observer on all trips, therefore, observer availability may limit timing of individual trips by vessels. Furthermore, NMFS intends for the quota available for the shark research fishery to last throughout the year so that samples are collected from vessels fishing in all regions and seasons. The number of available trips targeting sharks would be dependant on retention limits, success of other vessels targeting sharks, available quota, and other considerations.

Comment 7: NMFS received several comments on research fishery goals and science, including: NMFS should describe its data and research needs; a research plan needs to be developed; a research plan should be devised first before the vessels/fishermen are selected; and the design of the sandbar-oriented research fishery requires scientific input and oversight in order to fulfill a research mission.

Response: The research goals and objectives are being developed with Agency scientists. Research objectives may vary each year, depending on scientific needs. Several research needs were identified by the peer-reviewers during the LCS stock assessment in 2006. Available data on LCS are also presented in the data workshop summary report which is located on the SEDAR website: (http://www.sefsc.noaa.gov/sedar/Sedar_Workshops.jsp?WorkshopNum=11). The objectives would be published and made available to the public in conjunction with the Federal Register notice that solicits applications from fishermen interested in participating in the shark research fishery. Research topics may include, but are not

limited to: target and bycatch rates using circle and J-hooks with unique bait combinations; sandbar age at first maturity and maturity ogive; reducing bycatch rates of protected resources and prohibited sharks; and, life history of coastal sharks.

Comment 8: NMFS received several comments on which permit holders should be able to participate in the shark research fishery, including: the research fishery should include charter/headboat permit holders and NMFS should not allow incidental permit holders to apply for the research fishery.

Response: The research fishery may include any HMS permit holder subject to the research objectives for a given year. These objectives and the types of vessels that would be considered would be published annually in advance of research activities so that fishermen with the appropriate permits may apply.

Some of the objectives for the research fishery are to continue to collect sandbar shark landings to ensure consistent time-series data for future stock assessments and to answer specific research questions concerning shark life history and mechanisms to reduce bycatch, among others. Incidental permit holders have contributed to limited landings of sandbar sharks in the past; therefore, some landings data for sandbar sharks from incidental permit holders in the shark research fishery may be warranted.

Comment 9: NMFS should not implement a research fishery because it will take quota away from U.S. fishermen.

Response: Quota would not be taken away from U.S. fishermen as a result of the shark research fishery, however, a reduced quota consistent with the recommended TAC would be implemented in this final rulemaking. All of the available sandbar shark quota would be harvested in the shark research fishery. Interested U.S. fishermen would have the opportunity to apply for, and participate in this fishery, which would allow fishermen to harvest and sell sandbar sharks.

Comment 10: The research fishery should be limited in its first year (maybe 25-percent of the sandbar quota) so NMFS could figure out how the research fishery process would work. For the rest of the fishery, fishermen could then land some sandbars.

Response: There is a limited amount of sandbar shark quota available compared to previous years because the Agency is implementing a TAC and commercial sandbar quota that are consistent with the 2005/2006 sandbar shark stock assessment. Overharvests of sandbar sharks from 2006 and 2007 must also be accounted for resulting in an adjusted commercial sandbar quota of 87.9 mt dw between 2008-2012. Allocating a small portion of this reduced quota to fishermen outside the shark research fishery would reduce the quota available for the research fishery, limiting the Agency's ability to achieve research objectives.

Comment 11: There is an inconsistency in alternative suite 4 worth noting. In regard to the number of vessels that would be allowed to participate in the research fishery. In Chapter 2, it was stated "the Agency is not certain regarding the number of vessels that may participate in the shark research fishery." (pg 2-8), yet in Chapter 4 (pg

4-77), it states “NMFS scientists and managers would select a few vessels (*i.e.*, 5-10) each year to conduct the prescribed research.”

Response: The Agency is not certain on the exact number of vessels that would be selected for the research fishery. The number of vessels selected depends on research objectives, the number of vessels that qualify to participate in the shark research fishery, and quota available. Inclusion of five to ten vessels in the draft documents associated with the proposed rule provided the public with an estimate of how many vessels may be needed under historical retention limits and proposed commercial quotas for the shark research fishery.

Comment 12: The Georgia Department of Coastal Resources supports alternative suite 4 but thinks that unclassified sharks should be grouped as ridgeback and non-ridgeback.

Response: The Agency proposed counting unclassified sharks as sandbar sharks in the draft Amendment 2 to the Consolidated HMS FMP to provide an incentive for shark dealers to properly identify the sharks they purchase to the species level. Since the commercial quota for sandbar sharks is the lowest, the Agency had proposed a precautionary approach to ensure that overfishing of sandbar sharks did not occur by providing an incentive for shark dealers to properly identify what they purchase and not list sharks as unclassified. However, NMFS is concerned that too many unclassified sharks being counted as sandbar sharks may fill the sandbar quota and close the shark research fishery prematurely. NMFS would use observer reports from outside the research fishery to determine species/complex (*i.e.*, non-sandbar LCS, SCS, pelagic sharks, sandbar sharks) from which the unclassified sharks should be deducted. This would result in unclassified sharks being counted from a more appropriate assemblage than assuming all unclassified sharks are sandbar sharks and may result in the shark research fishery staying open for a longer period of time.

Comment 13: NMFS should implement alternative suite 4 because it will greatly improve data collection prior to the next SEDAR for LCS. It will help re-analyze the life history of sandbar sharks, especially.

Response: NMFS prefers alternative suite 4 because it implements a shark research fishery that would provide a limited number of fishermen with the economic incentive to collect valuable scientific data on sharks for the Agency. The Agency would attain information from this research that would help future stock assessments fill in some of the data gaps that previous stock assessments have identified.

Comment 14: Alternative suite 4 allows fishing to continue on shark species without having adequate information to responsibly do so. NMFS should limit shark fishing activities until the status of remaining (all sharks but sandbar, dusky, porbeagle) sharks has been determined.

Response: NMFS is implementing measures that would reduce fishing mortality of sharks significantly while collecting data for future stock assessments. Without this

data, NMFS' ability to conduct future stock assessments would be hampered. Currently, the Agency and other collaborating fishery management entities have completed stock assessments for all the shark species that have ample data available.

Comment 16: NMFS should not implement a lethal sandbar research fishery. NMFS should implement a tag and release research fishery.

Response: It is not possible to gather all the necessary samples, including reproductive organs and vertebrae, without some sandbar shark mortality. Commercial fishermen also need some incentive to participate in the shark research fishery as there is no other compensation that would be provided, therefore, the proposed research fishery would allow data collection and the sale of animals collected to reduce dead discards and waste.

Comment 17: NMFS should address bycatch in alternative suite 4. This alternative suite is not adequate to ensure the recovery of depleted sandbar and dusky sharks.

Response: Measures implemented in alternative suite 4 would ensure that fishing effort targeting sandbar sharks and non-sandbar LCS is reduced, consistent with stock assessment recommendations. This would result in reductions to bycatch and target catch. Landings of sandbar sharks are expected to decrease by 80-percent. Discards of dusky sharks are expected to decrease by 74-percent. Modifications to retention limits, quotas, and authorized species in commercial and recreational fisheries are expected to decrease bycatch and landings of target species to a level that is consistent with recommendations of the 2005/2006 LCS stock assessment and provides a mechanism for rebuilding of sandbar and dusky sharks.

Comment 18: Alternative suite 4 could shift effort to SCS and pelagics.

Response: Fishing effort directed at SCS and pelagics may increase, however, these quotas are traditionally not fully utilized and are not being modified at this time with the exception of porbeagle sharks. The commercial quota for porbeagle sharks is being established based on historical commercial landings to prevent fishing effort from increasing while the stock is being rebuilt. Should fishing effort increase to the extent that the best available science indicates overfishing is occurring or stocks are overfished or approaching an overfished condition, NMFS would take additional action.

Comment 19: The management measures in alternative suite 4 will not adequately prevent the quota overages that have historically occurred within this fishery.

Response: Maintaining 100-percent observer coverage in the shark research fishery would enable the Agency to monitor landings in the shark research fishery in near real-time, reducing the likelihood of overharvests. Reducing retention limits outside the research fishery would reduce the number of non-sandbar LCS individual vessels may land each trip, which should prevent directed permit holders from targeting non-sandbar LCS. Instead, directed permit holders are anticipated to incidentally land non-sandbar LCS while they target other species. This, coupled with the fact that sandbar shark

retention would be prohibited outside the research fishery may reduce the number of overall trips landing sharks. Lastly, ensuring that shark dealer reports are received by the Agency within ten days of the 15th or 1st of every month would provide the Agency with the ability to provide more frequent landings updates and close the fishery if necessary to avoid overharvests.

D.12 Comments on Other Alternative Suites and Management Measures

Comment 1: NMFS received several comments on the status quo alternative (alternative suite 1), including: NMFS should maintain the status quo; and NMFS should implement different measures because the status quo clearly is not working and should be abandoned.

Response: NMFS chose not to select the status quo alternative as the preferred alternative because it does not end overfishing or implement rebuilding plans for overfished stocks as required under Magnuson-Stevens Act. NMFS is preferring alternative suite 4 with minor modifications based on further analysis and public comment because it implements quotas and retention limits necessary to rebuild and end overfishing of several shark species. The preferred alternative suite 4 maximizes scientific data collection by implementing a limited research fishery for sandbar sharks with 100-percent observer coverage. It also mitigates some of the significant economic impacts that are necessary and expected under all alternative suites to reduce fishing mortality as prescribed by recent stock assessments. Thus, alternative suite 4 strikes a balance between positive ecological impacts that must be achieved to rebuild and end overfishing on depleted stocks while minimizing the negative economic impacts that would occur as a result of these measures.

Comment 2: NMFS received several comments on alternative suite 2, including: NMFS should not implement alternative suite 2 because it does not allow ILAP (Incidental Limited Access Permit) holders to land sandbar sharks; NMFS should implement alternative suite 2 with the caveats that porbeagle sharks be authorized for recreational fishermen and sandbars should be allowed on PLL gear; alternative suite 2 is more protective of the species than preferred Alternative 4.

Response: The Agency did not prefer alternative suite 2 because incidental permit holders would not be able to land any sharks, which could result in excessive dead discards. There would also be an increased reporting burden for shark dealers, which could result in negative economic impacts for shark dealers.

Under alternative suite 2, porbeagle sharks would be added to the prohibited list for commercial and recreational fishing because porbeagle sharks were determined to be overfished based on the 2005 Canadian stock assessment. In addition, porbeagle sharks often look similar to other prohibited species (*i.e.*, white sharks). Therefore, placing porbeagle sharks on the prohibited species list would prohibit landings and help rebuild this overfished species. It may also stop commercial and recreational landings of other look-alike shark species, such as white sharks, which are also prohibited.

Alternative suite 2 is not more protective of the species than alternative suite 4. In fact, it could result in more sandbar discards compared to alternative suite 4 (43.2 mt dw compared to 13.1 mt dw; see Table 4.1). In addition, allowing directed shark permit holders to fish for sandbar sharks with PLL gear, especially in the mid-Atlantic closed area, could increase discards and overall mortality of dusky sharks. Thus, sandbar sharks would be prohibited on PLL gear under alternative suite 2 to offer dusky sharks more protection. NMFS estimated that prohibiting the retention of sandbar sharks on PLL gear under alternative suite 2 could reduce dusky discards to 8.6 mt dw per year (see Table 4.1).

Finally, NMFS prefers alternative suite 4 because this alternative would implement reduced quotas and retention limits to rebuild depleted shark stocks and end overfishing of several shark species, while minimizing regulatory discards. In addition, it would allow for the collection of fishery dependent data for future stock assessments and biological samples for shark research. It would also allow a few shark fishermen to continue to fish and generate revenues from shark landings as they have in the past.

Comment 3: NMFS received several comments regarding alternative suite 3, including: NMFS should support a year-round incidental fishery where all participants could keep a few sharks (including sandbars) to avoid dead discards; NMFS should eliminate the directed shark permit; if NMFS allowed a bycatch industry only, prices for meat might increase because there would be a consistent quantity of sharks year-round; alternative suite 3 is best for retention limits; NMFS should support a revised alternative suite 3 with current reporting requirements and no restrictions for recreational fishermen, except the current species limitations.

Response: Positive ecological impacts would likely be more pronounced for some species under the preferred alternative suite 4 compared to alternative suite 3 because discards would be lower under alternative suite 4. For instance, sandbar discards under alternative suite 3 are estimated to be 23.5 mt dw per year, whereas under alternative suite 4, they would be approximately 13 mt dw (see Table 4.1). In addition, dusky discards under alternative suite 3 are estimated as 20.4 mt dw, whereas they are only 9.2 mt dw under alternative suite 4 (Table 4.1). Therefore, NMFS is preferring alternative suite 4 at this time.

Economic impacts under alternative suite 3 would vary depending on permit type. For instance, the retention limits under alternative suite 3 are higher than retention limits for incidental permit holders under alternative suite 4, possibly resulting in positive economic impacts for incidental shark permit holders. In addition, under alternative suite 3, incidental and directed permit holders would have the same retention limit. This would presumably remove the difference and value between permit types, which may benefit incidental permit holders, but may be detrimental to directed permit holders. Under the preferred alternative suite, directed and incidental permit holders outside the research fishery would have different non-sandbar LCS retention limits based on permit type. This would allow the distinction and value between directed and incidental permit types to continue. In addition, directed and incidental permit holders outside the research fishery would not be able to retain sandbar sharks. This would most likely result in

fishermen no longer directing on sharks outside the research fishery, which could have negative economic impacts on these fishermen. However, unlike alternative suite 3, in alternative suite 4, there would be a small research fishery, which would allow a few shark fishermen to direct on sharks and sell their catch. This research fishery would also allow the continuation of fishery dependent data collection to help with future stock assessments. Therefore, NMFS is preferring alternative suite 4 at this time.

Retention limits under alternative suite 3 and 4 were designed to keep the shark fishery open longer than it has been in the past. This could allow shark products to be available year-round, and possibly avoid gluts in the market, as was experienced in the past when a majority of the shark products were available for a short period of time.

In addition, under alternative suite 3 and 4, NMFS would change the reporting requirements to shark dealers mailing reports so that they are received by NMFS within 10 days after the reporting period ends. This would ensure timelier reporting and potentially avoid overharvests. However, under alternative suite 3, NMFS considered a list of species that recreational anglers could land; however, this list did not include blacktip, bull, or spinner sharks because of potential misidentification issues with overfished shark species. However, based on public comment, NMFS would revise this list to allow recreational fishermen to land these species. The diagnostic characteristic for recreational anglers would be the lack of an interdorsal ridge. Recreational fishermen would be allowed to land non-ridgeback LCS plus tiger sharks. This characteristic should allow fishermen to land blacktip, bull, and spinner sharks, but not mistakenly land sandbar sharks, which have an interdorsal ridge (and silky sharks, which are often misidentified as sandbar or dusky sharks). Therefore, given public comment and the revision in the allowable species for recreational anglers, NMFS is preferring alternative suite 4 over alternative suite 3 at this time.

Comment 4: NMFS should not use economic and historical significance of the directed fishery as a basis for selecting alternatives. NMFS did not prefer alternative suite 3 because “it diminishes the economic and historical significance of the directed fishery...” (72 FR 41400).

Response: NMFS did not select alternative suite 3 as the preferred alternative because the available sandbar and non-sandbar LCS quota would have been spread out over all directed and incidental permit holders, providing an extremely limited quota to a large number of fishermen. NMFS did not think this would be the best approach to rebuild the fishery. In addition, directed permit holders would have had the same retention limit as incidental permit holders, which would have diminished the value of directed shark permits. Under the preferred alternative suite 4, NMFS would establish a small research fishery where a small proportion of the directed shark fleet would be able to fish and harvest all shark species, except for prohibited sharks. In addition, NMFS evaluated retention limits of non-sandbar LCS for fishermen operating outside the shark research fishery. NMFS is preferring to preserve differences among directed and incidental permit holders and set separate retention limits based on permit type; directed permit holders would be allowed a higher retention limit than incidental permit holders. This affords directed permit holders, who presumably paid more for their directed shark

permit and rely on shark products for a larger part of their income, a higher retention limit than if all permit holders had the same retention limit. Thus, in the preferred alternative suite 4, NMFS would establish retention limits of 33 non-sandbar LCS for directed permit holders and 3 non-sandbar LCS retention limit for incidental permit holders.

Comment 5: All permit holders should be allowed to keep incidentally-caught sandbar sharks. NMFS should allow an incidental fishery, year-round, for all commercial permit holders.

Response: NMFS considered an alternative where all fishermen would be able to keep incidentally caught sandbar sharks under alternative suite 3. However, NMFS prefers alternative suite 4 because it would establish a small shark research fishery where the sandbar quota would be harvested. This research fishery was not proposed under alternative suite 3. Because of this, alternative suite 3 would have compromised NMFS' ability to collect fishery dependent data needed for future stock assessments, and therefore, was not preferred. This research fishery would allow NMFS to collect scientific data on sandbar sharks that is essential for future stock assessments. In addition, a few fishermen would be allowed to have some economic benefit from the sale of shark products. Spreading the sandbar shark quota among all fishermen with shark permits would not meet the goals established for the sandbar shark research fishery and would result in low retention limits fleetwide. Therefore, NMFS prefers alternative suite 4, which would end overfishing on depleted stocks while minimizing the severity of negative economic impacts that would occur as a result of these measures.

Comment 6: NMFS received several comments regarding alternative suite 5, including: NMFS should close the shark fishery, considering the poor status of most of the species in the LCS complex, the uncertainty of the blacktip assessment, and the ineffectiveness of NMFS shark recovery plans to date; a commercial fishery at this time is simply not acceptable; NMFS should support a catch, tag, and release (no finning) fishery only for all shark fisheries; NMFS should not support a commercial LCS fishery because it is not prudent or acceptable; NMFS should just close the sandbar and dusky fisheries; NMFS should be concerned about bycatch; NMFS should keep the Atlantic LCS fishery closed until more is known about these species; NMFS should narrow Alternative 5 to the commercial and large coastal fisheries; NMFS should consider closing the commercial LCS fishery entirely.

Response: NMFS does not believe that closing the entire shark fishery, or establishing a catch and release fishery, is warranted at this time. Recent stock assessments for sandbar, dusky, Atlantic blacktip, and porbeagle sharks indicate that these species are overfished or their status is unknown. In addition, NMFS is following the recommendations of these latest stock assessments and taking significant steps in this amendment to rebuild these overfished stocks, reduce fishing mortality, and allow these species to rebuild while minimizing economic impacts and achieving optimum yield. Alternative suite 5 would have the most positive ecological impacts for sharks, protected resources, and EFH of the alternative suites considered in this document. However, closing the Atlantic shark fishery under alternative suite 5 would also incur the most

economic impacts on U.S. shark fishermen, shark dealers, shark tournament operators, and others involved in supporting industries. There are numerous species of shark that are not overfished or experiencing overfishing, such as the Gulf of Mexico blacktip sharks, and therefore, do not warrant a full closure of the shark fishery at this time. Furthermore, by closing the shark fishery, the Agency would lose a valuable source of fishery dependent data (through logbooks and the sharks BLL observer program) that are essential for future shark stock assessments. Other alternative suites considered by NMFS would strike a balance between ending overfishing and allowing overfished shark stocks to rebuild and allowing some retention of sharks to meet the economic needs of the shark fishing community.

Comment 7: NMFS should reconsider a ban on BLL gear to reduce landings/mortality of sandbar and dusky sharks. There is not significant merit in the argument that more participants will transfer fishing effort to the gillnet fisheries for sharks.

Response: BLL gear is the primary gear used to harvest sharks by shark permit holders, but it is also deployed in other fisheries to target non-HMS (*i.e.*, snapper-grouper, reef fish, and tilefish). Many shark permit holders also maintain permits in these other non-HMS fisheries. Banning retention of sharks caught with BLL gear to reduce landings and mortality of sandbar and dusky sharks could result in regulatory discards of sharks because vessels deploying BLL gear in other fisheries would have to discard all incidentally caught sharks in the pursuit of other non-HMS species with BLL gear. In addition, by banning BLL gear for sharks, sharks could only be harvested by gillnet gear, rod and reel, or PLL gear. Given concerns of protected species interactions in both the PLL and gillnet fisheries, NMFS would not want to redistribute shark BLL effort into these fisheries. Therefore, NMFS is not considering banning BLL gear for sharks at this time.

Comment 8: NMFS should analyze an alternative suite that banned commercial shark fisheries without restricting the recreational shark fishery to lessen economic impact, overall.

Response: NMFS did not analyze a closure of the only the commercial shark fishery while allowing a recreational shark fishery to continue due to concerns over equity to different sectors. NS4 requires that allocation of fishery resources be fair and equitable to all fishermen. Since shark species that are overfished and experiencing overfishing are caught both in the commercial and recreational fisheries, NMFS considered management measures that applied to both sectors that would help rebuild shark stocks and end overfishing. Additionally, since commercial fishermen may sell shark products where recreational fishermen cannot, closing the commercial shark sector could have the largest economic impact. There are also numerous species of shark that are not overfished or experiencing overfishing, and therefore do not warrant a full closure of the commercial or recreational Atlantic shark fishery at this time. Furthermore, by closing the shark fishery, the Agency would lose a valuable source of fishery dependent data (through logbooks and the shark observer programs) that would limit future shark stock assessments. Therefore, NMFS prefers alternative suite 4.

Comment 9: NMFS should not establish a small research fishery because it would benefit few and disadvantage most of the shark fishermen. Everyone should get a chance at the quota, either through ITQs, or by having NMFS open up the fishery on January 1 every year and allowing all fishermen to catch sharks until the quota is has been filled.

Response: NMFS prefers alternative suite 4 to allow for the collection of scientific data with the sandbar shark quota while at the same time allowing a few fishermen to have some economic benefit from the sale of shark products. Spreading the sandbar shark quota among all fishermen with shark permits would not foster sandbar shark research. While NMFS agrees that ITQs may be beneficial to fishermen, it would take NMFS several years to implement an ITQ system. The primary goal of this amendment is to end overfishing and implement rebuilding plans for deplete shark stocks under the timeframe specified by Magnuson-Stevens Act. Due the complexities and time needed to develop and implement ITQs, NMFS does not have time to establish an IFQ or LAPP program for sharks within that time period. However, NMFS would consider developing an IFQ or LAPP program for sharks as well as other HMS in the future.

Comment 10: The Georgia Coastal Resources Division NMFS requests that NMFS should include an alternative on eliminating gillnets because of their large bycatch.

Response: In the past, shark gillnet fishermen have had 100-percent observer coverage during the Atlantic Right Whale Calving season and approximately 30-percent observer coverage during the rest of the year, which documents all bycatch on observed trips. Based on this observer coverage, compared to other gear types, such as PLL gear, gillnet gear has relatively low bycatch, with finfish bycatch ranging from 1.3 to 13.3-percent and observed sea turtle and marine mammals bycatch less than 0.1-percent. Given the reduction in trip limits as a result of this amendment, and the four to six vessels that currently use strike or drift gillnet for sharks, NMFS does not believe there would be a significant increase shark gillnet fishing pressure in the future and, therefore, NMFS does not feel it is appropriate to eliminate gillnets as an authorized gear at this time.

Comment 11: None of the suites completely represent the interests of the fishery.

Response: The alternative suites represent a range of management measures derived from scoping and public comment that could be considered based on stock assessments. NMFS assessed the impacts of the alternative suites, reviewed all public comments, and utilized the best available data to make a final analysis. NMFS prefers alternative suite 4 because it implements quotas and retention limits necessary to rebuild and stop overfishing of several shark species. The preferred alternative suite 4 maximizes scientific data collection by implementing a limited research fishery for sandbar sharks with 100-percent observer coverage. It also mitigates some of the significant economic impacts that are necessary and expected under all alternative suites to reduce fishing mortality as prescribed by recent stock assessments. Ultimately, alternative suite 4 strikes a balance between positive ecological impacts that must be achieved to rebuild and stop overfishing on depleted stocks while minimizing the negative economic impacts that would occur as a result of these measures.

Comment 12: We are concerned about wasteful discards under the proposed alternatives. NMFS should encourage responsible and targeted fishing by providing incentives for fishermen who can fish without discards or minimal discards.

Response: NMFS believes that the reduced trip limits (which would be approximately one quarter of the current trip limit for directed fishermen under the status quo) and the prohibition of the retention of sandbar sharks outside the research fishery would result in directed fishermen no longer targeting non-sandbar LCS. Currently, most of the discards of dusky, sandbar, and other shark species come from the directed shark fishery (see Table 4.1). The only directed shark fishing that would occur under the preferred alternative suite would be within the research fishery. Thus, under the preferred alternative where most fishermen would target other species and only incidentally catch non-sandbar LCS, NMFS does not anticipate excessive shark discards. For instance, based on shark BLL observer program data, on average, non-shark BLL trips caught one sandbar shark per trip and 12 non-sandbar LCS. The retention limits of 33 non-sandbar LCS per trip for directed permit holders would allow fishermen to keep incidentally caught non-sandbar LCS as they target other species. In addition, these non-shark trips typically have much shorter soak times (2-3 hours) compared to shark trips (12-14 hour soak times). Thus, it is estimated that most sandbar bycatch could be released alive since they would be released from longline gear in a relatively short period of time.

D.13 Science

Comment 1: NMFS received several comments regarding the rebuilding timeframe for sandbar sharks stating that NMFS should take a more precautionary approach rather than the maximum rebuilding timeframe of 70 years for sandbar sharks and that NMFS should consider a total ban on sandbar shark landings in all fisheries and an accelerated rebuilding timeframe of 38 years.

Response: The 2005/2006 LCS stock assessment discussed three rebuilding scenarios, including: rebuilding timeframe under no fishing; a TAC corresponding to a 50-percent probability of rebuilding by 2070; and a TAC corresponding to a 70-percent probability of rebuilding by 2070. Under no fishing, the stock assessment estimated that sandbar sharks would rebuild in 38 years. Adding a generation time (28 years), as described under NS1 for species that require more than 10 years to rebuild even if fishing mortality were eliminated entirely, the target year for rebuilding the stock was estimated to be 2070 (28 years mean generation time + 38 years to rebuild if fishing mortality eliminated = 66 years, starting in 2008). Assuming fishing mortality from 2005 to 2007 would be maintained at levels similar to 2004 (the last year of data used in the stock assessment was from 2004) and that there would be a constant TAC between 2008 and 2070, the assessment estimated that sandbars would have a 70-percent probability of rebuilding by 2070 with a TAC of 220 mt ww (158 mt dw)/year and a 50-percent probability of rebuilding by 2070 with a TAC of 240 mt ww (172 mt dw)/year. Since sharks are caught in multiple fisheries, a rebuilding timeframe of 38 years under no fishing would require management restrictions in many fisheries. Given the negative economic impacts associated with this, NMFS does not prefer such a rebuilding time

frame at this time. As described previously, NMFS is using the 70-percent probability of rebuilding to ensure that the intended results of a management action are actually realized given the life history traits of sandbar sharks.

Comment 2: NMFS received a comment stating disagreement with the science that suggests there is a decline in sandbar sharks because the industry went over their quota by 300-percent in two weeks and therefore shark populations are healthy and abundant.

Response: NMFS used the best available science and a rigorous SEDAR assessment process to make the determination that sandbar sharks are overfished. Recent landings and higher catch rates do not necessarily indicate errors in the stock assessment, or that the sandbar shark populations have recovered. Catch rates alone do not tell the whole story, nor do percentages because they may be a reflection of lower quotas as described in further detail below. Most catch rate series show stable or unclear trends in recent years, but large declines occurred in the late 1970s and 1980s. There has been a commercial quota imposed on the shark fishery since 1993; stable landings in the last decade most likely reflect the effect of a commercial quota, not necessarily a stable population. For instance, commercial catch declined from 162,000 individuals in 1989 to 72,600 individuals in 1993 prior to implementation of the commercial quota. A 300-percent overharvest of LCS does not necessarily mean that more sharks were being caught or that it represents a healthy shark population; rather, it may be the result of significantly reduced LCS quotas due to overharvests in recent years and fishermen continuing to fish at effort levels similar to those set in 2003 and 2004.

Comment 3: NMFS received a comment stating that fishermen/dealers do not properly identify what they are catching, which may have impacted the results of the stock assessment.

Response: Since 1993, species-specific reporting has been required for shark fishermen and shark dealers. However, some fishermen and dealers still report sharks in more general terms as “sharks” or “large coastal sharks”. These unclassified sharks have been problematic for shark stock assessments. Fisheries observers are trained in species-specific identification and report the correct species-level data. Thus, NMFS uses observer data to determine species composition of unclassified sharks for stock assessment purposes. In addition, recognizing that the accuracy of stock assessments and management can be improved with correct species identification, in the Consolidated HMS FMP, NMFS implemented mandatory shark identification workshops for shark dealers. The objective of these workshops is to reduce the number of unknown and improperly identified sharks reported in the dealer reporting form, and to increase the accuracy of species-specific dealer reported information, quota monitoring, and the data used in stock assessments. These workshops train shark dealers to properly identify Atlantic shark carcasses. NMFS is also developing an identification guide of the authorized species for recreational anglers.

Comment 4: NMFS received a comment stating that 80-percent of the landings in the VIMS dataset were sandbar sharks. The VIMS data says there are no large sandbar

sharks. However, we see large adult sandbar sharks all the time, and their size has not changed over time.

Response: The Virginia Institute of Marine Science's BLL survey examines catch rates for the LCS complex and sandbar sharks. This survey has sampled a set of seven stations since 1974. Over this time, the survey has collected over 5,200 sandbar sharks and more than 6,000 LCS. Over the course of the study (1974-2004), both the sandbar shark and the LCS complex showed significant declines, with no signs of recovery for all age classes. Because of a number of factors including environmental changes, the gear used, random sampling scheme used, and experience and efficiency of fishermen, the number of sharks seen by one person or in one year may not be representative of the stock as a whole. The stock assessment included a variety of data sources, which taken together indicated a decline in the sandbar shark population.

Comment 5: NMFS received several comments regarding the results of the 2005/2006 LCS stock assessments, specifically that 1) the science used in the LCS assessment for 2006 was questionable, and the stock assessment needs to be re-done before Amendment 2 is finalized, 2) the science regarding sandbar sharks is flawed, 3) that information/data was left out of the stock assessment, 4) that the stock assessment does not represent the best available science as indicated by the independent stock assessment specialists, and 5) that the specialists raised issues such as needed future research.

Response: The 2005/2006 LCS complex, sandbar, and blacktip shark stock assessments were conducted using the SEDAR process. SEDAR is organized around three workshops. The first is the data workshop, during which fisheries, monitoring, and life history data are reviewed and compiled. The second is the assessment workshop, during which assessment models are developed and population parameters are estimated using the information provided from the data workshop. The final workshop is the review workshop, during which independent experts review the input data, assessment method, and assessment products. All of the workshops are open to the public to ensure the assessment process is transparent. The review workshop panel consists of a chair and 2 reviewers appointed by the CIE, an independent organization that provides independent, expert reviews of stock assessments and related work. With regard to the LCS complex assessment, the review panel determined that the data utilized in the assessment were the best available to the analysis at the time. For the sandbar shark assessment, the review panel concluded that the population model and resulting population estimates were the best possible given the available data. The review panel was also confident that the 2005/2006 sandbar shark assessment produced more reliable estimates of stock status than previous stock assessments because the SEDAR stock assessment resulted in a more thorough review at all stages of the process. For the blacktip shark assessment in the Atlantic and Gulf of Mexico, the review panel determined that the data were treated appropriately, were adequate for the models used to assess the stocks and represented the best estimates of assessment information currently available. As one of the Terms of Reference for the Review workshop, the review panel was asked to develop recommendations for future research for improving data collection and stock assessments. These research recommendations are customary not only during

the review workshop but also during the data and assessment workshops and do not imply that the current research used in the stock assessment was insufficient. For a complete review of the documents used in the stock assessment, please visit http://www.sefsc.noaa.gov/sedar/Sedar_Workshops.jsp?WorkshopNum=11

Therefore, NMFS believes that the 2005/2006 LCS complex, blacktip and sandbar shark stock assessments represent the best available science and is not considering re-doing the stock assessment before implementing management measures in Amendment 2 to the Consolidated HMS FMP. Under the NS1 Guidelines, if a stock is overfished, NMFS is required to “take remedial action by preparing an FMP, FMP amendment, or proposed regulation...to rebuild the stock or stock complex to the MSY level within an appropriate time frame” (50 CFR 600.310(e)(3)(ii)). Additionally, “in cases where a stock or stock complex is overfished, [the] action must specify a time period for rebuilding the stock or stock complex that satisfies the requirements of section 304(e)(4)(A) of the Magnuson-Stevens Act.” Therefore, consistent with the results of the 2005/2006 LCS complex, blacktip and sandbar shark stock assessment results, the Consolidated HMS FMP and the Magnuson-Stevens Act, NMFS is implementing final management measures to rebuild sandbar, dusky and porbeagle sharks while providing an opportunity for the sustainable harvest of blacktip sharks and other sharks in the LCS complex.

Comment 6: NMFS received a comment stating that offers from an industry representative to give shark fin data to NMFS were refused and therefore historic fin data must have been left out of the assessment.

Response: NMFS included all shark fin data that were purchased from shark limited access permit holders by Federally permitted shark dealers, and all data from both the shark fin and carcass landings recorded and submitted by Federally permitted dealers, as required by the regulations at § 635.5 (b)(1)(i), in the 2005/2006 LCS stock assessments. In addition, during the data workshop for the 2005/2006 LCS stock assessments, the public was invited to submit data in the appropriate format to be considered for the stock assessment. If the data were not submitted in the appropriate format for assessment scientists to determine the applicability of the data, then they were not included in the assessment. The public would have additional opportunities to submit data during the data workshop at the next LCS stock assessment. This data would be included in the stock assessment provided that it is submitted in the appropriate format.

Comment 7: NMFS should have used the data from the Oregon II index which showed that the catch per unit effort was increasing.

Response: The Oregon II data was included in the 2005/2006 LCS complex, blacktip, and sandbar shark stock assessments. The SEFSC’s Mississippi Laboratories has conducted standardized BLL surveys from the Oregon II in the Gulf of Mexico, Caribbean and Southern North Atlantic since 1995. The data were reviewed by the indices working group at the data workshop. This data showed that blacktip shark catch rates, when combined with year, area, and depth as variables, increased in later years in the Gulf of Mexico and were low with breaks in the time series in the Atlantic south of

37°. The sandbar sharks catch rates in the Gulf of Mexico and Atlantic combined with year, area, and depth stayed about the same over the data time series. This data set was just one of many data sets related to abundance indices included in the 2005/2006 stock assessment.

Comment 8: NMFS received a comment stating that NMFS should have included Mexican data of shark catches in the 2005/2006 LCS assessment.

Response: The 2005/2006 LCS complex, blacktip, and sandbar shark assessment did include detailed estimates of Mexican catches of blacktip and sandbar shark for the period of 1962-2000. Species composition in weight for different sharks taken in Mexican waters was estimated from the data given in several Mexican studies. These were then used to estimate the total weight and numbers caught of each species in each state. In addition, annual estimates from 2000-2004 of illegal catches of LCS from Mexican fishing vessels fishing in the U.S. EEZ were also included in the 2005/2006 LCS stock assessments.

Comment 9: NMFS received a comment stating that NMFS does not need to implement an amendment to the Consolidated HMS FMP until July 12, 2009.

Response: The mandate to rebuild overfished stocks is in § 304(e) of the Magnuson-Stevens Act. The Magnuson-Stevens Act states that for stocks identified as overfished or having overfishing occurring, the appropriate Council or Secretary shall prepare a fishery management plan, plan amendment, or proposed regulations for the fishery to end overfishing in the fishery and rebuild affected stocks within one year of that determination. NMFS satisfied that timing provision: sandbar sharks and dusky sharks were determined to be overfished with overfishing occurred on November 7, 2006 (71 FR 65086), and NMFS published the draft Amendment 2 to the Consolidated HMS FMP on July 27, 2007 (72 FR 41325). NMFS notes that the 2006 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act amended § 304(e) to include a two-year timing provision for preparation and implementation of actions, and the new provision will be effective July 12, 2009.

Comment 10: NMFS received several comments regarding conflict of interest, including, 1) there was a conflict of interest at the LCS assessment workshop and review workshop; 2) several reviewers were biased against the industry; 3) the stock assessment is fixed to give a particular outcome based on pressures by conservationists, and; 4) there are conflicts of interest between NMFS employees and the American Elasmobranch Society which should invalidate all studies and assessments.

Response: NMFS does not believe that there was any conflict of interest on the part of participants or reviewers in the stock assessment process. The third workshop in the SEDAR process is the review workshop during which a panel of independent experts reviews the input data, assessment methods, and assessment products. This workshop is open to the public. The review workshop panel consists of a chair and 2 reviewers appointed by the CIE, an independent organization that provides independent, expert reviews of stock assessments and related work. The individuals appointed to the review

panel can have no affiliation with any of the affected parties to the assessment, including government, industry, or advocacy groups. The review workshop chair is appointed by the CIE. Two additional reviewers, selected by the Shark SEDAR Coordinator for their expertise in shark stock assessments, were also included on the LCS shark complex review panel. The panel concluded that the data used in the analyses, the assessment approach, and overall conclusions of the assessment were valid. The panel provided no indication that there were any conflicts of interest during the assessment process.

The American Elasmobranch Society (AES) is a non-profit organization that seeks to advance the scientific study of living and fossil sharks, skates, rays, and chimaeras, and the promotion of education, conservation, and wise utilization of natural resources. The Society holds annual meetings and presents research reports of interest to students of elasmobranch biology. Those meetings are held in conjunction with annual meetings of the American Society of Ichthyologists and Herpetologists each year at rotating North American venues. Membership in the AES is open to any person who has an interest in the object of AES. Members of AES include, but are not limited to, representatives from state and federal governmental and non-governmental organizations, and academic institutions. NMFS employees are not restricted from participating in professional societies, and therefore, NMFS believes that there is not a conflict of interest between NMFS employees and AES.

Comment 11: NMFS should assess the eleven prohibited LCS species individually and in a public forum and that the shark stock assessments should break out all sharks by species, especially bull sharks, scalloped hammerhead, and tiger sharks.

Response: NMFS continues to collect species-specific data in support of species-specific stock assessments. To date, NMFS has conducted individual stock assessments for dusky, sandbar, blacktip, Atlantic sharpnose, finetooth, blacknose, and bonnethead sharks. As additional biological and fishery-related data become available, NMFS would conduct other species-specific stock assessments.

Comment 12: NMFS possessed certain species-specific knowledge regarding blacktip sharks that it failed to produce for the assessment.

Response: NMFS has included all the available data that were presented at the data workshop and has not withheld or failed to produce relevant datasets. NMFS held a data workshop for the 2005/2006 LCS stock assessment that was open to the public and requested that participants submit any relevant data or analysis in the form of working documents. During the assessment workshop, the assessment scientists determined the adequacy and appropriateness of the submitted data to be included in each assessment.

Comment 13: Why did the 2005/2006 LCS stock assessment not assess sandbars as two separate populations, one in the Gulf of Mexico and one in the Atlantic similar to what was done for blacktip sharks.

Response: During the data workshop portion of the LCS stock assessment, the life history working group looked at multiple studies and data sources to summarize life

history information such as stock definition, age, growth size at maturity, and mortality for sandbar, and blacktip sharks that was then used in the stock assessments for each species. For sandbar sharks, after considering the available data, the working group decided that the stock definition should be the Western North Atlantic from southern New England to the Gulf of Mexico. Tagging studies suggest that one stock unit exists from Cape Cod south down the U.S. Atlantic coast and into the Gulf of Mexico, extending around the U.S. and Mexican portions of the Gulf of Mexico to the northern Yucatan peninsula. Genetic studies conducted on specimens from Virginia waters and the Gulf of Mexico further support the existence of a single stock that utilizes the area of Cape Cod to the northern Yucatan peninsula. For blacktip sharks, conventional tagging evidence suggests little exchange between the U.S. Atlantic Ocean and Gulf of Mexico. Genetic heterogeneity and female philopatry also demonstrates multiple genetic reproductive stocks among blacktip sharks in the Gulf of Mexico and South Atlantic Bight. Therefore, blacktip sharks were divided into two stocks: an Atlantic stock defined as extending from Delaware to the Straits of Florida, and a Gulf of Mexico stock designated as extending from the Florida Keys throughout the Gulf of Mexico.

Comment 14: NMFS received a comment asking who the peer reviewers were for the 2006 dusky assessment.

Response: In order to preserve the integrity of the independent review process of stock assessments, NMFS does not provide the names of the peer reviewers, including those used for the dusky shark assessment.

Comment 15: NMFS received several comments regarding the continuation of shark data collection once Amendment 2 is implemented, asking how NMFS is going to do a stock assessment after Amendment 2 is implemented because NMFS would have no data from fishermen, and that NMFS should obtain more data from the fishermen by placing scientists on fishing vessels.

Response: The management measures in this amendment would establish a small research fishery that would harvest the entire commercial sandbar shark quota. Vessels operating within the shark research fishery could also retain non-sandbar LCS, SCS and pelagic sharks. These vessels would also have 100-percent observer coverage. Vessels operating outside of the shark research fishery would only be able to retain non-sandbar LCS, SCS and pelagic sharks. The vessels outside the shark research fishery would continue to be selected for observer coverage. Observers provide baseline characterization information, by region, on catch rates, species composition, catch disposition, relative abundance, and size composition within species for the large coastal and small coastal shark BLL fisheries. NMFS would use observer data as well as logbook and shark dealer data and fisheries independent data to conduct stock assessments in the future.

Comment 16: NMFS received a comment supporting stock assessments that occur in the United States and not those that occur in other countries.

Response: To date, the United States has not conducted a stock assessment on porbeagle sharks. NMFS has reviewed the Canadian stock assessment and found that it made full use of all fishery and biological information available and therefore deems it to be the best available science and appropriate to use for U.S. domestic management purposes. Canada has conducted stock assessments on porbeagle sharks in 1999, 2001, 2003, and 2005. Reduced Canadian porbeagle quotas in 2002 brought the 2004 exploitation rate to a sustainable level. According to the 2005 recovery assessment report conducted by Canada, the North Atlantic porbeagle stock has a 70-percent probability of recovery in approximately 100 years if F is less than or equal to 0.04. The Canadian assessment indicates that porbeagle sharks are overfished ($SSN_{2004}/SSN_{MSY} = 0.15 - 0.32$; SSN is spawning stock number and used as a proxy for biomass). However, the Canadian assessment indicates that overfishing is not occurring ($F_{2004}/F_{MSY} = 0.83$). Based on these results, NMFS declared the status of porbeagle sharks as overfished, but overfishing is not occurring (71 FR 65086).

Comment 17: NMFS received a comment asking if shark migration patterns been studied along with sea surface temperatures.

Response: Sea surface temperature is an important physical data parameter that is collected during investigations of shark migration patterns. The data workshop for the 2005/2006 LCS stock assessment included several studies investigating the correlation of sea surface temperature and shark migration patterns. A summary of these studies and reference citations can be found in the SEDAR 11 final stock assessment report available on the HMS website at http://www.nmfs.noaa.gov/sfa/hms/hmsdocument_files/sharks.htm.

Comment 18: Does NMFS have an idea of the status of common threshers? It seems that they are abundant.

Response: To date, NMFS has not conducted a species-specific stock assessment for thresher sharks and their status in the Atlantic Ocean is unknown. However, commercial landings data compiled from the most recent stock assessment documents indicate approximately 307, 291 lb dw of thresher sharks have been landed from 2000 to 2005. Recreational landings data obtained from the recreational landings database for HMS indicates approximately 8,000 thresher sharks have been harvested in the Atlantic HMS recreational shark fishery from 1999 to 2005.

Comment 19: NMFS should implement the status quo, Alternative 1, because this is the only viable option for Amendment 2 until the scientific issues that have been raised are addressed and resolved.

Response: As described in response to comments 5 and 10, NMFS disagrees that the results of the LCS assessment should be put on hold due to concerns raised about the scientific validity and impartiality of reviewers. NMFS has carefully reviewed and considered all public comments received on the assessment and determined that the assessment was appropriate, used the best scientific data available, and is scientifically valid. The 2005 Canadian porbeagle shark stock assessment, the 2006 dusky shark

assessment, and the 2005/2006 LCS stock assessment determined that porbeagle, dusky, and sandbar sharks are overfished. Overall, the status quo alternative, which would maintain the current annual LCS quota of 1,017 mt dw, in conjunction with the management measures mentioned above, would have negative ecological impacts on sandbar, dusky and porbeagle sharks, as well as protected resources and marine mammals. The social and economic impacts would likely be neutral because current fishing effort would remain the same in the short term. In the long term, as stocks continue to decline, profits may decrease as costs associated with finding and catching these depleted stocks increases. Management measures are needed to rebuild overfished stocks and prevent overfishing consistent with the mandates of the Magnuson-Stevens Act. Therefore, maintaining the LCS quota of 1,017 mt dw would be inconsistent with the Magnuson-Stevens Act and the recent LCS stock assessment that recommended a TAC of 158.3 mt dw for sandbar sharks in order for this species to rebuild by 2070. Current fishing effort, under the status quo alternative, would lead to continued overfishing of sandbar, porbeagle and dusky sharks, which would prevent these species from rebuilding in the recommended timeframe. As a result, NMFS did not implement this alternative. Rather, NMFS prefers to implement quotas and retention limits necessary to rebuild and stop overfishing of several shark species while maximizing scientific data collection by implementing a limited research fishery for sandbar sharks. The final management measures also mitigate some of the significant economic impacts that are necessary and expected under all alternative suites 2 through 5 to reduce fishing mortality as prescribed by recent stock assessments. The final management measures strike a balance between positive ecological impacts that must be achieved to rebuild and stop overfishing on depleted stocks while minimizing the severity of negative economic impacts that would occur as a result of these measures. By allowing a limited number of historical participants to continue to harvest sandbar sharks within the research fishery, NMFS ensures that data for stock assessments and life history samples would continue to be collected. Directed permit holders not selected to participate in the shark research fishery would still be authorized to land 33 non-sandbar LCS per vessel per trip and incidental permit holders would be authorized to land 3 non-sandbar LCS per trip. This would limit the number of trips targeting non-sandbar LCS sharks; however, it would still afford the opportunity to keep non-sandbar LCS that are landed incidentally, preventing excessive discards.

Comment 20: The stock assessment is flawed because sandbar sharks do not occur west of Mobile, Alabama.

Response: The stock assessment represents the best available science, and included all data that was presented at the Data Workshop for 2005/2006 LCS stock assessment. Included in the assessment are fishery independent shark surveys that were conducted from 1995-2005 from the Oregon II. The results of that survey can be found in LCS05-06-DW-27. This survey showed the capture of sandbar sharks in the Gulf of Mexico, including west of Mobile, Alabama (see Figure 4 within LCS05-06-DW-27).

D.14 National Standards

Comment 1: The proposal to prohibit blacktip sharks in the recreational fishery violates NS2 of the Magnuson-Stevens Act because the stock assessment determined that blacktip sharks in the Gulf of Mexico are not overfished.

Response: NS2 requires that conservation and management measures be based upon the best scientific information available. NMFS believes that the 2006/2007 LCS stock assessment constitutes the best available science. The 2005/2006 LCS complex, sandbar, and blacktip shark stock assessments were conducting using the SEDAR process. SEDAR is organized around three workshops. All of the workshops are open to the public to ensure the assessment process is transparent. The review workshop panel consists of a chair and 2 reviewers appointed by the CIE, an independent organization that provides independent, expert reviews of stock assessments and related work. With regard to the LCS complex assessment, the review panel determined that the data utilized in the assessment were the best available to the analysis at the time. For the sandbar shark assessment, the review panel concluded that the population model and resulting population estimates were the best possible given the available data. The review panel was also confident that the 2005/2006 sandbar shark assessment produced more reliable estimates of stock status than previous stock assessments because the SEDAR stock assessment resulted in a more thorough review at all stages of the process. For the blacktip shark assessment in the Atlantic Ocean and Gulf of Mexico, the review panel determined that the data were treated appropriately, were adequate for the models used to assess the stocks and represented the best estimates of assessment information currently available.

In the proposed rule, NMFS proposed an authorized recreational species list that was limited to those species that are easy to identify or that could not be misidentified with other species. NMFS originally proposed to prohibit the retention of blacktip sharks because of the potential for misidentification with spinner sharks, but specifically asked for public comment on the proposed list of prohibited species. As a result, based on public comments received and because blacktip sharks are healthy in the Gulf of Mexico, NMFS prefers an amended authorized shark species list in the recreational fishery. The amended list is based on readily identifiable characters such as the lack of an inter-dorsal ridge, which would enable the landing of non-ridgeback sharks plus tiger sharks. This would add blacktip, spinner, finetooth, porbeagle and bull sharks to the list of authorized species for recreational anglers in all regions.

Comment 2: NMFS violated NS4 of the Magnuson-Stevens Act because the commercial fishery will be allowed to catch their TAC and the recreational fishery cannot catch the same species of sharks

Response: NS4 requires that conservation and management measures shall not discriminate between residents of different States. Based on public comments, NMFS is modifying the list of authorized species in the recreational shark fishery to address concerns expressed by certain states that prohibiting blacktip and other sharks would unfairly discriminate against the recreational fishery. This amended list more closely

aligns with the authorized species in the commercial fishery. NMFS would continue to prohibit sandbar and silky sharks in the recreational fishery due to concerns of misidentification with dusky sharks and because sandbar sharks are overfished. However, most of the commercial sector would not be able to retain sandbar sharks unless fishermen participate in the shark research fishery. Thus, other than in the shark research fishery, NMFS is prohibiting the retention of sandbar sharks in both the commercial and recreational sectors.

Comment 3: NMFS violated NS8 of the Magnuson-Stevens Act because Port Aransas is a fishing community and was not treated as such in the analysis.

Response: NS8 requires that conservation and management measures shall, consistent with the conservation requirements of the Magnuson Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities. NMFS recognizes the importance of Port Aransas, TX, and numerous other communities as fishing communities. A social impact and community profile assessment was completed for the 2006 Consolidated HMS FMP. Section 9 of the Consolidated HMS FMP includes an analysis of the State of Texas and the fishing communities within the state. Because this analysis was recently completed, it was not repeated for the Draft EIS for Amendment 2 to the Consolidated HMS FMP, however, it was referred to in the Draft EIS for Amendment 2 to the Consolidated HMS FMP. The Final EIS for Amendment 2 to the HMS FMP includes a recently completed report by MRAG Americas, Inc. and Jepson (2008) that provides updates to the social impact and community profile assessments for HMS dependent fishing communities. This report can be found in Appendix E.

Comment 4: NMFS violated NS9 of the Magnuson-Stevens Act because all the proposed prohibited species will be released and some will die and, thus, bycatch will not be minimized.

Response: NS9 says that conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch. The reduced commercial shark quotas and retention limits proposed in Amendment 2 to the Consolidated HMS FMP would greatly reduce bycatch of target and non-target species. Because of the reduced retention limits outside the research fishery, it is likely that fishermen would not be targeting non-sandbar LCS. In addition, retention limits under the final management measures are such that fishermen targeting non-shark species should be able to retain incidentally caught non-sandbar LCS. Soak times in non-shark BLL and gillnet fisheries are also much shorter than commercial shark sets; these shorter soak times should increase post-release survival of sandbar sharks. Regulatory discards were taken into consideration when determining the quotas and retention limits of sandbar and non-sandbar sharks both inside and outside of the research fishery. In addition, commercial fishermen using BLL and PLL gear are required to have specified safe handling and release gear on board, which should help release shark bycatch in such a manner to maximize post-release survival. In the

recreational fishery, NMFS is modifying the list of authorized species. This amended list more closely aligns with the authorized species in the commercial shark fishery. NMFS intends to increase educational outreach to the recreational fishing sector to increase shark identification to avoid misidentification with prohibited species. Bycatch in the recreational fishery is also minimized because soak times are considerably less than those in commercial fisheries.

D.15 Economic Impacts

Comment 1: NMFS should consider an alternative suite that incorporates a “phase out” of the commercial shark industry. The present stock situation is untenable. Prolonged rebuilding periods are not acceptable. Managing a minimal yet unsustainable large coastal shark fishery violates NS1 of the Magnuson-Stevens Act. The costs of management far outweigh the benefits to a small number of fishermen who target sharks commercially.

Response: NMFS did consider a suite in the Draft EIS that would have ended Atlantic commercial shark fishing, alternative suite 5. Under this proposed alternative, shark landings would be limited to research and the collection for public display via the HMS Exempted Fishing Program. Recreational fisheries would be catch and release only. However, after careful consideration of the other alternatives, this alternative suite was not selected.

Longer rebuilding periods are allowed under NS1 of Magnuson-Stevens Act when the following conditions specified in the NS 1 Guidelines (50 CFR 600.310 (e)(4)(ii)(B)(3)):

“[i]f the lower limit is 10 years or greater, then the specified time period for rebuilding may be adjusted upward to the extent warranted by the needs of fishing communities....except that no such upward adjustment can exceed the rebuilding period calculated in the absence of fishing mortality, plus one mean generation time or equivalent period based on the species’ life-history characteristics.”

NMFS recognizes that the costs of managing the shark fishery relative to the level of future shark fishing activity will be high. However, there are non-monetary benefits associated with maintaining a limited commercial shark industry. These benefits include the ability to continue gathering fishery data, maintenance of industry knowledge regarding shark fishing practices, and other potential cultural and social benefits. The preferred alternative attempts to balance the economic needs of fishing communities with the recommendations of recent stock assessments. BLL and gillnet gear would continue to be deployed in other fisheries that interact with sharks. Setting a retention limit that allows fishermen to keep a portion of these fish without targeting non-sandbar LCS would minimize dead discards while discouraging targeting of non-sandbar LCS. Allocating the entire sandbar shark quota to a shark research fishery quota would result in collection of data that would improve future stock assessments and management measures in place for the fishery.

Comment 2: NMFS received several comments regarding an industry buyout/buyback. These comments include: the environmentalists should fund a buyout of the commercial shark fishery; NMFS should consider a buyout to provide financial relief for the shark fishermen that will be put out of business as a result of the preferred alternative; NMFS should buy all of the directed shark permits for \$50,000 to \$100,000 because NMFS sold them to fishermen and created this problem; the industry is not in favor of a 5-percent tax to come up with buyout money; a buyout plan aimed at removing longline and gillnet vessels from the shark fishery and other fisheries would reduce fishing pressure, reduce bycatch and protected species interactions, and would address NMFS' concern that further reducing shark landing quotas will result in redistribution of fishing effort on other equally harmful fisheries.

Response: NMFS recognizes that some participants of the Atlantic shark fishery expressed interest in reducing fishing capacity for sharks via some form of buyout program. Buyouts can occur via one of three mechanisms, including: through an industry fee, via appropriations from the United States Congress, and/or provided from any State or other public sources or private or non-profit organizations. A buyout plan is not proposed in this amendment, despite requests for consideration from the HMS Advisory Panel and other affected constituents, because the Agency is unable to implement a buyout as a management option. Buyouts must be initiated via one of the aforementioned mechanisms.

The shark fishery did develop an industry "business plan" that examined options for a buyout, which is further described in Chapter 1 of the Draft EIS.

Comment 3: NMFS should look at data on the number of commercial permit holders by state and the socio-economic impacts of the proposed measures on these fishermen.

Response: NMFS examined the number of commercial permit holders by state. This information was presented in Table 9.1 of the Draft EIS. The socio-economic impacts of the preferred measures were analyzed in Chapters 6, 7, and 8 of the Draft EIS for Amendment 2.

Comment 4: NMFS received several comments concerning the potential for severe economic impacts associated with all of the alternatives considered (other than status quo). Comments indicated a concern that many fishermen may not be able to survive economically until the next stock assessment. One dealer for example saw a 75-percent decrease in revenue in 2007 because of restrictions. The lack of a shark season in 2008 could bring about a financial collapse of the industry. The industry is completely based on sandbar sharks.

Response: NMFS has estimated that the alternatives considered, including the no action alternative, would result in economic consequences to the shark fishery. The severity of the economic consequences varies by alternative suite, with alternative suite 5, the complete closure of the Atlantic shark fishery, having the greatest economic impact.

The economic impacts of the various alternative suites are summarized in Table 7.5 of the EIS for Amendment 2.

NMFS acknowledges that dealer impacts could also be substantial and could vary significantly depending upon how important sharks are to their operations.

NMFS recognizes the importance of sandbar shark landing to the shark fishing sector. However, sandbar shark landings only composed 30-percent of the estimated total value of the shark fishery in 2005 (\$602,764 in sandbar shark meat and \$1,181,803 in fins, versus a total shark fishery revenue of \$6,027,516).

Comment 5: NMFS should include analysis of the negative economic impacts associated with prohibiting porbeagle sharks in shark tournaments, especially in New England. These tournaments have negligible impacts on porbeagle stocks. An example was provided regarding a tournament that has caught only 4 porbeagle sharks in the past 10 years.

Response: NMFS appreciates this additional information regarding the importance of porbeagle sharks in tournament fisheries. Additional information has been incorporated into the final EIS for Amendment 2 to further address the potential economic impacts of a prohibition of porbeagle landings. Based on public comments received, NMFS selected an alternative suite that permits the recreational retention of porbeagle sharks.

NMFS is reviewing existing data sources for recreational landings of porbeagle sharks. Efforts to expand recreational data collection may be necessary to improve information on porbeagle shark landings in recreational fisheries.

Comment 6: NMFS should specify what the \$1.8 million fishery-wide economic impacts include; recreational, commercial, or both? Recreational impacts would be significant if sandbar, bull, and blacktip are not authorized to be landed in the recreational fishery. NMFS has grossly underestimated the impact to recreational fishermen in this proposal.

Response: The \$1.8 million discussed for the preferred alternative is the estimated reduction in gross revenues from sandbar and non-sandbar LCS resulting from the proposed quota reductions to the commercial shark fishery. Impacts to the recreational shark fishing sector were also analyzed. For the preferred alternative, these impacts included: the negative economic impacts resulting from the reduced number of sharks that could be legally landed by recreational anglers, particularly pronounced in areas where blacktip sharks are frequently encountered. In addition, tournaments offering prize categories for sharks could also experience negative economic impacts as a result of not allowing six additional species to be retained in recreational fisheries. Due to a lack of information regarding the relative preferences of shark fishermen to retain shark species over practicing catch-and-release shark fishing, the Agency was unable to quantitatively estimate the economic impacts of the proposed recreational measures restricting the authorized list of species that could be retained.

Final measures would allow recreational anglers to harvest blacktip, finetooth, bull, spinner, and porbeagle sharks.

Comment 7: Proposed measures will result in a year-round fresh shark meat product. Inconsistent seasons are not good for prices and shark meat is currently \$0.30 because the market is flooded so quickly and then seasons are over so soon.

Response: NMFS recognizes that moving to one season for the shark fishery could alleviate some of the uncertainty in the market associated with varying shark seasons. Depending on the intensity of fishing effort at the beginning of the season, there is indeed the potential that the measures would result in a year-round fresh shark meat market. This could help improve the prices received for shark meat and help offset some of the negative economic impacts associated with this rule.

Comment 8: Dealers will not likely be interested in continuing to buy shark products when the proposed measures go into place.

Response: NMFS acknowledges that some dealers may opt to no longer participate in the shark fishery. However, the information available to the Agency indicates that several shark dealers already handle small quantities of shark products, and therefore, changes in the shark fishery are unlikely to cause them to change their business practices. Reduced domestic harvest of sandbar sharks could potentially increase the value of harvest in the future due to reduced supplies. Furthermore, having the season open for a longer period of time each year, subject to reduced retention limits, may enhance the domestic shark meat market and increase prices.

Comment 9: Closing fisheries increases the quantity of fisheries products and other countries do not have the conservation measures that are present in the United States.

Response: The United States imports modest quantities of shark species. According to U.S. Census Bureau data, the United States imported 459 mt of shark in 2006 with an estimated value of \$3.41 million. In contrast, the United States exported 1597 mt of shark in 2006 estimated to be worth \$6.17 million. The United States may be an important transshipment port for shark fins, which may be imported wet, processed and then exported dried. The United States is in fact a net exporter of shark species. NMFS acknowledges that other countries may not have the same conservation measures as the United States.

Comment 10: NMFS should implement a retraining program for fishermen and families that are displaced by this action. Others suggested fishermen reconfigure their businesses towards providing tourism services.

Response: NMFS has worked with a number of other agencies/departments to explore programs that are available to fishermen and other businesses affected by fishery management measures. Some of these include retaining programs.

The Economic Development Administration (EDA) was created to create new jobs and retain existing jobs in economically stressed communities. Through a series of grant programs, the EDA helps distressed communities develop strategies to improve their own economic situation through a multifaceted cooperative effort. Most of the EDA activity affecting the fishing industry has been funded through the EDA's Public Works Program and the EDA's Economic Adjustment Program. The Public Works Program has funded port and harbor improvements. The Economic Adjustment Program helps communities adjust to serious changes in their economic situation, and proceeds from this program are generally used for organization, business development, revolving loan funds, infrastructure, and market research. Interested parties can learn more about these programs, including eligibility requirements and contact information, by visiting the EDA website: <http://www.eda.gov/>.

The U.S. Department of Labor's Economic Dislocation and Worker Adjustment Assistance Act provides funds to States and local substate grantees so they can help dislocated workers find and qualify for new jobs. It is part of a comprehensive approach to aiding workers who have lost their jobs that also includes provisions of the Worker Adjustment and Retraining Notification Act and the Trade Adjustment Assistance program. Workers who have lost their jobs and are unlikely to return to their previous industries or occupations are eligible for the program. This includes workers who lose their jobs because of plant closures or mass layoffs; long-term unemployed persons with limited job opportunities in their fields; and farmers, ranchers and other self-employed persons who become unemployed due to general economic conditions. Services include retraining services, readjustment services, and needs-related payments. Interested parties can obtain more information about services available and contact information by visiting the following website: <http://www.doleta.gov/tradeact/>.

Comment 11: Commenters suggested that NMFS consider giving shark fishermen swordfish handgear permits in order to help offset negative economic impacts, while also increasing swordfish landings.

Response: NMFS did not propose changes to the permit system, however, the Agency will take this suggestion under consideration for future actions. The Agency notes that the swordfish handgear permit is a limited access permit. Therefore, issuing new swordfish handgear permits may result in negative economic impacts to current holders of swordfish handgear permits. In addition, NMFS has been recently issued new regulations to revitalize the swordfish fishery and may consider additional measures in the future depending on the outcome of the current regulatory changes.

Comment 12: NMFS should consider the compound effect of this Amendment and the economic hardships of the Gulf of Mexico red snapper fishing industry.

Response: NMFS considered the cumulative impact of this Amendment with that of other regulatory changes in other fisheries, including the Gulf of Mexico red snapper fishing industry. This analysis is provided in Chapter 4 of the Draft EIS.

Comment 13: If NMFS does not maintain the status quo, NMFS should declare an emergency disaster.

Response: Section 312 (a) of the Magnuson-Stevens Act addresses fisheries disaster relief. This section states:

“At the discretion of the Secretary or at the request of the Governor of an affected State or a fishing community, the Secretary shall determine whether there is a commercial fishery failure due to a fishery resource disaster as a result of natural causes, man-made causes beyond the control of fishery managers to mitigate through conservation and management measures, including regulatory restrictions (including those imposed as a result of judicial action) imposed to protect human health or the marine environment, or undetermined causes.”

All analyses for determinations (which can be at the request of a Governor or at the Secretary’s own discretion) under 312 (a) must undergo a three-prong test. The Secretary must determine if there has been a commercial fishery failure. He must also determine that any such failure is the result of a fishery resource disaster. The cause of that disaster must meet the articulated causes outlined in the statute.

Comment 14: NMFS should look into the impact of this Amendment on the consumer. How much will consumer costs increase as a result of your action?

Response: NMFS did not focus its analysis of the impacts of this Amendment on the consumer since shark is primarily exported. The domestic consumption of shark fins is limited. It is unlikely that reduction in the production of shark fin will impact consumer prices in the United States. The consumption of fresh shark meat is somewhat limited and is not as widespread as that of other fish species in the U.S. market. There may be some impacts to domestic consumers of shark, especially sandbar sharks, as a result of the preferred management measures. However, it is unlikely that this Amendment will result in significant increases in consumer costs due to the availability of imports. Information available on consumer prices of shark and domestic demand of shark products is limited, making it infeasible to conduct a more quantitative analysis of the impacts on consumers.

Comment 15: NMFS received a comment questioning whether shark permits will still be worth anything after the proposed management changes take place.

Response: It is uncertain as to what shark directed and incidental permits may be worth after the management changes associated with this Amendment are implemented. It is likely that shark permits may be worth less as a result of quota reductions and reduced retention limits. However, there will still be some demand for shark permits by new entrants into the commercial swordfish and tuna fisheries that require all three HMS permits to go fishing.

Note that under 50 CFR 635.4(3), “Limited access vessel permits or any other permit issued pursuant to this part do not represent either an absolute right to the resource or any interest that is subject to the takings provision of the Fifth Amendment of the U.S.

Constitution. Rather, limited access vessel permits represent only a harvesting privilege that may be revoked, suspended, or amended subject to the requirements of the Magnuson-Stevens Act or other applicable law.”

Comment 16: NMFS received comments indicating that requiring fishermen to land sharks with fins on will change the entire pricing structure. NMFS could be changing the whole valuation process here by requiring that sharks have their fins on.

Response: The requirement to land sharks with their fins attached would allow fishermen to leave the fins attached by just a small piece of skin so that the shark could be packed on ice at sea efficiently. Shark fins could then be quickly removed at the dock without having to thaw the shark. Sharks may be eviscerated, bled and the head removed from the carcass at sea. These measures should prevent any excessive amounts of waste at the dock, since dressing (except removing the fins) the shark can be performed while at sea. While this will result in some changes of how fishermen process sharks at sea, because the fins can be removed quickly once the shark has been landed. NMFS expects that the market will continue to receive sharks in their log form. While there may be some changes in the way sharks are marketed and priced, it is unlikely that the total ex-vessel value of sharks will change significantly due to the requirement to land sharks with their fins attached.

Comment 17: NMFS needs to reduce the number of limited access permits.

Response: Reducing the number of limited access permits was not proposed for this Amendment because of the ramifications that taking this action would have on other fisheries and the overall HMS permit structure. NMFS chose to limit effort via management measures in this proposed rule because these measures can be implemented with greater expediency and improve the likelihood that fishing mortality will be reduced consistent with NS1. The Agency may consider reductions in the number of permits in future actions.

D.16 Miscellaneous

Comment 1: There should not be any netting allowed in the Delaware Bay as this is a nursery ground for sharks.

Response: The waters of the Delaware Bay are in state waters; therefore any management of sharks in Delaware Bay is conducted by the states of New Jersey, Delaware, and Pennsylvania. The Consolidated HMS FMP only regulates fisheries in Federal waters.

Comment 2: In the “old” Magnuson-Stevens Act (before reauthorization), there was a section indicating that if NMFS reduces incomes by 13-percent, then fishermen are supposed to receive due compensation.

Response: The current Magnuson-Stevens Act has no such provision.

Comment 3: NMFS should allow vessel owners to keep sharks that are dead at haulback if observers are onboard the vessel.

Response: The Agency did not consider modifying this provision in the draft Amendment 2 to the Consolidated HMS FMP. Generally speaking, the observers are onboard to monitor fishing activities. It is not the responsibility of observers to predict whether or not sharks caught during fishing activities would survive if released. All sharks that are not, or can not be possessed must be released in a manner that would maximize their chances of survival. Allowing dead sharks to be harvested only when observers are onboard could potentially put them in more of an enforcement role which is not the intent of the fisheries observer program. Furthermore, this might encourage fishermen to fish in a different manner when observers are onboard. Modifying the soaktime or types of hooks and bait deployed to ensure that more sharks are dead at haulback would not provide the observer program with data that is representative of fishing behavior when observers are not present. Increasing the number of sharks that are harvested in this manner may have negative ecological impacts on shark populations.

Comment 4: NMFS should consider making video copies of the shark identification workshops, so that those who don't have the money to travel may watch the presentation?

Response: The Agency may consider alternative methods for shark dealers to renew their shark identification certificates as long as the original objective of the identification workshops are met. Alternative methods may include, but are not limited to, renewing identification certificates via the internet.

Comment 5: NMFS should manage all fish caught on BLL gear collectively, including grouper and tilefish. When I fish for sharks, I cannot keep snapper, yet we have a combined fishery. These should not be managed separately.

Response: The HMS Management Division is responsible for managing Atlantic sharks, tunas, billfish, and swordfish. Currently, grouper and tilefish are managed by Fishery Management Councils depending on the specific region. The Agency may consider more cooperative management initiatives in the future, as necessary.

Comment 6: Will shark fishing be closed until this Amendment is implemented?

Response: Fishing for large coastal sharks will be closed through the second trimester. A final rule describing the seasons and quota for the first and second trimester of 2008 was published in the Federal Register on November 29, 2007 (72 FR 67580).

Comment 7: NMFS needs to realize that fishermen are still going to go fishing for other species year-round. As a result, fishermen are going to end up killing sharks and discarding them dead. Another fishery is going to get more pressure as a result of these measures because shark fishermen aren't going to stop fishing.

Response: The Agency understands that participants in the shark fishery also participate in numerous other fisheries. Reductions in fishing mortality that is necessary

in this amendment would likely result in fishing effort shifting from the shark fishery to other fisheries in which participants maintain permits. Reduced retention limits and the fact that sandbar sharks would only be landed in the shark research fishery are expected to result in trips targeting other species. The Agency has devised retention limits and seasons such that fishermen targeting other non-shark species would be able to possess a limited number of non-sandbar LCS incidentally, minimizing the need to discard sharks dead.

Comment 8: NMFS should clarify what the gear limitations within the shark research fishery are and whether or not participants would be able to possess sandbar sharks if they have an observer onboard.

Response: Gear limitations within the shark research fishery would depend on annual research objectives. An objective of the shark research fishery is to continue to collect fishery-dependant data that reflects how the fishery operated historically. Therefore, BLL gear would likely be the predominant gear deployed. However, research objectives might also require participants to deploy alternative gear types to discern their feasibility and impacts on target and non-target catch. Only vessels participating in the research fishery would be able to possess sandbar sharks, and these vessels would have 100-percent observer coverage.

Comment 9: NMFS should not require fishermen to fill out a logbook when they only use dealer data. Instead of logbooks, NMFS should use carbon copies of trip tickets that are submitted to dealers.

Response: NMFS uses logbook data in addition to data collected from dealer reports. The draft Amendment 2 used logbook data to devise quotas for non-sandbar LCS. Logbooks provide vessel specific landings and effort data that are not reflected in shark dealer data. Sharks dealer data are used for quota monitoring and stock assessments.

Comment 10: NMFS should consider reducing soak time as a means of reducing the number sandbar shark dead discards.

Response: NMFS has examined the regulation of soak times to reduce fishing mortality and dead discards, however, the Agency found that it would be extremely difficult to monitor and enforce soak times.

Comment 11: NMFS should consider placing observers on all vessels and letting all fishermen continue to fish for sharks. That is how the Agency will get accurate data.

Response: NMFS is requiring that observers are present on all trips within the shark research fishery. A limited number of vessels selected to participate in the research fishery will continue to be able to fish for sharks, including sandbar sharks, subject to available quota. NMFS is also attempting to maintain adequate observer coverage outside the research fishery.

Comment 12: These measures will cause a large increase in dead discards, which equals wasted fish and wasted money.

Response: The management measures included in this amendment would effectively create an incidental fishery for sharks. The allowance for incidental landings and seasons that are open longer than they have been historically should minimize a large increase in dead discards from occurring. Dead discards could potentially increase if there were a reduced retention limit or if the shark season were closed for extensive periods, during which, all sharks would be discarded at sea.

Comment 13: NMFS should consider physically enhancing habitat to protect these species.

Response: Habitat enhancement does not address removal of sharks. Existing fishing mortality levels for sandbar and dusky sharks indicate that these species are experiencing overfishing and that the stocks have been overfished. Habitat enhancement was not considered because, in isolation, it does not address overfishing or rebuilding overfished stocks.

Comment 14: NMFS should require shark fishermen to take the shark dealer identification course.

Response: The public is welcome to attend the shark identification courses provided by NMFS. It is currently voluntary for shark fisherman to participate in shark identification courses. The Agency wants to ensure that shark dealers are aware of how to properly identify sharks because NMFS uses information from shark dealer reports is used to monitor the quota during the fishing season. Further, shark dealer reports play a critical role in conducting stock assessments. The Agency may consider expanding the groups of participants required to complete these workshops in the future.

Comment 15: The Magnuson-Stevens Act says to rebuild overfished stocks by 2012. NMFS should not use rebuilding schedules that require hundreds of years.

Response: Longer rebuilding periods are allowed under NS1 of Magnuson-Stevens Act when the following conditions specified in the NS1 Guidelines are met, which is the case with the species that are being rebuild in this amendment. The regulatory text at 50 CFR 600.310 (e)(4)(ii)(B)(3) states:

“[i]f the lower limit is 10 years or greater, then the specified time period for rebuilding may be adjusted upward to the extent warranted by the needs of fishing communities....except that no such upward adjustment can exceed the rebuilding period calculated in the absence of fishing mortality, plus one mean generation time or equivalent period based on the species’ life-history characteristics.”

Comment 16: NMFS should not require the public to attend identification workshops for sharks when shark fishing will essentially be banned.

Response: While shark fishing will be substantially reduced under this Amendment, there will still be incidentally caught sharks. Accurate shark identification will be important for gather information for future management.

Comment 17: Fishermen should be allowed to keep dead dusky sharks on haulback because discarding dead sharks is a waste.

Response: Dusky sharks are a prohibited species that must be released. NMFS has determined that dusky sharks are a prohibited species because of their life history is not conducive to commercial or recreational fisheries targeting them. Dusky sharks are late-maturing and have very few offspring. Further, these species do not have high post release survival on longline gear. NMFS continues to discourage fishermen from targeting dusky sharks because the recent stock assessment indicates that dusky sharks are overfished and experiencing overfishing despite being listed as a prohibited species since 2000.

Comment 18: NMFS needs to consider an exit strategy in case things don't work out as planned in the amendment.

Response: NMFS believes that this Amendment allows for sufficient flexibility to make adjustments as conditions may change in the fishery. Furthermore, regulations and constantly being reviewed for their utility and whether or not they are meeting their stated objectives. Additional regulations are expected as new stock assessments become available.

Comment 19: NMFS needs to improve international management with Mexico to manage sharks throughout their range.

Response: NMFS is currently working through the appropriate international foras to improve shark management in Mexico.

Comment 20: NMFS should consider adding a "use it or lose it" requirement on shark permits.

Response: Measures requiring shark fishermen to demonstrate landings history or risk losing their commercial shark fishing permit were not considered in this amendment. The adding of a "use it or lose it" condition on shark permits may actually result in increased pressure on sharks if holders of latent permits are compelled to use their permits sufficiently to avoid losing them in the future.

Comment 21: There is an inconsistency in the Draft EIS, Chapter 3 page 16. This presents state regulations, and fails to mention that long line gear is also prohibited in Georgia's state waters. Additionally, Georgia's Small Shark Composite should have the acronym SSC, not SCS, which is the federal Small Coastal Sharks management group.

Response: These inconsistencies have been addressed in the Final EIS.

Comment 22: There is new scientific evidence that oceanic whitetip sharks have declined.

Response: NMFS has not conducted a stock assessment for oceanic whitetips. NMFS will continue to work with international partners and ICCAT towards more species-specific assessments for pelagic sharks. Data may be a limiting factor, however, as there are limited landings data for oceanic whitetip sharks. To date, ICCAT has completed assessments for blue and shortfin mako sharks. There is scant data available on oceanic whitetip landings.

Comment 23: The Draft EIS does little to address bycatch of protected species aside from the suggestion that the preferred alternative may provide a mechanism to conduct the field trials necessary to appropriately assess the efficacy of circle hooks for reducing bycatch and post-hooking mortality of sea turtles in the BLL fishery. While both the pelagic and BLL fisheries are required to carry tools to remove gear from turtles before they are released, there are no performance goals for removing gear or a requirement to use circle hooks for bycatch of protected species.

Response: NMFS may consider additional management measures for reducing bycatch in the future. The Southeast Regional Office of Protected Resources Division is preparing a new Biological Opinion (BiOp) regarding the proposed actions under Amendment 2 to the Consolidated HMS FMP, which is expected to be completed by Spring of 2008 and before the release of the final rule. The last consultation on HMS shark fisheries resulted in an October 29, 2003 BiOp (NMFS, 2003) which concluded the proposed action was likely to adversely affect, but not likely to jeopardize the continued existence of, green, Kemp's ridley, leatherback, and loggerhead sea turtles and smalltooth sawfish. The opinion also concluded that marine mammals, the Gulf of Maine Atlantic salmon DPS, shortnose sturgeon, Gulf sturgeon, and right whale critical habitat were not likely to be adversely affected by the action. HMS plans to implement Amendment 2 to the Consolidated HMS FMP consistent with any recommendations in the upcoming BiOp.

Comment 24: If Atlantic and Gulf of Mexico fisheries are to continue, 100-percent observer coverage should be required.

Response: In 2007 and 2008, the Agency is implementing 100-percent observer coverage for vessels operating in the Gulf of Mexico with pelagic longline gear. Outside of this period, a statistically significant level of observer coverage will be used that is consistent with relevant Biological Opinions and other factors.

Comment 25: Deepwater sharks need protection. This group of sharks is simply too vulnerable to sustain fisheries so NMFS should prevent the development of fisheries before any fishermen invest in them. The deep water shark complex needs attention and it was a major mistake to remove deep water sharks from the management unit as was done in Amendment 1 and it should not be repeated in this Amendment through benign neglect.

Response: Deepwater sharks were previously removed from the management unit in Amendment 1 to the 1999 FMP. There are no fisheries targeting deepwater sharks and no data from fisheries that catch deepwater sharks as bycatch. The referenced changes clarify the regulations by linking the definition of “shark” more directly to the definition of the shark “management unit.” The only regulation prior to this time (2003) was the ban on shark finning, however, this was addressed in the Shark Finning Prohibition Act of 2000. NMFS will continue to collect information on deepwater sharks and may add them to the management unit or implement additional management measures to protect them in the future.

Comment 26: NMFS claims that dusky bycatch will decrease, however, the species will nonetheless be subject to an increased non-sandbar LCS retention limit. This means that the actual catch of dusky sharks is not likely to significantly decrease. Catch of dusky sharks must be significantly reduced in order for the species’ population to rebuild.

Response: Unlike the sandbar shark assessment, which recommended a specific TAC, or the blacktip stock assessments, which recommended specific catch levels, the dusky shark assessment did not give specific mortality targets. In addition, even if NMFS stopped all shark fishing in the Atlantic, dusky sharks would still be caught as bycatch in bottom longline and gillnet fisheries targeting other non-shark species. NMFS has taken a precautionary approach already by placing this species on the prohibited species list in 2000, however, discards continue. NMFS estimated a reduction in dusky mortality as a result of sandbar and non-sandbar LCS management actions. Based on the reduced quotas and trip limits, NMFS estimates that dusky shark mortality would be reduced from 33.1 mt dw to 9.1 mt dw per year. This is a 73-percent reduction in mortality compared to the status quo, and should afford dusky sharks more protection compared to the status quo.

Comment 27: The proposed rule does not offer protection for Small Coastal Sharks (SCS).

Response: NMFS is planning to address SCS in a future FMP amendment based on the 2007 SCS stock assessment.

Comment 28: NMFS should consider impacts of gear (longline, gillnet) on essential fish habitat and coral reefs.

Response: NMFS is currently developing a draft Amendment 1 to the Consolidated Atlantic HMS FMP to address essential fish habitat issues, including gear impacts on HMS and non-HMS habitat.

Comment 29: Is a “suite” a new concept or term for alternatives? The suite format is very effective.

Response: The term “suite” is used here to group regulatory alternatives created to address the objective of a rulemaking. The suite concept is used to help facilitate the communication of logical groupings of potential management measures that could be

used in conjunction to address the objectives of this rulemaking. The suite approach also allows for a more holistic analysis of the overall benefits and costs associated with the major regulatory alternatives considered. For example, the specific quotas implemented in this amendment would also need to correspond to modified retention limits, reporting requirements, and regions.

Comment 30: All commercial fish profiteers should be banned from catching any sharks at any time.

Response: The Agency manages commercial fisheries for authorized species in the Exclusive Economic Zone of the United States. Alternative suite 5 included measures that would have closed all shark fisheries. This alternative suite is not preferred because of the significant economic impacts it would have elicited and the fact that all sharks would have to be discarded, often dead.

Appendix D References

- Carlson, J.K. and D. M. Bethea. 2007. Catch and bycatch in the shark gillnet fishery: 2005-2006. NOAA Technical Memorandum NMFS-SEFSC-552, 26 p.
- Ingram, W., T. Henwood, M. Grace, L. Jones, W. Driggers, and K. Mitchell. 2005. Catch rates, distribution and size composition of large coastal sharks collected during NOAA Fisheries Bottom Longline Surveys from the U.S. Gulf of Mexico and U.S. Atlantic Ocean. LCS05-06-DW-27, 62 pp.
- MRAG, Americas, Inc., and M. Jepson. 2008. Updated Profiles for HMS Dependant Fishing Communities: Social Impact Assessment Services for HMS Fishing Communities. Solicitation Number: DG133F06RQ0381, 84, pp.
- NMFS. 2003. Endangered Species Act Section 7 Consultation: Biological Opinion on the continued operation of Atlantic shark fisheries (commercial shark bottom longline and drift gillnet fisheries and recreational shark fisheries) under the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (HMS FMP) and the proposed Rule for Draft Amendment 1 to the HMS FMP, July 2003. NMFS, Southeast Regional Office, Protected Resources Division, I.D. No. F/SER/2003/00953. 65 pp. + apps.