

**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****50 CFR Part 635**

[Docket No. 110831548–3536–02]

RIN 0648–BB29

**Highly Migratory Species; Atlantic Shark Management Measures; Amendment 5a**

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

**ACTION:** Final rule; fishery closure.

**SUMMARY:** NMFS publishes this final rule implementing the Final Amendment 5a to the 2006 Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP). In developing Amendment 5a to the 2006 Consolidated HMS FMP, we examined a full range of management alternatives to maintain rebuilding of sandbar sharks; end overfishing and rebuild scalloped hammerhead and Atlantic blacknose sharks; and establish a total allowable catch (TAC) and commercial quota and recreational measures for Gulf of Mexico blacknose and blacktip sharks, consistent with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), and other applicable laws. This final rule implements the final conservation and management measures in Amendment 5a to the 2006 Consolidated HMS FMP for sandbar, scalloped hammerhead, blacknose, and Gulf of Mexico blacktip sharks. This final rule also announces the revised 2013 annual regional quotas for aggregated large coastal sharks (LCS), hammerhead, Gulf of Mexico blacktip, blacknose, and non-blacknose small coastal sharks (SCS). These changes could affect all commercial and recreational fishermen who fish for sharks in the Atlantic Ocean, the Gulf of Mexico, and the Caribbean Sea.

**DATES:** This final rule and revised annual quotas are effective on July 3, 2013, except for the amendments to §§ 635.5, 635.20, 635.21, and 635.22, which are effective August 2, 2013. The commercial Gulf of Mexico blacktip shark management group is closed effective 11:30 p.m. local time July 7, 2013, until the end of the 2013 fishing season on December 31, 2013 or if NMFS announces, via a notice in the **Federal Register**, that additional quota is available and the season is reopened.

**ADDRESSES:** Copies of the Final Amendment 5a to the 2006 Consolidated HMS FMP, including the Final Environmental Impact Statement (FEIS), the latest shark stock assessments, and other documents relevant to this rule are available from the HMS Management Division Web site at <http://www.nmfs.noaa.gov/sfa/hms/>.

**FOR FURTHER INFORMATION CONTACT:** Peter Cooper, Guý DuBeck, or Karyl Brewster-Geisz at 301–427–8503.

**SUPPLEMENTARY INFORMATION:** Atlantic tunas and swordfish are managed under the dual authority of the Magnuson-Stevens Act and the Atlantic Tunas Conventions Act (ATCA), which authorizes the Secretary of Commerce (Secretary) to promulgate regulations as may be necessary and appropriate to implement recommendations of the International Commission for the Conservation of Atlantic Tunas (ICCAT). Federal Atlantic shark fisheries are managed under the authority of the Magnuson-Stevens Act. The authority to issue regulations under the Magnuson-Stevens Act and ATCA has been delegated from the Secretary to the Assistant Administrator for Fisheries, NOAA (AA). On May 28, 1999, NMFS published in the **Federal Register** (64 FR 29090) final regulations, effective July 1, 1999, implementing the FMP for Atlantic Tunas, Swordfish, and Sharks (1999 FMP). On October 2, 2006, NMFS published in the **Federal Register** (71 FR 58058) final regulations, effective November 1, 2006, implementing the 2006 Consolidated HMS FMP, which details the management measures for Atlantic HMS fisheries, including the Atlantic shark fisheries.

**Background**

A brief summary of the background of this final action is provided below. Complete details of what was proposed and the alternatives considered are described in Draft Amendment 5 to the 2006 Consolidated HMS FMP and its proposed rule (77 FR 70552, November 26, 2012). Those documents are incorporated by reference and their description of management and conservation measures considered are not repeated here. Additional information regarding Atlantic HMS management can be found in the Final Environmental Impact Statement (FEIS) for Amendment 5a to the 2006 Consolidated HMS FMP, the 2006 Consolidated HMS FMP and its amendments, the annual HMS Stock Assessment and Fishery Evaluation (SAFE) Reports, and online at <http://www.nmfs.noaa.gov/sfa/hms/>. The comments received on Draft

Amendment 5 and its proposed rule, and our responses to those comments, are summarized below in the section labeled “Response to Comments.”

On April 28, 2011, we made the determination that scalloped hammerhead sharks were overfished and experiencing overfishing (76 FR 23794). Following this determination, on October 7, 2011, we published a notice announcing our intent to prepare Amendment 5 to the 2006 Consolidated HMS FMP with an Environmental Impact Statement in accordance with the requirements of the National Environmental Policy Act (76 FR 62331). We made stock status determinations for sandbar, dusky, and blacknose sharks based on the results of the Southeast Data, Assessment, and Review (SEDAR) 21 process. Determinations in the October 2011 notice included that sandbar sharks are still overfished, but no longer experiencing overfishing, and that dusky sharks are still overfished and still experiencing overfishing (i.e., their stock status has not changed). The October 2011 notice also acknowledged that there are two stocks of blacknose sharks, the Atlantic blacknose shark stock and the Gulf of Mexico blacknose shark stock. The Atlantic blacknose shark stock is overfished and experiencing overfishing, and the Gulf of Mexico blacknose shark stock status is unknown.

We published a **Federal Register** notice on May 29, 2012 (77 FR 31562) notifying the public that we were considering the addition of Gulf of Mexico blacktip sharks to Amendment 5 to the 2006 Consolidated HMS FMP. This addition was proposed because Gulf of Mexico blacktip sharks were undergoing a stock assessment as part of the SEDAR 29 process, and that process would be completed before Amendment 5 to the 2006 Consolidated HMS FMP was finalized. Therefore, we determined that the addition of Gulf of Mexico blacktip sharks to Amendment 5 to the 2006 Consolidated HMS FMP would allow us to address new scientific information in the timeliest manner and facilitate administrative efficiency by optimizing our resources. We also expected that this addition would provide better clarity and communicate to the public any possible impacts of the rulemaking on shark fisheries by combining potential management measures resulting from recent shark stock assessments into fewer rulemakings. Since publication of the **Federal Register** notice announcing our intent to consider the addition of Gulf of Mexico blacktip sharks in Amendment 5 to the 2006 Consolidated

HMS FMP, we accepted the results of the stock assessment as final. As explained in the proposed rule, the stock assessment indicates that the Gulf of Mexico blacktip shark stock is not overfished and overfishing is not occurring.

Based on comments received during scoping, on the Predraft (an informal document that is shared with the HMS Advisory Panel and the public to obtain additional information and input from constituents on potential alternatives prior to development of the formal DEIS and proposed rule), and the addition of Gulf of Mexico blacktip sharks to this action, we determined the scope of significant issues of concern that would be addressed in Amendment 5 to the 2006 Consolidated HMS FMP. The Notice of Availability of the DEIS for Amendment 5 to the 2006 Consolidated HMS FMP and the proposed rule published in the **Federal Register** on December 7, 2012 (77 FR 73029), and November 26, 2012 (77 FR 70552), respectively. The public comment period ended on February 12, 2013.

During the comment period, we received numerous comments on the proposed dusky shark measures regarding the data sources used and the analyses of these data. We also received many comments requesting consideration of approaches to dusky shark fishery management that were significantly different from those we proposed and analyzed in the Amendment 5 proposed rule and DEIS. For example, commenters suggested exemptions to the proposed recreational minimum size increase that would protect dusky sharks but still allow landings of other sharks—such as blacktip sharks or “blue” sharks such as shortfin mako and thresher sharks—and other commenters suggested implementing gear restrictions instead of additional pelagic longline closures.

After reviewing all of the comments received, we concluded that further analyses are needed for dusky shark measures. In order to ensure that the other shark measures are finalized as expeditiously as possible, we decided to conduct additional dusky shark analyses in a separate proposed action, which will be referred to as “Amendment 5b to the 2006 Consolidated HMS FMP” (See 78 FR 24148; April 24, 2013). Comments received on the dusky shark portions of the November 2012 proposed rule will be considered in that action and there will be a comment period for the new 5b proposed rule. This current action implements Amendment 5a to the 2006 Consolidated HMS FMP and finalizes other shark measures from the

November 2012 proposed rule needed to maintain rebuilding of sandbar sharks; end overfishing and rebuild scalloped hammerhead and Atlantic blacknose sharks; and establish a total allowable catch (TAC) and commercial quota and recreational measures for Gulf of Mexico blacknose and blacktip sharks.

We prepared a FEIS that discussed the direct, indirect, and cumulative impacts on the quality of the human environment as a result of the preferred management measures in Amendment 5a to the 2006 Consolidated HMS FMP. The FEIS, including the preferred management measures in Amendment 5a to the 2006 Consolidated HMS FMP, was made available on April 26, 2013 (78 FR 24743). On June 7, 2013, the Assistant Administrator for NOAA signed a Record of Decision (ROD) adopting Final Amendment 5a to the 2006 Consolidated HMS FMP. A copy of the FEIS, including final Amendment 5a to the 2006 Consolidated HMS FMP, is available from the HMS Management Division (see **ADDRESSES**). In brief, the final management measures implemented in this rule are to: establish a new hammerhead shark (great, scalloped, and smooth) management group with regional quotas; implement a Gulf of Mexico blacktip shark annual quota; establish aggregated LCS management groups with regional quotas; implement regional blacknose shark annual quotas; establish non-blacknose SCS annual quotas by region; establish regional quota linkages; and increase the recreational size limit for all hammerhead sharks. As described in the FEIS and the responses to comments below, we made several changes to the preferred alternatives between the DEIS and FEIS, based in part on public comments. Corresponding changes were made, where appropriate, in Final Amendment 5a to the 2006 Consolidated HMS FMP and this final rule. The specific changes are described below in the section titled “Changes from the Proposed Rule.”

In addition to the management measures in this final action, we are also making several minor changes in the regulations for corrective or clarification purposes. These changes were in the proposed rule and we received no comments regarding them. These final changes are not expected to have any ecological or economic impacts and do not impose any new requirements on the regulated community or require fishermen to change their actions to comply with the regulations. These administrative changes are: (1) The addition of a definition of “fork length”; (2) an update to the permit Web page

and name of the reporting system at § 635.5(c)(1); (3) the deletion of incorrect text referring to swordfish permits in a sentence regarding tunas at § 635.20(a); (4) a correction changing the term “NED closed area” to “NED restricted area” at § 635.21(c)(5)(iii)(C); (5) the removal of smoothhound shark language at § 635.24(a)(7) that incorrectly remained after the final rule (76 FR 70064; November 10, 2011) delaying the effectiveness of the smoothhound measures indefinitely; (6) in Table 1 of Appendix A, a correction to the scientific name of Atlantic angel sharks along with a removal of the headings “ridgeback” and “non-ridgeback sharks” because, with the changes in this rule, those terms are no longer necessary as defined and are not used at this time; and (7) the removal of language at § 635.27(b)(1)(iv)(C) that required landings reported by dealers located in certain areas to be counted against the regional quota where the dealer is located because measures recently put in place in the electronic dealer reporting rule (77 FR 47303; August 8, 2012) allow dealers to report and to count landed fish against the appropriate quota of the region where the fish was caught. Additionally, to accommodate the changes being finalized in this rulemaking and to more clearly organize the regulations, § 635.27(b) has been reorganized. Changes to the operative text are minimal and include: removing language and sentences that refer to text that will expire before this rule is finalized and removing terms such as “non-sandbar LCS” that will no longer be relevant because of the changes in this rule.

### Response to Comments

We received 115 written comments from fishermen, states, and other interested parties on the proposed rule during the comment period in writing or at public hearings. All written comments can be found at <http://www.regulations.gov/>. As described above, we separated out all of the dusky shark management measures and comments from this rulemaking. All comments received on the dusky shark measures will be addressed in Amendment 5b to the 2006 Consolidated HMS FMP. The comments received resulted in changes, as described below in the Changes from the Proposed Rule section. Significant comments are summarized below by major topic together with our responses. There are eight major issues: stock assessments, general support for measures in DEIS, TACs and quotas, quota linkages, recreational issues,

economic impacts, concerns regarding the DEIS, and general comments.

### A. Stock Assessments

*Comment 1:* We received a variety of comments on the SEDAR stock assessment process and procedures. One commenter wanted an explanation of how NMFS conducts a stock assessment, while another commenter preferred that NMFS conduct a SEDAR stock assessment on all shark species. Another commenter wanted us to consider and address sources of mortality of sharks in other commercial fisheries.

*Response:* Domestic shark stock assessments are generally conducted through the SEDAR process, in which NMFS participates. This process is also used by the South Atlantic, Gulf of Mexico, and Caribbean Fishery Management Councils and is designed to provide transparency throughout the stock assessment process. Generally, SEDAR stock assessments have three stages. Meetings in these stages may be face-to-face or by webinar or conference call. All meetings are open to the public. The first stage of the assessment process focuses on the available data. During this stage, fisheries monitoring programs, life history and other biological data, catch data, and indices of abundance from both fishery-independent (e.g., scientific surveys) and fishery-dependent (e.g., fishermen, dealer, and observer reports) sources are reviewed and compiled. The end result of this stage is a summary of all sources of data and relevant research, including all sources of potential mortality for the shark species in other commercial fisheries.

The second stage focuses on the assessment models themselves. During this stage, the participants discuss the available models, how the data fit the models, and any changes needed. The end result of this stage is a complete assessment model and a preliminary determination of the status of the stock.

The third stage is the peer review. During this part, scientists who were not participants in either previous stage and who do not have any conflict of interest review the data and the models to determine if they are appropriate and were conducted correctly. During this stage, the peer reviewers may ask the assessment scientists to re-run models or include specific sensitivity runs to check how the models work. This peer review stage may be done in a public forum or, as was done with the Gulf of Mexico blacktip stock assessment, may be done via a paper review. All reports from all stages of the process are

available online at <http://www.sefsc.noaa.gov/sedar/>.

The SEDAR process can take several months to over a year depending on whether the species has been assessed before, if a species needs a full review of a previous assessment, or if the assessment is more of an update to previous assessments. Because the process takes so long and because of the large number of shark stocks that need to be assessed, there are times where we have reviewed stock assessments that were completed and peer reviewed outside of the SEDAR process and have determined the assessment to be appropriate for management. We have done that for both porbeagle and scalloped hammerhead sharks. Additionally, there are some shark stocks that are assessed internationally via the process established by ICCAT. In all cases, we ensure the data and models used are appropriate, all sources of mortality are considered, and that the end result constitutes the best available science, consistent with National Standard 2 of the Magnuson-Stevens Act and other requirements.

*Comment 2:* We received a comment that the non-sandbar LCS management group is not overfished with no overfishing occurring in the mid-Atlantic region.

*Response:* The LCS management group, including sandbar sharks, was last assessed as a whole in 2006 as part of the SEDAR 11 process. At that time, the peer reviewers found that while the data and assessment model were appropriate, the assessment as a whole was unlikely to produce effective management advice given the potential for conflicting information from the various species components in the catch and abundance index data. Based on this, we determined the status of the LCS management group to be unknown. Therefore, we do not know whether the non-sandbar LCS management group is overfished or if overfishing is occurring given the information currently available.

*Comment 3:* We received a comment regarding the stock determination for Gulf of Mexico blacktip sharks. The commenter noted that they disagree with the determination that the stock is not overfished and that overfishing is not occurring as they believe the fish population has been dramatically reduced and has not increased over time. In addition, the commenter wanted us to provide background on the data for the past 40 years.

*Response:* The best available scientific data and a rigorous SEDAR stock assessment process support the conclusion that Gulf of Mexico blacktip

sharks are not overfished ( $SSF_{2010}/SSF_{MSY}=2.00-2.78$ ) with no overfishing occurring ( $F_{2010}/F_{MSY}=0.05-0.27$ ). The independent review panel determined that the data used in the stock assessment were considered the best available. They also determined that appropriate standard assessment methods based on general production models and on age-structured modeling were used to derive management benchmarks given the data available. The stock assessment scientists showed in the post-review updates and projections document that process error in recruitment was fully considered and that recruitment in the model was reasonable. They also showed that the low value of  $F_{MSY}$  is consistent with what is expected from the biology of sharks, and that of the three indices mentioned by the reviewer that showed a decline, two show an increase in the terminal year of 2010. Therefore, the stock assessment scientists concluded that the stock assessment result of no overfishing is warranted. Thus, the commenters' contention that the stock is overfished with overfishing occurring is unfounded as is the contention that the GOM blacktip shark population has "been dramatically reduced." In the SEDAR 29 stock assessment, background data for some catch indices were provided that went back as far as 1964. Commenters can access this data and additional background data at the SEDAR 29 stock assessment Web site at: <http://www.sefsc.noaa.gov/sedar/>.

*Comment 4:* Commenters asked us to schedule the Atlantic blacktip shark stock assessment in 2013, as the Gulf of Mexico blacktip shark assessment was completed in 2012. They consider the Atlantic blacktip assessment to be "more important" than the non-blacknose SCS (Atlantic sharpnose, bonnethead, and finetooth) assessments.

*Response:* We aim to conduct a number of shark stock assessments every year and to regularly reassess the stocks. The number of species that can be assessed each year depends on whether assessments are establishing baselines or are only updates to previous assessments. Assessments also depend on ensuring there is data available for a particular species; not all shark species or stocks have enough data to assess. We try to assess shark species as often as possible, particularly for primary commercial and recreational species, and will aim to conduct an Atlantic blacktip shark assessment as soon as practicable.

*Comment 5:* NMFS should perform a SEDAR stock assessment on all of the hammerhead (scalloped, great, and smooth) shark species. The Hayes *et al.*

(2009) scalloped hammerhead shark stock assessment was not a complete assessment and included modeling assumptions that were driven by flawed recreational harvest data. For smooth and great hammerhead sharks, we need a sufficient assessment of these species, as the impacts of the proposed hammerhead shark measures are only based on scalloped hammerhead sharks.

*Response:* The Hayes *et al.* (2009) stock assessment utilized a surplus production model, an approach commonly used in data poor scenarios, and incorporated commercial and recreational landings, fisheries dependent data, and fisheries independent data from NMFS observer programs and scientific surveys. We reviewed this paper and concluded that: the assessment is complete; the assessment is an improvement over a 2008 aggregated species assessment for hammerhead sharks; and the assessment is appropriate for U.S. management decisions (76 FR 23794; April 28, 2011). Based on the results of this paper, we determined that scalloped hammerhead sharks were overfished and experiencing overfishing. Scalloped hammerhead sharks are currently a part of the non-sandbar LCS management group, and this is the first assessment specific to scalloped hammerhead sharks. We intend to conduct SEDAR stock assessments on scalloped, smooth, and great hammerhead sharks in the future, as soon as practicable given timing, resource limits, and data availability.

*Comment 6:* NMFS should analyze the seasonality of hammerhead shark catches to avoid closing management groups with quota linkages in the Gulf of Mexico region.

*Response:* We analyzed a few ways to ensure fishermen can fully harvest the aggregated LCS, hammerhead, and blacktip shark quotas in the Gulf of Mexico region. Due to the short and variable shark fishing season lengths in the Gulf of Mexico region, the seasonality of hammerhead catches is not definitive. In 2010, the non-sandbar LCS fishery was only open for six weeks, while the season remained open for approximately five months in 2011 and 2012. In this amendment, we analyzed the catch composition on a per trip basis. We noticed that the catch composition varied. There were both trips that caught and landed primarily blacktip sharks and trips that caught and landed a mix of aggregated LCS and hammerhead sharks. The aggregated LCS and hammerhead sharks are caught in small amounts on trips targeting Gulf of Mexico blacktip sharks, so this should not affect the mortality rates of

hammerhead sharks. In addition, the blacktip shark and aggregated LCS quotas will be set equal to average annual landings from 2008–2011. The preferred Gulf of Mexico hammerhead shark quota will be set using the TAC from the Hayes *et al.* (2009) stock assessment after accounting for all sources of mortality, but the results are quotas that are slightly higher in both regions than average annual landings from 2008–2011. If fishing continues in a fashion similar to the years 2008–2011, all three quotas in this region should fill at about the same rate. As long as the quotas do fill at about the same rate, significant additional mortality of aggregate LCS and hammerhead sharks should not occur after these management groups close. Dead discards of scalloped hammerhead sharks have already been factored into the preferred hammerhead shark quota.

Based on this information, we decided, in preferred Alternative Suite A6, to link the Gulf of Mexico regional quotas for aggregated LCS and hammerhead sharks while allowing the Gulf of Mexico blacktip shark management group to open and close independently. Closing the aggregated LCS management group when landings of hammerhead sharks reach, or are expected to reach, 80 percent of the hammerhead shark quota would prevent hammerhead sharks from being incidentally caught in the aggregated LCS fishery and the associated continued overfishing. Because the Gulf of Mexico blacktip management group would not necessarily close with the aggregated LCS and hammerhead shark management groups, there is the potential for incidental hammerhead mortality when fishing for blacktip sharks after the hammerhead shark management group has been closed. To address this concern, we will have the authority to close the blacktip shark management group before landings of blacktip sharks reach, or is expected to reach, 80 percent of the blacktip shark quota. This final action should allow fishermen to harvest as much of the Gulf of Mexico blacktip and aggregated LCS quotas as is possible without overfishing scalloped hammerhead sharks.

*Comment 7:* The State of Florida recommends NMFS coordinate with Regional Fishery Management Councils' Scientific and Statistical Committees (SSCs) to develop proper stock assessments with data poor or unassessed stocks (i.e. Gulf of Mexico blacknose and Atlantic blacktip sharks).

*Response:* As described above, we conduct most domestic shark stock assessments through the SEDAR process. This process is the same

process that the South Atlantic, Gulf of Mexico, and Caribbean Fishery Management Councils use to assess their stocks. The only difference between how the Councils treat stock assessments and how federally managed shark stock assessments are treated by NMFS is that once the stock assessment is complete at the SEDAR level, the Regional Fishery Management Councils have their SSC review each stock assessment. NMFS does not have its own SSC. Instead, the assessment is reviewed internally before being accepted. Thus, our shark stock assessments use essentially the same processes to address data poor or unassessed stocks as the Regional Fishery Management Councils.

*Comment 8:* Some commenters believe the recent NMFS stock assessments are incomplete due to lack of data, outdated data, and misguided assumptions. As an example, one commenter stated that NMFS assumes that Gulf of Mexico blacknose sharks needs rebuilding because the status of this species is unknown.

*Response:* As described above, we use the SEDAR process to conduct most domestic shark stock assessments. This process is a transparent one that includes meetings, webinars, and/or conference calls that are open to the public. All the working papers for SEDAR assessments along with the final reports are available online at <http://www.sefsc.noaa.gov/sedar/>. During the course of the assessment, the participants in the assessment carefully go through all the available data and any underlying assumptions regarding either the data or the models. The participants in the assessment are composed of both NMFS scientists as well as a mix of fishermen, academics, and environmentalists that are chosen from the members of the HMS SEDAR Pool. Consideration is given to each participant's expertise. The assessments themselves use the most up-to-date data available at the time the assessment is started. For example, if discussions about data begin in March of a particular year, the scientists may decide to use data from the previous year if that data has undergone a quality control check or the scientists may decide that the previous year's data would not be quality control checked and may rely on data from the year before instead. Because of the lengthy time in conducting an assessment (sometimes more than a year) and then incorporating the assessment results into management measures (this process can take two or more years depending on the action), it can seem as though the data the assessment relied on is out of

date. However, in our analyses of potential management measures in the FEIS, we use updated information where available even if that data was not included in the assessment model itself because it was not available at the time (e.g., 2011 commercial landings data). Thus, the assessment and the data upon which it relied remains the best scientific data available at this time, and we are required by National Standard 2 to utilize this information.

Regarding the specific comment about blacknose sharks, the SEDAR 21 blacknose shark stock assessment incorporated new landings and biological information that was not available for previous assessments. This was the first time blacknose sharks were assessed as two separate stocks. The scientists found that while the Atlantic blacknose assessment model appeared robust, the assessment model for the Gulf of Mexico stock did not fit some of the input data. Because of this lack of fit, the Review Panel did not accept the Gulf of Mexico blacknose stock assessment results. Therefore, we declared the status of the Gulf of Mexico blacknose shark stock as “unknown.” We would prefer to have a definitive status and will conduct a Gulf of Mexico blacknose shark stock assessment as soon as practicable given timing, resource limits, and data availability. In the meantime, the preferred Alternative Suite A6 caps Gulf of Mexico blacknose shark landings at current levels.

*Comment 9:* We received multiple comments on the issue of blacknose sharks caught in shrimp trawl nets. One commenter wanted NMFS to develop accountability measures in case the shrimp trawl fishery exceeds its blacknose shark allocation and to improve the quality of the best available science for future management decisions. Another commenter believes the SEDAR estimates of blacknose sharks being caught in shrimp trawl nets are incorrect, that the species is misidentified, and that we need to work with the Gulf of Mexico shrimpers to reduce shark bycatch.

*Response:* In this amendment, we are only implementing measures to reduce the landings and discards in Atlantic shark fisheries. Regulatory changes to the shrimp trawl fisheries in the South Atlantic and Gulf of Mexico regions are beyond the scope of this rulemaking and would be implemented through the Council process in those regions. At the blacknose shark stock assessment, we had several shrimp trawl industry scientists involved in estimating the number of blacknose sharks that are caught in shrimp trawl nets. Those scientists were instrumental in

reviewing the data and developing the models that ultimately were used to estimate the number of blacknose sharks caught in shrimp trawl nets. Additionally, since the first blacknose stock assessment in 2007, NMFS has been collecting species-specific shark data reporting from the shrimp trawl observer program. Thus, we feel the stock assessment estimates of blacknose sharks caught in shrimp trawls is appropriate and the best available science.

#### **B. General Support for Measures in the DEIS and Proposed Rule**

*Comment 10:* We received comments that generally supported the measures in Alternative Suite A2. Commenters liked the idea of regional hammerhead shark, aggregated LCS, and Gulf of Mexico blacktip shark TACs and quotas, the quota linkages in the Atlantic and Gulf of Mexico regions, and the move to more species-specific shark management. The State of Maryland said that they believed the Alternative Suite A2 measures for sandbar, scalloped hammerhead, and blacknose sharks were appropriate.

*Response:* Most of the management measures that commenters liked in Alternative Suite A2 in the DEIS are also in the preferred Alternative Suite A6 in the FEIS. One change between Alternative Suites A2 and A6 is the quota linkages between Gulf of Mexico hammerhead, aggregated LCS and blacktip sharks. Alternative Suite A2 links all three quotas, while Alternative Suite A6 only links the aggregated LCS and hammerhead quotas. In the final action, we prefer linking only the aggregated LCS and hammerhead shark quotas, and not the blacktip shark quota, for two reasons. First, because average landings of hammerhead sharks in the Gulf of Mexico from 2008–2011 are slightly less than the preferred hammerhead shark quota for the Gulf of Mexico, and the preferred aggregated LCS and blacktip shark quotas are calculated based on average landings, it is anticipated that all three quotas will be reached at similar points in time if fishing practices continue as they have since 2008. Second, when analyzing commercial shark fishery observer data in the Gulf of Mexico from 2008–2011, we noticed much lower interactions with hammerhead sharks on trips that were specifically targeting blacktip sharks than on trips that generally targeted sharks. On observed trips outside of the shark research fishery that specifically targeted blacktip sharks, interactions with hammerhead sharks and aggregated LCS was low, while on trips that generically targeted sharks,

hammerhead sharks and aggregated LCS had the highest interactions. Therefore, because recent average shark landings have been similar to preferred quotas and because the hammerhead shark and aggregated LCS catch is much higher on trips generally targeting shark than on trips specifically targeting blacktip sharks, we feel that it is appropriate to link the Gulf of Mexico aggregated LCS and hammerhead shark quotas and not link the Gulf of Mexico blacktip shark quota.

*Comment 11:* One commenter stated that the rule should be completed and implemented by April 2013 because the two-year rebuilding timeline for scalloped hammerhead sharks is in April. The commenter urged NMFS to not lose focus on ending overfishing for hammerhead, blacktip, and blacknose sharks.

*Response:* We understand the importance of implementing management plans that will rebuild stocks within 2 years of declaring them overfished as required by the Magnuson-Stevens Act. We have been working on a schedule to implement these measures within that deadline. As this action progressed, we realized we would not be able to implement final measures before the 2 year anniversary of declaring the scalloped hammerhead stock overfished with overfishing occurring. We worked, however, to implement the final action as soon as procedurally possible, and as close as possible to that deadline. This final action is designed to end overfishing of scalloped hammerhead and Atlantic blacknose sharks, consistent with the objective and need for this amendment. Gulf of Mexico blacktip sharks are not experiencing overfishing and this final action is designed to ensure that overfishing of that stock does not occur. While the status of the Atlantic blacktip shark is unknown, we determined that this final action would not cause overfishing.

#### **C. TACs and Quotas**

*Comment 12:* We received a comment that retention of sandbar sharks should be prohibited in all fisheries, including the shark research fishery. This commenter supported a prohibition rather than the current TAC that allows rebuilding after a long timeframe, in favor of a shorter rebuilding time.

*Response:* The latest sandbar shark stock assessment in SEDAR 21 found that, while the species is still overfished, overfishing is no longer occurring, and the species has a greater than 70 percent probability of rebuilding by 2070 with a greater than 50-percent probability of rebuilding by

2066 under current regulations and fishing pressure. Under no fishing, the species would likely rebuild by 2046; however, zero fishing pressure is difficult to achieve due to incidental catch. For this reason, a prohibition on sandbar shark retention would likely result in a rebuilding year later than 2046. Because the current TAC already provides a greater than 70-percent probability of rebuilding, and because overfishing is not occurring and the stock status is improving, maintaining the current TAC and rebuilding plan is fully consistent with the Magnuson-Stevens Act requirements and the National Standard Guidelines. The benefit of having a small, sustainable, well-regulated sandbar shark fishery outweighs the benefit of a shorter rebuilding timeframe. The small sandbar shark fishery, administered through the shark research fishery, allows commercial fishermen some access to the resource and also provides important data on the species. The latest stock assessment used information gathered from the shark research fishery, the absence of which would have reduced the confidence in assessment results. For these reasons, we prefer to continue with the rebuilding plan for sandbar sharks currently underway.

*Comment 13:* Some commenters stated that this amendment needs to provide additional regulations with regard to TACs for blue, porbeagle, or other sharks in the pelagic shark management group.

*Response:* Pelagic sharks are outside the scope of this rulemaking. As stated in the published Notice of Intent and the Purpose and Need section of the FEIS, this rulemaking addresses the recent stock assessments for scalloped hammerhead sharks, sandbar, blacknose sharks, and blacktip sharks.

*Comment 14:* Some commenters are concerned that regulations for sandbar, blacknose, scalloped hammerhead, and blacktip sharks force regulatory discards of some species and contribute to mortality that exceeds the TAC, causing overfishing.

*Response:* Regulations for sandbar, blacknose, scalloped hammerhead, and blacktip sharks are expressly designed to keep mortality below the TAC to end overfishing and rebuild, as necessary. Sandbar sharks are currently on a rebuilding plan, and the latest stock assessment confirms that current regulations will allow the species to rebuild within the required timeframe. The Atlantic blacknose shark assessment provided a TAC necessary to end overfishing and rebuild the stock. All sources of mortality were accounted

for when developing a commercial quota, so mortality is unlikely to exceed the established TAC. The Gulf of Mexico blacknose shark stock status is unknown; however, we considered all sources of mortality when calculating the Gulf of Mexico blacknose TAC and capped that commercial quota at recent commercial landings to keep total mortality from exceeding current levels. Scalloped hammerhead sharks are overfished with overfishing occurring and the latest stock assessment provided a TAC that would end overfishing and allow the stock to rebuild. All sources of mortality were accounted for when developing a scalloped hammerhead commercial quota, so mortality is unlikely to exceed the established TAC. The Gulf of Mexico blacktip shark stock is not overfished nor is it experiencing overfishing, and current mortality levels are sustainable.

Regulatory discards are a possibility for any of these species. The nature of regulations that provide an open season (when there is quota available) and a closed season (when the quota is closed) leaves the possibility that incidentally caught individuals will be discarded if the quota is closed. Many of the discarded fish are alive, but some will not be. Our concern over regulatory discards and additional mortality is one of the reasons we prefer quota linkages for some species in Alternative Suite A6. These regulatory discards are a source of mortality and we take them into consideration when developing commercial quotas within each species or management group's quota. For example, when developing the hammerhead management group quota, we took into account dead discard estimates from a variety of fisheries that interact with scalloped hammerhead sharks, including directed shark fisheries. This estimate, among other sources of mortality, was subtracted from the TAC to provide a sustainable commercial quota. See Chapter 2 of the FEIS for Amendment 5a to the 2006 Consolidated HMS FMP for more details of the quota calculations. We strive to prevent or minimize regulatory discards. If we are unable to eliminate dead discards, we account for this mortality to ensure no species or management group exceeds its TAC.

*Comment 15:* We received a comment that the preferred Gulf of Mexico blacknose shark quota of 2.0 mt dw is too low. The commenter is concerned that higher than expected catch levels or new entrants into the fishery could land too many blacknose sharks resulting in closing both the blacknose shark management group and the linked non-blacknose SCS management group. This

commenter requested an increase in the Gulf of Mexico blacknose quota to prevent the stock from becoming a "choke species" for non-blacknose SCS.

*Response:* The SEDAR 21 stock assessment for Gulf of Mexico blacknose sharks was not accepted by the review panel and was not accepted for management. Consequently, the stock status for Gulf of Mexico blacknose sharks is unknown. Under this final action, we would cap total mortality based on recent commercial landings, dead discards, and recreational landings. For 2011, commercial landings for Gulf of Mexico blacknose sharks were 2.0 mt dw. At this time, we do not have any information to support an increase beyond the 2011 commercial landings estimate.

Because the Gulf of Mexico blacknose shark quota is linked to the non-blacknose quota, both management groups will close when either quota is reached, or is expected to reach, 80 percent. The Gulf of Mexico blacknose shark quota in this final action is smaller than the non-blacknose SCS quota and would likely fill more quickly, closing the non-blacknose SCS quota before it had been filled (becoming what the commenter termed a "choke species"). However, the Gulf of Mexico blacknose shark quota in this final action is set equal to commercial landings since the implementation of Amendment 3 to the 2006 Consolidated HMS FMP (which established a separate blacknose quota and encouraged fishermen to avoid the species), excluding 2010 landings which were impacted by the Deepwater Horizon/BP oil spill fishing closures. Because the preferred quota is based on recent annual landings, it is likely that this quota would last most of the year if the fishery continues as it has. Consequently, it is unlikely that the Gulf of Mexico blacknose shark quota will result in a "choke species."

*Comment 16:* The Florida Fish and Wildlife Commission commented that the blacknose shark quota should be linked to the LCS and sandbar quotas, in addition to the non-blacknose SCS quota. While blacknose sharks are sometimes caught alongside non-blacknose SCS, the Commission stated that blacknose sharks are commonly caught in the LCS and snapper/grouper longline fisheries, especially in South Florida. These sources of mortality were not accounted for in the quota calculations. Additionally, LCS are often caught in the directed SCS fisheries when the LCS attempt to feed on the SCS already caught in the fishing gear (depredation).

*Response:* In both the Atlantic and Gulf of Mexico regions, all sources of blacknose shark mortality were accounted for in this final action, including other fisheries such as the LCS and snapper/grouper fisheries. In the Atlantic region, the TAC specified in the stock assessment was reduced by recreational landings, research set-asides, and dead discards to derive the commercial quota. These dead discards were estimated using gillnet and bottom longline observer data and were accounted for in this final action's quota calculations. The Gulf of Mexico TAC and quota were calculated in a slightly different way in this final action, but the dead discards were also accounted for from gillnet and bottom longline observer data.

LCS are sometimes caught in the directed SCS fishery, whether through depredation or conventional capture. In the context of this rulemaking, the only LCS species addressed is hammerhead sharks, the quota for which was calculated in this final action by taking the scalloped hammerhead shark TAC from the stock assessment and subtracting scalloped hammerhead shark recreational landings, research set-aside, and dead discards from the LCS and other fisheries. These dead discards were estimated from logbook data in the directed pelagic longline and bottom longline shark fisheries, gillnet observer program data, and the reef fish observer program. Therefore, dead discards of LCS in the directed SCS fisheries were accounted for when calculating the hammerhead shark quotas.

*Comment 17:* Some commenters do not support aggregating multiple species into management groups such as the LCS, SCS, and pelagic shark management groups.

*Response:* As more single-species stock assessments are conducted, we have been moving toward single-species management rather than group management where appropriate. Recent stock assessments that have allowed us to move to some single-species management include: sandbar sharks, Atlantic blacknose sharks, scalloped hammerhead sharks, Gulf of Mexico blacktip sharks, dusky sharks, and porbeagle sharks. At this time, we do not have accepted and approved single species assessments for Gulf of Mexico blacknose sharks or the remaining aggregated LCS species: Atlantic blacktip, silky, tiger, bull, lemon, spinner, nurse, and great and smooth hammerhead sharks. For SCS, we have single-species assessments for Atlantic sharpnose, finetooth, and bonnethead sharks, which indicate that these

species are not overfished nor are they experiencing overfishing. However, we manage these species under a single management group as these species co-occur in the SCS fishery. This simplifies quota tracking and management while minimizing the risk of unsustainable fishing occurring on one or more of the stocks. Additionally, some single-species regulations exist in the recreational fishery. Both Atlantic sharpnose and bonnethead sharks are exempt from the recreational minimum size limits and current regulations allow limited additional retention of these two species above the per vessel bag limit. For pelagic sharks, we have species-specific assessments for porbeagle, blue sharks, and shortfin mako sharks; however, international management for pelagic species complicates single-species management. There are no international quotas for these species or country-specific allocations. Porbeagle and blue sharks were last assessed by the ICCAT SCRS in 2012, which determined that porbeagle sharks were overfished but that overfishing has likely stopped and that blue sharks are neither overfished nor experiencing overfishing. Both of these species are managed under separate quotas. For shortfin mako sharks, we established conservation initiatives in Amendment 3 to the 2006 Consolidated HMS FMP after a 2008 ICCAT SCRS assessment indicated that the North Atlantic stock was experiencing overfishing and approaching an overfished status. These conservation initiatives included outreach and efforts to encourage live release of the species. Since then, a 2012 ICCAT SCRS assessment concluded that indications of potential overfishing shown in the 2008 stock assessment had diminished and that the current level of catches may be considered sustainable. Please visit [http://www.iccat.int/Documents/SCRS/ExecSum/SHK\\_EN.pdf](http://www.iccat.int/Documents/SCRS/ExecSum/SHK_EN.pdf) for more information.

*Comment 18:* Several commenters expressed support for establishing separate TACs for hammerhead sharks, Atlantic blacknose, Gulf of Mexico blacknose, and Gulf of Mexico blacktip sharks.

*Response:* We agree that establishing separate quotas and TACs for the two blacknose shark stocks and Gulf of Mexico blacktip sharks will rebuild overfished Atlantic blacknose and scalloped hammerhead sharks, provide additional protection for the Gulf of Mexico blacknose and blacktip stocks, and minimize socioeconomic impacts, consistent with the Magnuson-Stevens Act. For these reasons, we prefer these measures at this time.

*Comment 19:* Some commenters felt that Atlantic blacktip sharks should be separated from the LCS management group like Gulf of Mexico blacktip sharks.

*Response:* The peer review panel for the 2006 stock assessment for Atlantic blacktip sharks concluded that while the methods were scientifically sound, the assessment model did not provide reliable estimates of abundance, biomass, or exploitation rates. As a result, we determined the stock status of Atlantic blacktip sharks to be unknown (71 FR 65086; November 7, 2006). Unlike the situation for Gulf of Mexico blacknose sharks, where the status of the stock was declared to be unknown as a result of a peer review of the stock assessment, there is no previous stock assessment for blacktip sharks on which to appropriately base a species-specific TAC or quota. Therefore, because we had no new information to inform a separate quota or TAC, we decided to maintain Atlantic blacktip sharks in the aggregated LCS management group. When we have a peer reviewed and approved stock assessment for Atlantic blacktip sharks, we will reconsider this decision.

*Comment 20:* The State of Louisiana expressed concern that we conducted a SEDAR stock assessment and then used current landings for the TAC instead of the stock assessment results. In the Magnuson-Stevens Act, there is a mandate for NMFS to manage fisheries towards optimum yield, but the approach preferred in the DEIS does not address that mandate.

*Response:* Based on SEDAR 29, we made the determination that the Gulf of Mexico blacktip shark stock is not overfished and no overfishing is occurring. However, the SEDAR 29 process did not include the projections and the calculations needed to determine the acceptable biological catch during the stock assessment itself. Rather, the SEFSC calculated the projections after the stock assessment was peer reviewed. The stock assessment noted that current removal rates are sustainable and the subsequent projections, which were completed outside the SEDAR process, indicate that current removals are unlikely to lead to an overfished fish stock by 2040. The projections also indicate that higher levels of removal (those associated with an  $F_{TARGET}$  scenario) are unlikely to result in an overfished stock; however, the methodology for estimating  $F_{TARGET}$  is currently in development for sharks and has yet to be introduced and reviewed within the SEDAR process. Therefore, because the projections for blacktip sharks have not been peer

reviewed through the SEDAR process and as described in the preferred Alternative Suite A6 in the FEIS, we are establishing a TAC based on current sustainable levels of catch. The TAC based on current sustainable levels of catch will be 413.4 mt dw, the total of all of the sources of mortality (recreational landings, commercial discards, and research set-aside mortality) and the commercial quota. The commercial quota is calculated by taking the proportion of current Gulf of Mexico blacktip shark landings that make up the Gulf of Mexico non-sandbar LCS quota multiplied by the Gulf of Mexico non-sandbar LCS quota that will be in effect in 2013. This results in a commercial quota of 256.6 mt dw (565,700 lb dw).

*Comment 21:* We received comments that retention of lemon, tiger, scalloped hammerhead, and blacknose sharks, and any species without a stock assessment should be prohibited.

*Response:* Although some states have prohibited retention of these species, we have codified criteria that guide our decision whether to declare a species prohibited. The species must meet at least two of following four criteria for us to consider adding it to the prohibited species list:

- (1) Biological information indicates that the stock warrants protection.
- (2) Information indicates that the species is rarely encountered or observed caught in HMS fisheries.
- (3) Information indicates that the species is not commonly encountered or observed caught as bycatch in fishing operations for species other than HMS.
- (4) The species is difficult to distinguish from other prohibited species.

At this time, we do not have a stock assessment for lemon or tiger sharks. Therefore, we do not have information indicating that tiger or lemon sharks meet at least two of these criteria. We will revisit and consider these criteria in a future action if additional data become available about the species indicating that such review is warranted.

Scalloped hammerhead and Atlantic blacknose sharks have stock assessments that form the basis for the management measures under this final action. These stock assessments indicate a level of harvest which can occur while still allowing for the species and stock to rebuild. After taking all sources of mortality, including recreational harvest, into consideration, the TACs in the stock assessment provide room for commercial harvest of the species and stock. This is the basis for the preferred commercial quotas for scalloped hammerhead and Atlantic blacknose

sharks. Gulf of Mexico blacknose sharks do not have an accepted stock assessment and the stock status is unknown. Under this final action, we established the quota based on current landings to help prevent future mortality from increasing. At this time, we do not have information that Gulf of Mexico blacknose sharks meet at least two of the above criteria for prohibiting a species.

*Comment 22:* Commenters suggested that NMFS should cease all shark fishing and that all of these species are overfished and should be considered endangered.

*Response:* We continually monitor stocks of all species under our jurisdiction and promptly begin the rulemaking process should one of these stocks be determined to be overfished or have overfishing occurring based on the results of a stock assessment. Based on the best available scientific information, we take the required action for those shark species that are determined to be overfished through fishery management actions focused on rebuilding the fishery. Species that are "overfished" as defined by the Magnuson-Stevens Act are not necessarily also "endangered" as defined under the Endangered Species, which applies a different legal standard. We work closely with the NMFS Office of Protected Resources to determine if shark species warrant protection under ESA.

*Comments 23:* NMFS should remove hammerhead sharks from the LCS management group and designate them as a prohibited species under the ESA.

*Response:* This amendment is being conducted under the authority of the Magnuson-Stevens Act, not the ESA. While we could consider prohibiting hammerhead sharks under the regulatory criteria established in the 2006 Consolidated HMS FMP, any consideration of listing hammerhead sharks under the ESA would need to take place through a different process. Regarding listing scalloped hammerhead sharks under the ESA, we have received petitions to list scalloped hammerhead and great hammerhead sharks under the ESA. The 90-day finding for the scalloped hammerhead shark petition concluded that the petition presented substantial scientific or commercial information indicating that the petitioned action may be warranted. Consistent with legal requirements, a status review was conducted to determine if the petitioned action is warranted. The 90-day finding alone does not result in legal obligations pertaining to management of the species. NMFS is now proposing to list four populations of scalloped

hammerhead sharks under the ESA, two as threatened and two as endangered (78 FR 20717; April 5, 2013). However, NMFS has not proposed listing the species in the majority of U.S. waters due to steps fisheries managers and fishermen have already taken to help protect these species. NMFS would have to consider management implications for the species if it is listed, consistent with ESA requirements. Two other petitions to list great hammerhead sharks are currently awaiting 90-day findings.

In the current rulemaking, we did consider prohibiting all commercial and recreational shark fishing, which would include fishing for hammerhead sharks, in Alternative Suite A5 but rejected that alternative because prohibiting retention would curtail data collection for future stock assessments and other alternatives would meet the objectives of this Amendment with less significant adverse socioeconomic impacts. Generally, prohibiting hammerhead sharks from retention may not meet rebuilding goals because of the high at-vessel mortality rate of hammerhead sharks on bottom longline gear. Establishing regional TACs and quotas and quota linkages with aggregated LCS should rebuild the scalloped hammerhead stock while minimizing socioeconomic impacts because fishermen could still retain some hammerhead sharks, which otherwise would be discarded dead if there was a prohibition. We will continue to collect fishery-dependent and independent data to incorporate into stock assessments as well as incorporating new data sources when available and appropriate.

*Comment 24:* We received comments that management measures should be coordinated across state, regional, and Federal plans.

*Response:* Although this rulemaking addresses shark regulations in federal waters of the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea, we closely consult with Regional Fisheries Management Councils and affected States to coordinate shark management to the greatest extent practical. Furthermore, Federal shark commercial quotas take into account commercial landings from both Federal and state waters. Applying all landings, regardless of catch location, to Federal shark quotas helps keep total mortality below the TAC.

*Comment 25:* We received support for the preferred alternative suite's measures to manage all hammerhead sharks together under the same quota due to the similarity in appearance.

*Response:* Under this final action, we will include all hammerhead sharks under one quota that is divided between two regions. The quota was calculated by taking the scalloped hammerhead shark TAC from the stock assessment and subtracting recreational landings, commercial discards, and research set-aside mortality to establish a quota for commercial landings. Although this calculation provides a cap to scalloped hammerhead commercial landings that keeps mortality below the TAC, all hammerhead landings will count toward this calculated quota. The three hammerhead sharks are difficult to differentiate, with the most evident differences being small differences in the shape of the front of the head. Once the head has been removed and the carcass has been dressed, species identification becomes more difficult. For this reason, all hammerhead shark landings will count toward the quota calculated using scalloped hammerhead shark-specific data. This would help prevent species misidentification from causing scalloped hammerhead shark mortality to exceed the TAC.

*Comment 26:* We received comments that the preferred hammerhead shark regional quotas would not reduce landings sufficiently to protect scalloped hammerhead sharks, particularly because the preferred quotas are very close to recent landings and commercial landings would not be significantly reduced.

*Response:* The stock assessment for scalloped hammerhead sharks by Hayes *et al.* (2009) determined a TAC under which overfishing for the species would end and rebuilding could occur. Under this final action, the commercial quota for hammerhead sharks was calculated by reducing this TAC by scalloped hammerhead shark recreational landings, the research set-aside mortality, and dead discards. The resulting commercial quota was divided between the two regions using historical landing proportions. The resulting regional hammerhead shark quotas ended up at levels near recent landings. This could lead to the misperception that we are not reducing mortality from commercial landings, despite an assessment that determined that scalloped hammerhead sharks are overfished with overfishing occurring. However, the stock assessment considered data through the year 2006. Since then, commercial landings for all hammerhead sharks, including scalloped hammerhead sharks are at a lower level for a variety of market and management reasons, including Amendment 2 to the 2006 Consolidated HMS FMP which reduced LCS trips

limits. Thus, the landings for hammerhead sharks did not need to be reduced significantly to reduce mortality consistent with the stock assessment.

*Comment 27:* One commenter stated that we should adopt the most precautionary TACs and bottom longline (BLL) restrictions for Atlantic blacknose sharks.

*Response:* The TAC provided by the stock assessment would allow Atlantic blacknose sharks to rebuild by 2043 with a 70-percent probability of success. Under zero fishing mortality, the stock would have a 70-percent change of rebuilding by 2034. This rebuilding year under zero fishing mortality is greater than 10 years; therefore, a generation time (9 years) is added to the rebuilding year of 2034 to provide a rebuilding target year of 2043, consistent with the Magnuson-Stevens Act. Under the TAC in this final action, Atlantic blacknose sharks have a 70-percent probability of rebuilding by 2043. This TAC provides a probability of rebuilding in line with our stated goals for rebuilding depleted stocks. For this reason, we adopted the TAC calculated in the stock assessment.

Different types of BLL effort controls were considered but not further analyzed in the DEIS including gear tending requirements, soak time restrictions, and hook restrictions. We decided not to further consider these actions due to enforcement and monitoring concerns, safety-at-sea issues, and uncertainty regarding the conservation benefit of hook restrictions for some species because the effects of different types of hooks are not the same for all species. For these reasons, we feel setting a TAC and commercial quota, without further BLL effort controls, for Atlantic blacknose sharks will rebuild the stock. Blacknose shark dead discard estimates are calculated using BLL observer program data and these estimates are considered in the stock assessment. Furthermore, in each region commercial dead discards of blacknose sharks are used to calculate the TAC so that total mortality from the commercial fishery is accounted for.

*Comment 28:* Some commenters stated that the Gulf of Mexico blacktip shark quota should be increased above recent landings because the stock is not overfished and overfishing is not occurring.

*Response:* The SEDAR 29 stock assessment for Gulf of Mexico blacktip sharks found that the stock is not overfished, that overfishing is not occurring, and that current mortality levels are likely sustainable. Beyond these conclusions, the stock assessment does not provide projections for future

removal rates. Projections were completed by SEFSC scientists outside the SEDAR process and suggest that current removals are unlikely to lead to an overfished fish stock by 2040 and that higher levels of removal are unlikely to result in an overfished stock; however, the projection methodology for shark stocks that are not overfished is currently in development and has yet to be introduced and reviewed within the SEDAR process for this species. Therefore, these projections have a high degree of uncertainty, and SEFSC scientists noted that they were not peer-reviewed through the SEDAR process. For these two reasons, we do not prefer, at this time, to increase the Gulf of Mexico blacktip shark quota above recent landings.

*Comment 29:* We received a comment for a new alternative suite consisting of one hammerhead shark quota covering both regions or two quotas equally divided between the regions (Alternative Suite A3); establishing regional aggregated LCS quotas using the base quotas on highest annual landings in each region (method outlined in Alternative Suite A4); establishing a Gulf of Mexico blacktip quota of 1,992.6 mt dw (Alternative Suite A4); not establishing quota linkages (Alternative Suite A3); maintaining current blacknose shark and non-blacknose SCS quotas (Alternative Suite A1); and maintaining current recreational size limits (Alternative Suite A1) while increasing outreach and education efforts.

*Response:* In the FEIS, we created a new preferred Alternative Suite A6, which is a combination of Alternative Suites A2 and A3, and does not contain any of the measures suggested by the commenter. This final action is a balance between the rebuilding requirements of the Magnuson-Stevens Act by addressing the overfished and overfishing status, while minimizing the socioeconomic impacts to shark fishery participants. Alternative Suite A6 will establish a new hammerhead shark (great, scalloped, and smooth) management group with regional quotas calculated from the average annual landing percentage of hammerhead sharks by region. A separate hammerhead shark quota in each region would allow us to effectively monitor commercial landings of the species to keep mortality within the recommended TAC in the stock assessment and to rebuild within the parameters set by the rebuilding plan. Because hammerhead and Gulf of Mexico blacktip sharks are removed from the non-sandbar LCS management group in Alternative Suite A6, new regional aggregated LCS

management groups that do not include those species, as appropriate, will be created. Because this management group has an unknown stock status in both regions, we created regional quotas based on average annual landings from 2008 through 2011 of the species remaining in the management group. Due to the stock status, we did not want to increase the quotas by establishing regional aggregated LCS quotas using the base quotas on highest annual landings in each region as outlined in Alternative Suite A4. The Gulf of Mexico blacktip shark quota will be established based on average blacktip shark landings from 2008–2011 under Alternative Suite A6. Based on SEDAR 29, the stock assessment showed that current removal rates of Gulf of Mexico blacktip sharks are sustainable, and the subsequent projections, which were completed outside the SEDAR process, indicate that current removals are unlikely to lead to an overfished fish stock by 2040. SEFSC scientists calculated that an increase in mortality might be sustainable, but stated that these projections have a high degree of uncertainty and noted that they were not peer-reviewed through the SEDAR process. For these reasons, we do not prefer, at this time, to increase the Gulf of Mexico blacktip shark quota as in Alternative Suites A3 or A4. In Alternative Suite A6, we linked the quotas of shark species and management groups that are caught together to prevent incidental catch mortality from exceeding the TAC. The aggregated LCS and hammerhead shark quotas and the blacknose and non-blacknose SCS quotas will be linked in each region. The Gulf of Mexico blacktip shark quota will not be linked and the management group will open and close independent of the aggregated LCS and hammerhead shark management groups. The blacknose shark and non-blacknose SCS quotas were first linked by Amendment 3 to the 2006 Consolidated HMS FMP (NMFS 2010) and both quotas are administered as a single region across both the Atlantic and Gulf of Mexico. Since implementation of the Amendment 3, a blacknose shark fishery closure has only caused a closure in the linked non-blacknose SCS fishery once, the first year of implementation. For these fisheries, the quota linkages will not present any substantial impediments to full quota utilization. In addition, we will allow inseason regional quota transfers between regions for hammerhead shark and non-blacknose SCS management groups. Due to the stock assessment and quota linkage, we adjusted the blacknose and

non-blacknose shark quota in Alternative Suite A6. We will create separate commercial quotas for Atlantic and Gulf of Mexico blacknose sharks based on the recent blacknose assessments conducted under the SEDAR 21 process, which determined that two separate stocks exist (Atlantic and Gulf of Mexico). In the Atlantic, we established a regional blacknose shark quota based on the stock assessment TAC. The assessment model for the Gulf of Mexico stock did not fit some of the input data, so we used current landings to determine the regional quota. Based on public comment, we will maintain the current recreational management measures on all authorized shark species, except for hammerhead sharks, and address any dusky shark rebuilding measures in a separate rulemaking. Based on the reasons above, we implemented this final action, which will maximize the beneficial ecological impacts, while minimizing the adverse socioeconomic impacts to the fishery.

#### D. Quota Linkages

*Comment 30:* We received several comments expressing support for the proposed quota linkages as a means to minimize incidental mortality after the quotas have been filled. We also received comments cautioning against the use of quota linkages due to concerns of creating a “choke” species that precludes landings of species with higher quotas. These commenters suggested that quota linkages cause some quotas to close prematurely, reducing fishing opportunities at an economic cost.

*Response:* Quota linkages are designed to prevent incidental mortality of one species from occurring in another shark fishery after its management group has closed. For example, under this final action, in each region, the blacknose shark quota is linked to the non-blacknose SCS quota. If landings of either stock or management group reach, or are expected to reach, 80 percent of either quota, both management groups would close. If blacknose shark landings in one region trigger a quota closure, the non-blacknose SCS management group in that region would close as well. This would prevent blacknose mortality in the directed non-blacknose SCS fishery from occurring after the quota has been filled. We agree with some of the commenters that this management approach can offer benefits in some cases, specifically for blacknose sharks and non-blacknose SCS in both regions and hammerhead sharks and aggregated LCS in both regions. Analyses in Amendment 3 to the 2006 Consolidated HMS FMP indicated that fishermen can

avoid blacknose sharks. The quota linkage between blacknose sharks and non-blacknose SCS management groups, which has been in effect since implementing that amendment, has only been triggered once, in the first year of effectiveness, which is consistent with the Amendment 3 analysis. The regional hammerhead shark and aggregated LCS quota linkages could result in closure of one of the management groups before its quota is filled, but we anticipate that quotas will be reached at approximately the same rate. Unharvested quota does result in some negative economic impacts, but the protections provided by the quota linkage are important to end overfishing and rebuild stocks. However, as described in Chapter 2 of the FEIS under this final action, we do not expect the hammerhead shark quota in either region to be filled at a significantly faster rate than the aggregated LCS quota. The preferred aggregated LCS quota is set equal to average annual landings in each region from 2008–2011. The preferred hammerhead quota was set using the TAC from the Hayes *et al.* (2009) stock assessment after accounting for all sources of mortality, but the results are quotas that are slightly higher in both regions than average annual landings from 2008–2011. If fishing continues in a similar fashion to the years 2008–2011, both quotas in each region should fill at about the same rate, reducing the chances of premature management group closures. Although the two quotas would likely be filled at the same rate, we still prefer to link the quotas to provide extra protection for scalloped hammerhead sharks. As described in Chapter 2 of the FEIS, scalloped hammerhead sharks are often caught with aggregated LCS. If the hammerhead shark quota is filled more quickly than usual, linking the quotas will provide protection for scalloped hammerhead sharks in the aggregated LCS fishery.

After considering comments provided during the public comment period and analyzing updated data, we no longer prefer to link the Gulf of Mexico blacktip quota to the Gulf of Mexico aggregated LCS and hammerhead shark quotas. In this region, the blacktip shark and aggregated LCS quotas will be set equal to average annual landings from 2008–2011. The preferred Gulf of Mexico hammerhead shark quota will be set using the TAC from the Hayes *et al.* (2009) stock assessment after accounting for all sources of mortality, but the result are quotas that are slightly higher in both regions than average annual landings from 2008–2011. If fishing continues in a similar fashion to

the years 2008–2011, all three quotas in this region should fill at about the same rate. Furthermore, aggregated LCS and hammerhead sharks are caught in small amounts on trips targeting Gulf of Mexico blacktip sharks, so this should not affect the mortality rates of hammerhead sharks. As long as the quotas do fill at about the same rate, significant additional mortality of aggregate LCS and hammerhead sharks should not occur after these management groups close. Dead discards of scalloped hammerhead sharks in the greater LCS fishery have already been factored into the preferred hammerhead shark quota. As a safeguard, this final action will provide us with a mechanism to close the Gulf of Mexico blacktip shark management group after the hammerhead shark fishery closes if high levels of scalloped hammerhead shark mortality were occurring.

To try to prevent closures with quota remaining to the extent possible, this final action will also allow for the transfer of hammerhead shark quota and non-blacknose SCS quota between regions. The quotas for these two management groups were split for quota linkage purposes and not because of differences in stocks. If one of the regional quotas is filling more quickly than the other, we could transfer quota between regions to maximize access to the resource. When considering quota transfers, we would follow a set of criteria as outlined in Chapter 2 of the FEIS. A full analysis of economic impact of quota transfers is available in Chapter 4 of the FEIS.

*Comment 31:* We received comments that instead of implementing quota linkages, we should deduct the estimated incidental mortality that would occur after a quota closure, and deduct it from the commercial quota.

*Response:* Dead discards have already been factored into the quotas where quota linkages will be implemented under this final action: the blacknose sharks and non-blacknose SCS quotas in each region and the aggregated LCS and hammerhead shark quotas in each region. The blacknose shark and non-blacknose SCS quotas were first linked by Amendment 3 to the 2006 Consolidated HMS FMP and both quotas are administered as a single region across both the Atlantic and Gulf of Mexico regions. The blacknose shark quota was established based upon a recent stock assessment. The non-blacknose SCS quota was based on average landings for finetooth, Atlantic sharpnose, and bonnethead sharks. This approach for the non-blacknose SCS quota was used to ensure that fishing

mortality of those species would not be increased, consistent with the 2007 SCS stock assessment. This action, although reconsidering the blacknose shark quotas, would only split the non-blacknose SCS quota between the two regions without impacting the dead discard mitigation measures implemented through Amendment 3. Since implementation of Amendment 3, a blacknose shark fishery closure has only caused a closure in the linked non-blacknose SCS fishery once, in the first year of implementation. For these two fisheries, the quota linkage has not presented any substantial impediments to full quota utilization.

Similarly, the aggregated LCS and hammerhead shark quotas in each region would likely be harvested at about the same rate. Both regional aggregated LCS quotas were set equal to average annual landings from 2008–2011. Both regional hammerhead shark quotas were established using the TAC, reduced by non-commercial landings sources of mortality, and then divided among the regions. The resulting commercial quotas are at a level slightly above average annual hammerhead shark landings from 2008–2011. Because both the aggregated LCS and hammerhead quotas are at or slightly below average annual landings, both should be taken at about the same rate and the quota linkages should not present any substantial impediments to full quota utilization.

As noted in our response to Comment 30, we no longer prefer to link the Gulf of Mexico blacktip shark management group to the aggregated LCS and hammerhead shark management groups. All three quotas should be harvested at about the same rate, so the blacktip management group closure would likely occur shortly before or after the hammerhead shark management group closure. The hammerhead shark quota has also already considered dead discards from a variety of fisheries, including the non-sandbar LCS fishery, of which Gulf of Mexico blacktip sharks are currently a part.

*Comment 32:* Several commenters, including the Florida Fish and Wildlife Commission, noted that quota linkages could also result in fishermen discarding the species with the smaller quota (sometimes referred to as a “choke species”) to avoid closure of the larger fishery, resulting in unreported dead discards.

*Response:* The regional aggregated LCS and hammerhead shark quota linkages under this final action are unlikely to result in excessive discards. As discussed in Chapter 2 of the FEIS, we expect these two quotas to be

harvested at about the same rate, disincentivizing discards of hammerhead sharks to keep the aggregated LCS fishery open. Therefore, because the quotas of these management groups are expected to be filled at about the same time we do not expect one management group to overwhelmingly act as a “choke species” on the other management groups.

Currently, the blacknose shark and non-blacknose SCS quotas are linked. These quotas are administered across both regions, but this final action will separate both into Atlantic and Gulf of Mexico regions. Since implementation of the blacknose shark and non-blacknose SCS quota linkage, we have not received information about excessive discards. When analyzing the impacts of this quota linkage in Amendment 3 to the 2006 Consolidated HMS FMP, we found that fishermen were largely able to avoid blacknose sharks. Furthermore, dead discard estimates from observer programs are collected and factored into the SEDAR 21 stock assessment and will be factored into future assessments as well. For these reasons, total mortality will still be accounted for.

*Comment 33:* We received comments that we should send updates to dealers and give advanced notice regarding the landings of hammerhead sharks to minimize the risk of a premature aggregated LCS management group closure.

*Response:* Currently, we send periodic shark landings updates to all interested parties and post these updates online throughout the year. All members of the public have access to these landings updates. As of January 1, 2013, dealers are now required to report all HMS, including sharks, electronically. This new requirement will produce more timely information and can provide more frequent shark landings reports for all interested parties, including dealers. Upon implementation of this amendment, we will also provide landings updates of all management units, including the hammerhead shark management group.

*Comment 34:* One commenter expressed concern that quota linkages could provide a mechanism for an individual or group to obtain fishing and dealer reports and close shark fisheries through false landings reports.

*Response:* This type of activity is unlikely. We review logbook and dealer reports regularly and would likely notice these types of reports. Irregularities in the reported information, including excessive landings or unusual fishing operations would flag these reports for further

review. Furthermore, quota linkages are unlikely to make this practice more effective. If this action was possible, quota linkages would not increase the effectiveness. Finally, falsifying Federal reports is unlawful and any individual or group engaging in this type of activity would be subject to enforcement action.

*Comment 35:* The Florida Fish and Wildlife Commission suggested that the proposed management approach on dusky sharks may have significant impacts on hammerhead sharks, and recommends that a more comprehensive management approach be developed that considers sandbar, dusky and hammerhead sharks together.

*Response:* The recent dusky shark stock assessment (SEDAR 21) determined that dusky sharks are overfished with overfishing occurring. Measures to end overfishing and rebuild this species were included in the DEIS for this action but, as detailed in the Chapter 1 of the FEIS, will not be addressed in this rulemaking but will instead be addressed in the upcoming Amendment 5b to the 2006 Consolidated HMS FMP. The measures in that rulemaking to reduce mortality of dusky sharks could have an impact on hammerhead shark mortality; however, any impact would likely be quite low. Dusky sharks and hammerhead sharks are rarely caught together as they largely interact with different gears (pelagic longline for dusky sharks and bottom longline for hammerhead sharks). Furthermore, any measures to reduce mortality of dusky sharks in the pelagic longline fishery is unlikely to affect hammerhead sharks because the retention of hammerhead sharks caught with pelagic longline gear is already prohibited (76 FR 53652). Finally, as detailed in Chapter 1 of the FEIS, we need to address overfishing on scalloped hammerhead sharks and implement a rebuilding plan based on a timeline mandated in the Magnuson-Stevens Act. For that reason, we cannot delay action until dusky shark overfishing is addressed.

#### E. Recreational Issues

*Comment 36:* We received a comment stating that because recreational shark fishing is mostly catch-and-release, anglers should be allowed to occasionally land a shark that is not overfished for personal consumption.

*Response:* Recreational anglers with an HMS Angling Permit or HMS Charter/Headboat Permit are currently allowed to retain one authorized shark per vessel per trip as long as the shark meets the 54-inch minimum size requirement and one additional Atlantic sharpnose and one bonnethead per

person per trip with no minimum size. The preferred alternative suite presented in the FEIS increases the minimum size for hammerhead sharks but otherwise does not change these regulations. As such, recreational fishermen will still be allowed to land a limited number of sharks.

*Comment 37:* We received a comment that many shark species are not good candidates for a catch-and-release fishery and that the proposed minimum size increase could be dangerous and increase discard mortality.

*Response:* We recognize that an increase in minimum size could cause some safety concerns given the larger size of sharks retained and difficulties associated with bringing them onboard and may increase discard mortality. However, increasing the minimum size as in the preferred Alternative Suite A6 would ensure that only larger hammerhead sharks are landed and that as the scalloped hammerhead stock rebuilds, increased fishing opportunities may result in the long-term. Furthermore, the increased minimum size would ensure that only larger or “trophy” sized sharks are landed. Post-release mortality rates of sharks in the recreational fishery are generally believed to be low when injuries from hooking and releasing the shark are minimized.

*Comment 38:* The regulations should be split into three sectors: commercial, recreational, and charter/headboat.

*Response:* Current regulations apply to the commercial and recreational sectors and do not address the charter/headboat sector separately. The proposed rule did not consider all restructuring the regulations vis-à-vis three sectors, thus we cannot make change in the final rule. However, we will take into consideration in future amendments, as appropriate.

*Comment 39:* NMFS should divide the HMS recreational permits to separate shark permits from tuna and other HMS permits. Permits should be issued to the individual rather than the vessel. NMFS should also consider requiring operator permits.

*Response:* In preparing the FEIS and final rule, we considered the commenter’s recommendation to split the HMS recreational permits apart by species, issuing individual and not vessel permits, and requiring operator permits, but found that it was not considered “reasonable” under the NEPA Screening Criteria (see Chapter 2 of the FEIS). Specifically, the alternative is not administratively feasible under current budget restrictions, and costs associated with this recommendation require additional resources not

available at this time. HMS Angling permits were originally authorized to allow recreational fishing activities for all HMS species (sharks, swordfish, tunas, and billfish) to simplify the permitting process, as some anglers may wish to fish for a variety of HMS species. Additionally, recreational fishing for large pelagic species often results in capture of tunas, swordfish, billfish, or sharks on a given trip. Because Atlantic HMS regulations require permits for species that are likely to be caught, having a single recreational permit for all HMS ensures that a vessel owner is properly permitted in the event that an HMS is caught. This system allows for effective management of the recreational fishery at this time. While we do not currently consider the commenter’s suggested alternative reasonable, we will take these options into consideration in future amendments.

*Comment 40:* One commenter supported the approach in Alternative Suite A4 that would set species-specific quotas for recreational fisheries.

*Response:* We considered species-specific shark quotas for the recreational fishery under Alternative Suite A4. Species-specific shark quotas have not been implemented in the recreational fishery due to the difficulty in estimating recreational landings in real-time. Currently, anglers are limited to one authorized shark species per vessel per trip and one Atlantic sharpnose and one bonnethead shark per person per vessel per trip. We determined that Alternative Suite A4 would have minor, beneficial ecological impacts on sandbar sharks, which are currently sometimes landed (though prohibited) due to misidentification by anglers. However, we felt that increasing outreach, an identification guide, and increasing the hammerhead shark minimum size limit would result in beneficial long-term ecological impacts. Due to the administrative difficulties in establishing and monitoring numerous species-specific recreational quotas, we do not currently prefer this alternative.

*Comment 41:* The Florida Fish and Wildlife Conservation Commission does not support the claim that NMFS needs to reduce the recreational mortality of blacknose sharks to meet the rebuilding target for the established total allowable catch. Reductions in recreational mortality are likely not needed as harvest reductions in the Atlantic blacknose shark fishery due to management measures in Amendment 3 to the 2006 Consolidated HMS FMP implemented in 2010 were not taken into account for the 2010 stock assessment for Atlantic blacknose, and

it is highly questionable that Atlantic blacknose sharks are overfished and experiencing overfishing at this time.

*Response:* In the calculation of total allowable catch and quotas, we examined 2011 data for commercial landings. The results of the SEDAR 21 stock assessments for blacknose sharks showed the overfished/overfishing status of blacknose sharks in the Gulf of Mexico region is currently unknown and blacknose sharks are overfished and experiencing overfishing in the Atlantic region. The commercial blacknose quota in the Atlantic region is based on the TAC from the SEDAR 21 stock assessment after deducting other sources of mortality, including recreational landings. Because the status is unknown in the Gulf of Mexico region, the commercial quota is based on landings capped at a level already reduced since the implementation of Amendment 3 to the 2006 Consolidated HMS FMP. Under the preferred Alternative Suite A6, current recreational size and retention limits will remain at 54 inches fork length, except for the recreational minimum size for hammerhead sharks, which will increase to 78 inches fork length. Blacknose sharks rarely, if ever, reach 54 inches fork length as a maximum size. Blacknose sharks will not be explicitly prohibited, and states may continue to allow recreational landings of blacknose sharks. We determined that these current regulations would continue to provide adequate protection for blacknose sharks in the commercial and recreational fishery. This final action also includes additional outreach to recreational anglers on identification of sharks.

*Comment 42:* NMFS needs to be more involved in fishing tournaments.

*Response:* We require any fishing competition involving Atlantic HMS in which participants must register or in which a prize/award is offered for catching or landing HMS to register their tournament with the HMS Management Division of NMFS at least four weeks prior to the start of the tournament. At that time, the HMS Management Division provides tournaments with copies of compliance guides and recreational placards. The NMFS SEFSC notifies tournament organizers if their tournament has been selected for reporting and all reporting forms must be sent to SEFSC within seven days of the tournament ending. Additionally, NMFS NEFSC often samples sharks landed at shark fishing tournaments and provides outreach to anglers as needed. Tournament operators are responsible for ensuring that anglers are aware of and compliant

with Federal regulations. Currently, we hold shark identification workshops that are mandatory for shark dealers, although other parties can attend, and have recreational shark identification placards that categorize the differences between the recreational sharks. The placards can be attained on the HMS Web site ([http://www.nmfs.noaa.gov/sfa/hms/sharks/2008/Rec\\_shark\\_ID\\_placard.pdf](http://www.nmfs.noaa.gov/sfa/hms/sharks/2008/Rec_shark_ID_placard.pdf)) or by contacting the HMS Management Division at 301-427-8503. We are also working on an identification guide for all the prohibited shark species to help with this outreach. Measures in this action will also increase outreach and education on shark identification and recreational measures.

*Comment 43:* We received a number of comments recommending that NMFS require circle hooks in recreational shark fisheries. The Mid-Atlantic Fishery Management Council recommended that circle hooks be required in shark fishing tournaments. One commenter suggested requiring non-offset circle hooks with natural bait.

*Response:* We currently do not have hook requirements in the shark recreational fishery, but require the use of circle hooks in billfish tournaments where billfish fishery-specific data indicated a substantial decrease in white marlin mortality when circle hooks were used. The effect of circle hooks is not the same for all species, and their conservation benefit for some species may be mixed (as discussed in Section 2.2 Alternatives Considered but not Further Analyzed in Chapter 2 of the FEIS). We are not aware of any shark-specific research demonstrating the performance of circle hooks in reducing shark mortality in recreational fisheries. We may consider this action, as appropriate, in future amendments.

*Comment 44:* Texas Parks and Wildlife expressed concern about the level of illegal shark fishing occurring that involves foreign fishing vessels operating illegally in U.S. waters and asserted that the number of sharks harvested illegally far exceeds the landings that Texas has seen in recreational and commercial fisheries combined.

*Response:* NOAA and the U.S. Coast Guard are actively working to address illegal fishing vessel incursions into U.S. waters, and NMFS has begun including illegal catches from the border of Texas and Mexico in stock assessments to ensure we are considering all sources of mortality. Illegal fishing is of high concern to us as this capture undermines management and rebuilding strategies, makes stock assessments and capture data less

reliable for science, and hurts legal fishermen.

*Comment 45:* The same laws should apply to commercial or recreational fishermen fishing on boats as those fishing from shore.

*Response:* Fishermen fishing for sharks from shore are subject to state regulations as they are fishing in state waters. If fishermen are harvesting Atlantic sharks in federal waters, they are required to hold an HMS permit. HMS permit holders must abide by all applicable Federal regulations, regardless of where fishing occurs, including in state waters. However, when fishing in the waters of a state with more restrictive regulations, the more restrictive state regulations apply.

*Comment 46:* Charter boat operators should be able to harvest sharks if the season is open.

*Response:* Under the HMS Charter/Headboat permit, most Charter/Headboat operators fish under the recreational retention limits for sharks and follow the same retention limits and size limits as would any angler. However, if the vessel has been issued both an HMS Charter/Headboat permit and a commercial shark permit, the vessel operator is allowed to land commercial limits and use commercial gear types under certain conditions. More information is provided in the HMS 2012 Recreational Compliance Guide, which can be obtained by contacting the HMS Management Division (see **ADDRESSES**).

*Comment 47:* NMFS received comments supporting an increase in minimum fork length to 78 inches for hammerhead sharks as considered in Alternative Suite A3. One commenter expressed concern that the proposed length of 96 inches is too large for great hammerhead sharks, although appropriate for scalloped and smooth hammerheads. Another commenter suggested that the minimum size for hammerheads be increased to 96 inches fork length or that NMFS should add the species to the prohibited species list.

*Response:* This recommendation is part of our new preferred Alternative Suite A6 in the FEIS. The larger recreational size limit will limit the retention of scalloped hammerhead sharks to mature individuals. Also, we will include all hammerhead species together for this alternative due to identification issues. Hammerhead sharks are difficult to identify even for experienced fishermen, particularly when dressed with the head removed. We found that this action, as proposed in Alternative Suite A3, would be unlikely to impact tournaments, as participants typically target larger

sharks than other recreational fishermen and many tournaments have minimum shark sizes greater than 54 inches fork length. Additionally, increasing the recreational size limit for hammerhead sharks would ensure that only larger, trophy sharks would be landed. The size increase is necessary to end overfishing and rebuild the scalloped hammerhead stock. As the scalloped hammerhead shark stock rebuilds, future fishing opportunities are likely to increase. Due to the difficulty of distinguishing between the different hammerhead shark species, it is important to have the same minimum size across the three hammerhead shark species. Therefore, an increase to 96 inches fork length is not appropriate at this time.

*Comment 48:* We received a number of comments recommending that NMFS increase the shark minimum fork length to 72 inches. Commenters suggested 72 inches as a compromise between the current minimum size of 54 inches and the proposed minimum size of 96 inches.

*Response:* We did not consider a shark minimum size increase to 72 inches fork length in the DEIS because there is no biological reason we are aware of for a 72-inch minimum size. The current minimum size of 54 inches was established due to the size-at-maturity for sandbar sharks. We proposed an increase to 96 inches fork length minimum size due to the size-at-maturity for dusky sharks, which are no longer considered under this amendment. The 78 inches fork length increased minimum size for hammerhead sharks in this final action is due to the size-of-maturity for scalloped hammerhead sharks.

*Comment 49:* We received comments that an increase in minimum size limit for all recreationally caught sharks would essentially eliminate the recreational fishery for blacktip sharks as they are smaller sharks. Commenters suggested that blacktip sharks be exempt from the minimum size limit in the Gulf of Mexico region.

*Response:* We understand the concerns with blacktip sharks specifically with regard to an increase in minimum size as the Gulf of Mexico blacktip shark stock was found to be not overfished and not experiencing overfishing. According to the most recent stock assessment, current fishing rates are sustainable, and the current quotas maintain these rates. If we exempted Gulf of Mexico blacktip sharks for the recreational minimum size, this would increase mortality on these sharks. The preferred Alternative Suite A6 in the FEIS does not increase the minimum size for blacktip sharks.

We may consider exempting Gulf of Mexico blacktip sharks from the minimum size limit in the future.

*Comment 50:* We should increase the recreational size limit to 60 inches fork length, as some 54 inches fork length mako sharks weigh only 70 lb and that is pretty small for a keeper.

*Response:* We considered increasing the minimum size to 96 inches fork length for all sharks in recreational fisheries or 78 inches fork length for hammerhead sharks in the DEIS. The Preferred Alternative Suite A6 in the FEIS does not increase the minimum size for mako sharks. In 2012, ICCAT conducted a stock assessment of shortfin mako sharks, which found that shortfin mako sharks are not overfished and that overfishing is not occurring. Therefore, additional action on shortfin mako sharks is not needed at this time.

*Comment 51:* We received a number of comments in support of mandatory reporting of recreational landings especially if this data would improve stock assessments. Many commenters, including state agencies such as the Maryland Department of Natural Resources, Florida Fish and Wildlife Conservation Commission, and South Carolina Department of Natural Resources, supported reporting requirements for hammerhead sharks specifically and suggested having information on reporting included on permits and through the HMS online non-tournament reporting system.

*Response:* Despite many public comments in favor of mandatory reporting of recreational landings, particularly of hammerhead sharks, we have determined to not move forward with this requirement at this time. Estimates of recreational mortality for hammerhead sharks will continue to occur via existing surveys (LPS/MRIP), which NMFS has determined is sufficient for immediate rebuilding purposes, as set out in Alternative Suite 6 (the Preferred Alternative). Recreational shark reporting measures will be further addressed in Amendment 5b. We removed dusky shark regulations and measures from the current action. Mandatory reporting of all recreationally landed sharks, not just hammerhead sharks, may be considered in a future action.

*Comment 52:* We received many comments that strongly supported NMFS' proposal to increase outreach, education, and shark identification training to recreational anglers and tournament participants. Many commenters had specific suggestions for NMFS to improve these efforts. The State of Maryland, South Carolina Department of Natural Resources,

Florida Fish and Wildlife Conservation Commission, and the Mid-Atlantic Fishery Management Council expressed their support and suggestions as well. Specific suggestions include: Publish information in sport fishing magazines and Web sites; sending identification placards to all HMS recreational fishing permit holders; holding public seminars; posting placards at marinas, fishing jetties, and piers; having identification guides focus on key morphological characteristics of species; and restructuring the HMS recreational permits so that anglers cannot harvest sharks without an "endorsement" that can only be received after shark identification training. For charter/headboat operators, one commenter recommended that NMFS create shark identification videos and post them to popular video-sharing sites and require charter boat permit holders to show the videos to customers. This commenter also suggested that videos of the top five most frequently caught and top five overfished sharks with specific characteristics to look for and instructions on how to differentiate between similar looking species be sent to the Regional Fishery Management Councils. The South Carolina Department of Natural Resources recommended that NMFS emphasize better enforcement of the regulations already in place. One commenter expressed concern about surf-fishermen in Delaware where shark interactions are high, and suggested that NMFS have outreach information and shark identification placards at these beaches. One commenter emphasized the need for NMFS to increase outreach to tournaments, especially as some are not registered with HMS. This commenter suggested that placards and checklists be sent to tournament operators and that NMFS check with state enforcement officials or state Sea Grant offices to ensure tournament registration. One commenter also provided suggestions for how to distinguish between different hammerhead shark species. Many emphasized that benefits from increased outreach efforts by NMFS would improve the quality of species-specific catch data for future assessments.

*Response:* We agree with all commenters that additional outreach and education, particularly to recreational anglers, is important to increasing compliance with recreational regulations and in ensuring the sustainability of recreational fishing. We greatly appreciate the many suggestions by commenters on how to improve education and outreach and will take these under consideration. Preferred

Alternative Suite A6 in the FEIS will allow for such activities to occur. Currently, we hold shark identification workshops that are mandatory for shark dealers, but others can attend. We also have recreational shark identification placards that categorize the differences between the recreational sharks. The placards can be obtained on the HMS Web site (<http://www.nmfs.noaa.gov/sfa/hms/index.htm>) or by contacting the HMS Management Division at 301-427-8503. Additionally, we are currently working on a similar placard for all the prohibited shark species to help with this outreach. In the future, we could increase cooperation with states to improve identification of species in state waters as a larger portion of the recreational catches of some species occurs in state waters. It may also be necessary to work with states to ensure consistent regulations and enforcement.

#### F. Economic Impacts

*Comment 53:* We received several comments regarding the adverse economic impact of proposed recreational measures on the Charter/Headboat fishery including one from the Mississippi Department of Marine Resources highlighting the importance of the large coastal shark fishery to the livelihood of Charter/Headboat captains.

*Response:* We agree that the large coastal shark fishery is important to the HMS Charter/Headboat industry; the new preferred alternative suite to raise the minimum size limit on hammerhead sharks (great, smooth, and scalloped) would have minimal impact on the Charter/Headboat fleet. Recreational regulations will remain the same for all other shark species, and the preferred hammerhead shark regulations will only apply to three hammerhead shark species. Furthermore, the preferred minimum size limit could potentially create a trophy fishery for hammerhead sharks while ensuring the continued sustainability of the hammerhead shark stocks, which could lead to positive long-term economic impacts for the Charter/Headboat fishery.

*Comment 54:* While reducing catch limits may have an immediate negative economic impact, the impact on shark stocks in the long-term will only be positive.

*Response:* We agree that the preferred catch limits and quotas would have a positive impact on the long-term sustainability of the associated shark stocks. Additionally, while the preferred quota reductions will have some minor short-term adverse economic impacts, their long-term economic impacts should be positive as they allow for rebuilding of overfished stocks.

*Comment 55:* NMFS is incorrect that the impacts of these proposals will have a neutral effect on the surrounding resources yet will have a minor effect on the social and economic impact of fishermen and their communities. You will see that the current regulations are having a severe negative impact on the surrounding resources as is evidenced by the multitude of damaged and wasted fish due to shark predation.

*Response:* Under the Magnuson-Stevens Act, we must manage all our nation's marine fisheries for optimum yield and end overfishing of all fish stocks, including shark fisheries. Current regulations are established under the Magnuson-Stevens Act to manage all our nation's marine fisheries for optimal yield and to rebuild overfished fish stocks for all fisheries, including sharks. We work closely with the regional fisheries management councils to ensure actions in the HMS fisheries do not jeopardize the continued existence of other fisheries. The cumulative direct and indirect impacts on EFH, predator/prey relationships, and protected resources would be neutral for the short- and long-term because commercial quotas would be similar to current levels and fishing pressure is not expected to change. Sharks are a natural and integral part of the marine ecosystem, and commercial and recreational shark fisheries provide significant positive economic impacts to our coastal communities.

When taken as a whole, this final action would likely have direct short- and long-term minor adverse socioeconomic impacts. These impacts would mostly affect fishermen targeting scalloped hammerhead and blacknose sharks, because the quotas would be reduced. These fishermen are likely to adapt to the new regulations by fishing in other fisheries, or changing their fishing habitats. Recreational management measures would increase the size limit for hammerhead sharks and cause fishermen to catch and release more hammerhead sharks, although tournament participants should not be impacted. Neutral socioeconomic impacts are expected for fishermen targeting the aggregated LCS and non-blacknose SCS management groups because the quotas are based on the average landings for each species.

Indirect short-term minor adverse socioeconomic impacts would likely result from this alternative suite's actions. The measures in this alternative suite adjust quotas based on new scientific information and would impact shark landings. Consequently, it is possible that dealers and supporting businesses such as bait and tackle

suppliers may experience minor adverse impacts in the short-term. However, as they do not rely solely on the shark fishery and buy from and sell to a variety of fisheries, the impacts are expected to be neutral in the long-term. The changes to quotas would impact fishermen retaining certain shark species, but the changes are small enough that dealers and supporting businesses are unlikely to experience impacts from this alternative suite and its effects are therefore expected to be neutral.

*Comment 56:* The EPA says that while they appreciated NMFS' effort to evaluate the potential economic impact on these communities, more research is needed to address the impact on the fisherman, especially if these proposed limitations will have a disproportionate economic impact on minority and/or low-income populations.

*Response:* We agree that it is important to assess the economic impacts of regulatory actions on minority and/or low-income populations. However, this final action is expected to have neutral or minor adverse economic impacts at worst, and positive long-term impacts as overfished shark populations are rebuilt. As such, these measures will benefit everyone affected in the long-term. Our analyses of economic impacts used the best data available at this time. In future rulemakings, we will use more specific data regarding economic impacts on minority and/or low-income populations if it becomes available. We continue to support the development of methods to identify whether proposed amendments will have disproportionately high adverse impacts on minority or low income populations, as appropriate.

#### G. Concerns Regarding the DEIS

*Comment 57:* The DEIS document is more than 600 pages and very difficult to understand at times, especially the information, data, and its sources.

*Response:* We recognize that the DEIS was large and complex because it contained a complete range of alternatives for rebuilding multiple shark stocks. The removal of the dusky shark measures to a future action has reduced the number of alternatives in the FEIS, and we have made a concerted effort to explain these measures, and their impacts, using language that is as clear and concise as possible.

*Comment 58:* We received comments that pointed out typographical errors and other errors in the DEIS.

*Response:* We appreciate these comments and have made the appropriate edits in the FEIS.

*Comment 59:* The EPA recommended that NMFS provide the reader with a better understanding of when the agency has received the same comment multiple times, thus helping the reader with further public comment.

*Response:* We appreciate the EPA's comment and made a point to note in the FEIS that we received numerous public comments on the dusky shark measures in the DEIS. In part, these comments helped us make the decision to remove the dusky shark measures from this rulemaking and re-evaluate and analyze approaches to rebuild dusky sharks in an upcoming proposed action.

*Comment 60:* The EPA commented that NMFS provided a clear and understandable table summarizing preferred alternatives for each shark species.

*Response:* We appreciate the EPA's comment and note that tables in the Executive Summary of the FEIS clearly summarize the preferred alternative suite as well as changes from the DEIS and the reasons for those changes.

*Comment 61:* The State of North Carolina and Atlantic States Marine Fisheries Commission (ASMFC) recommended moving forward with management measures to achieve ending overfishing for scalloped hammerhead and delaying other measures until they can be more fully analyzed, and emphasized that NMFS should delay the measures to end dusky shark overfishing.

*Response:* We appreciate the State of North Carolina's and the ASMFC's comment and have removed the dusky shark measures from this rulemaking to re-evaluate and analyze approaches to rebuild dusky sharks in an upcoming proposed action. We did not receive substantive comment to delay any of the measures proposed in the DEIS for blacknose, sandbar, or Gulf of Mexico blacktip sharks; therefore, we are moving forward with these management measures, as well as the management measures to rebuild scalloped hammerhead sharks, in this amendment.

*Comment 62:* We received a number of requests to extend the DEIS comment period for 45 days. Some of the reasons for this request included additional time for data analysis and extra time for fishermen impacted by Super Storm Sandy to read and comment on the DEIS. The ASMFC was concerned that the 2-year rebuilding timeline for scalloped hammerhead sharks would be cited as a reason not to extend the comment period.

*Response:* We did not extend the DEIS comment period, in part in an attempt

to meet our Magnuson-Stevens Act requirement to establish a rebuilding plan within 2-years after a stock has been determined to be overfished. Also, the requests to extend the comment period for additional data analysis and public comment were mainly concerned with the dusky shark measures that were included in the DEIS. We would not have been able to complete additional dusky shark data analyses or develop additional measures based on public comment within a 45-day extension of the comment period. Therefore, we decided to remove the dusky shark measures from this rulemaking to re-evaluate and analyze approaches to rebuild dusky sharks in an upcoming proposed action. This will allow us to conduct further data analysis for dusky shark rebuilding measures and allow the public ample opportunity to comment on these upcoming proposed measures, while continuing with Amendment A5a to establish a rebuilding plan for scalloped hammerhead sharks.

#### H. General Comments

*Comment 63:* The proposed regulations drive regulatory discards, contribution to mortality over established limits and overfishing. Waste of sharks and inefficiencies from derby rules (e.g., trip limits and market gluts) are in conflict with National Standards 1, 8, 9, and 10.

*Response:* While conducting assessments and in calculating TACs and quotas, we take regulatory discards into account. As described in Chapter 2 of the FEIS, dead discards of scalloped hammerhead sharks are already considered under the TAC. The quota linkages in preferred Alternative Suite A6 are necessary in these multispecies fisheries to ensure that the TAC of shark species under a rebuilding plan is not exceeded and to minimize regulatory discards, to the extent practicable. To allow maximum access to the Gulf of Mexico blacktip shark resource, this final action will allow us to open and close the Gulf of Mexico blacktip shark management group independently of the hammerhead shark and aggregated LCS management groups. We also do not anticipate increased discards in the recreational fishery, as the increase in minimum size to 78 inches fork length is limited to hammerhead sharks.

As part of this FEIS, we have analyzed the consistency with the National Standards and found the action to meet them all. This final action would be consistent with National Standard 1 because it would implement adjustments to mortality levels consistent with the stock assessments

for blacknose, blacktip, and scalloped hammerhead sharks that would allow fishermen to harvest optimum yield for these species while allowing for rebuilding and preventing overfishing. With respect to National Standard 8, this final action strikes an appropriate balance between positive ecological impacts that are necessary to rebuild and prevent overfishing on depleted stocks while minimizing, to the extent practicable, the severity of negative social and economic impacts that will occur as a result of these actions. For National Standard 9, this final action considers bycatch while focusing on capping fishing mortality. The preferred quota linkages would prevent bycatch of sharks by opening and closing shark management groups at the same time to prevent excessive mortality of one species due to incidental capture while targeting other shark species. Additionally, the bycatch of hammerhead sharks while fishing for Gulf of Mexico blacktip sharks was explicitly analyzed under the quota linkage section in Alternative Suite A6. No impact to safety of life at sea is anticipated to result from this final action, meeting National Standard 10. Please see Chapters 2, 4, 6, and 10 in the FEIS for more information.

*Comment 64:* We received several comments expressing support for us to accelerate the rulemaking process for Amendment 6 to the 2006 Consolidated HMS FMP, which would consider catch shares in some or all of the Atlantic shark fisheries. Some commenters suggested that we should wait to implement the measures in this rulemaking until Amendment 6 is implemented, citing the possibility of increased accountability in the fishery and decreased incentives for discards of sharks.

*Response:* We are currently working on Amendment 6 to the 2006 Consolidated Highly Migratory Species Fishery Management Plan. Under current limited resources, we do not have the ability to work on both Amendment 6 and Amendment 5 simultaneously. Because statutory mandates require us to implement a rebuilding plan to rebuild overfished species (in this case, scalloped hammerhead sharks) within two years of a stock status determination that the stock is overfished, we must complete this amendment prior to development of Amendment 6 to the 2006 Consolidated HMS FMP. We will consider the issues raised in this comment as we develop draft Amendment 6 to the 2006 Consolidated HMS FMP.

*Comment 65:* We need to provide clear objectives to both recreational and

commercial fisherman to describe what a successful rebuilding plan would look like. What would need to happen for us to increase TACs or bring back the former minimum size limits?

*Response:* The Magnuson-Stevens Act National Standards require us to meet certain standards when making fisheries management decisions. National Standard 1 requires us to end overfishing while achieving, on a continuing basis, optimum yield from each fishery. National Standard 8 states that conservation and management measures shall take into account the importance of fishery resources to fishing communities. As mentioned in response to other comments, we continually monitor stocks of all species under our jurisdiction and promptly begin the rulemaking process should one of these stocks be determined to be overfished or have overfishing occurring based on the results of a stock assessment. As management measures for overfished stocks result in stock rebuilding, we will be able to revisit TACs, minimum size limits, and other management measures to provide more fishing opportunities, consistent with legal requirements.

*Comment 66:* The current shark regulations have caused the shark populations to increase and cause a direct negative impact on other fishery stocks. Due to the high predation from the abundant sharks, profits in other commercial fisheries have declined on every trip. Not only does this create more discards and waste of our resources, it has a direct impact on the increased cost of fishing due to lost gear.

*Response:* We are required under the Magnuson-Stevens Act to rebuild overfished fish stocks, including sharks, to manage for optimum yield. We conduct stock assessments and seek to maintain shark stocks at a level that allows them to be harvested at optimum yield while also maintaining their role in the ecosystem. Sharks are top predators and hunt and eat lower trophic level species, including fishes targeted by other fishermen. We work closely with five Atlantic Fishery Management Councils (New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, and the Caribbean), the two Atlantic Interstate Marine Fisheries Commissions (Atlantic States and Gulf States), and the HMS Advisory Panel to promote an ecosystem-based approach to management which takes such interactions into consideration.

*Comment 67:* We received two comments regarding the listing of sharks under the ESA: one comment requested to know the status of the scalloped hammerhead shark 90-day finding; the

other comment urged us to continue to promulgate shark regulations in a proactive and conservative way, so that petitions for listing sharks under the ESA are found to be without substantial scientific or commercial information indicating that the petitioned action may be warranted. The commenter stated that such listings will almost definitely force time/area closures for a variety of fishermen and reduce fishing opportunities across a number of fisheries. The commenter stated that it is important for fishermen to understand that economic value is excluded from consideration under the ESA, and that once these listings occur, fishermen will lose their voice in the regulatory process.

*Response:* On November 28, 2011 (76 FR 72891), the NMFS Office of Protected Resources determined that the listing of scalloped hammerhead sharks may be warranted and began a status review. Two other petitions to list great hammerhead sharks are currently awaiting 90-day findings. The results of the status review will lead either to a determination that listing scalloped hammerhead sharks is not warranted or a proposed rule to list the species. The NMFS Office of Protected Resources has also received petitions to list whale, great hammerhead, dusky, and Pacific great white sharks under the ESA. NMFS is reviewing those requests to determine if the petitions contained present substantial scientific or commercial information indicating that the petitioned action may be warranted. We agree with the commenter that if some species of sharks are listed as endangered or threatened under the ESA, there could be changes to how the shark fishery operates and that economic value of a fishery is not considered in the context of the ESA.

*Comment 68:* One comment urged NMFS to try to work with Mexico and other countries, as well as the Department of State, regarding blacktip sharks.

*Response:* We are dedicated to working with other nations, particularly those with which we share a border, and within international organizations, to promote sustainable management practices of sharks, including blacktip sharks. We participate in annual bilateral meetings with Canada and Mexico, as well as annual ICCAT meetings and stock assessments to discuss management measures for shared stocks. With Mexico in particular, we aim to strengthen our coordination within the Gulf of Mexico and promote sustainable management of shared shark stocks. In SEDAR 29, we invited a Mexican scientist to

participate in the stock assessment process. The scientist provided data critical to the assessment of Gulf of Mexico blacktip sharks. We recognize that it is essential to work collaboratively when managing tunas, sharks, and other highly migratory species when stocks are shared and fished by both nations. We also work closely with our colleagues at the Department of State to promote cooperation in this area.

*Comment 69:* We need to continue investigating measures to minimize mortality after sharks are caught (particularly limits on gear deployment, soak time, and tending) as these hold promise for enhancing recovery of particularly sensitive and depleted shark species.

*Response:* We have considered alternative approaches to minimize shark mortality, including limits on gear deployment, hook type, soak type, and gear tending. We have found that limiting soak times and requiring gear tending may have safety-at sea implications, especially if fishing vessels are forced to retrieve fishing gear during unsafe sea conditions, and may reduce flexible fishing techniques. Additionally, enforcing restrictions on soak times is extremely resource-intensive as close monitoring is required to ensure compliance. Regulating quantity and type of hooks deployed (e.g. Selective Magnetic and Repellant Treated (SMART) hooks, circle hooks, or weak hooks), have also been considered as a method for reducing fishing mortality and contribute to rebuilding of overfished stocks. A SMART hook requirement may have potential economic impacts to the bottom longline and pelagic longline fisheries and ecological benefits for blacknose, sandbar, dusky, or scalloped hammerhead sharks have not been demonstrated. The effect of circle hooks is not the same for all species, and their conservation benefit for some species may be mixed (as discussed in Section 2.2 Alternatives Considered but not Further Analyzed in Chapter 2 of the FEIS). A weak hook alternative may protect some species of sub-adult sharks until they have had a chance to reproduce; however, because of the range in size at maturity among shark species, it may be difficult to discern which gauge hook to use to ensure these benefits. Therefore, because these hook options would not achieve the purpose of managing these fishery resources in a manner that maximizes resources sustainability, while minimizing, to the greatest extent possible, the socioeconomic impacts on affected

fisheries, they were not further analyzed.

### Changes From the Proposed Rule (77 FR 70552; November 26, 2012)

As described above, as a result of public comment and additional analyses, we have made several substantive changes in the final rule consistent with changes made between the DEIS and FEIS. As discussed previously, the primary change was the removal of the dusky shark measures into a separate proposed action for Amendment 5b to the 2006 Consolidated HMS FMP. This final rule implements Amendment 5a to the 2006 Consolidated HMS FMP and finalizes measures needed to rebuild sandbar sharks, end overfishing and rebuild scalloped hammerhead and Atlantic blacknose sharks, and establish a TAC, commercial quota, and recreational measures for Gulf of Mexico blacknose and blacktip sharks. Amendment 5b to the 2006 Consolidated HMS FMP will contain further analysis and consideration of management approaches, data sources, and available information that are needed for dusky sharks beyond those considered in the proposed rule.

The specific changes among the remaining management measures are outlined below.

1. **Final 2011 Data.** In the proposed rule, we used preliminary 2011 commercial data because the finalized data were not available at that time. Finalized 2011 commercial data are now available and are used in the FEIS and final rule. Specifically, the final 2011 dealer data changed the species landings percentage of the total LCS and SCS landings slightly; therefore, finalized quotas were updated appropriately. Additionally, the final 2011 logbook data changed the dead discard mortality estimates for hammerhead sharks.

2. **Quota Linkages.** We proposed several quota linkages: The Atlantic aggregated LCS and hammerhead shark quotas; the Gulf of Mexico aggregated LCS, hammerhead and blacktip shark quotas; and the blacknose and non-blacknose small coastal shark regional quotas. Based on public comment, we re-evaluated the quota linkage between the management groups. In the Gulf of Mexico region, the hammerhead and aggregated LCS quotas will be linked because directed shark fishermen frequently catch these species together when targeting LCS. The Gulf of Mexico blacktip shark quota will not be linked to the aggregated LCS or hammerhead shark quotas, mainly because aggregated LCS and hammerhead sharks are caught

in small amounts on trips targeting Gulf of Mexico blacktip sharks. We maintain the flexibility to close the Gulf of Mexico blacktip shark management group depending on several criteria in the final rule, which will ensure that bycatch of hammerhead sharks and aggregated LCS does not result in mortality that will exceed the TAC of either management group. The other proposed quota linkages did not change in this final rule.

3. **Inseason Quota Transfers.** In the proposed rule, we proposed allowing inseason or annual regional quota transfers for non-blacknose SCS quota because the non-blacknose SCS quota is being split between regions for management purposes and not because there are different stocks between the Atlantic and Gulf of Mexico regions. Based on public comment and because the scalloped hammerhead shark stock assessment was based on a single stock between the Atlantic and Gulf of Mexico regions, in the final rule, we will also allow for inseason or annual regional transfers of the hammerhead quota.

4. **Recreational Minimum Size.** We proposed to increase the recreational size limit to 96 inches fork length based on the size-at-maturity of dusky sharks. As described above, we are addressing dusky shark management measures in another rulemaking; therefore we are not finalizing the proposed increase to 96 inches fork length. Instead, as part of the rebuilding plan for scalloped hammerhead sharks implemented in this action, we are increasing the minimum size limit to 78 inches fork length for all hammerhead sharks based on the size-at-maturity for scalloped hammerheads and are maintaining the current size limit of 54 inches fork length for all other shark species, except for Atlantic sharpnose and bonnethead sharks.

5. **Mandatory Reporting of Hammerhead Sharks.** We proposed requiring mandatory reporting of all hammerhead sharks landed recreationally to NMFS through the non-tournament landing system. This final action would not require mandatory reporting of hammerhead sharks because we have determined that the existing surveys (Large Pelagics/Marine Recreational Information Program) are sufficient for immediate rebuilding purposes. Recreational shark reporting measures may be addressed in the upcoming dusky shark proposed action (Amendment 5b to the 2006 Consolidated HMS FMP).

### Commercial Fishing Season Notification

Pursuant to the measures being implemented in this final rule, the Gulf of Mexico regional base annual quotas will be as follows:

- Blacktip sharks = 256.6 mt dw;
- Aggregated LCS = 157.5 mt dw;
- Hammerhead sharks = 25.3 mt dw;
- Non-blacknose SCS = 45.5 mt dw;

and

- Blacknose sharks = 2.0 mt dw.

The Atlantic regional base quotas will be as follows:

- Aggregated LCS = 168.9 mt dw;
- Hammerhead sharks = 27.1 mt dw;
- Non-blacknose SCS = 176.1 mt dw;

and

- Blacknose sharks = 18.0 mt dw.

As described in the final rule that established the initial 2013 quotas based on the previous quotas (77 FR 75896, December 26, 2012), the quotas for the LCS and SCS management groups were not exceeded in 2012. As such, none of these regional base annual quotas need to be adjusted for overharvests.

However, as described in the December 2012 final rule, the non-blacknose SCS quota was not fully harvested in 2012, and because the species in that management group are not overfished and are not experiencing overfishing, we increased the initial 2013 quota by 107.6 mt dw (237,106 lb dw). In this final rule, we have split that increase based on the regional split described in the FEIS (79.4 percent in the Atlantic and 20.6 percent in the Gulf of Mexico), and adjusted the 2013 Atlantic and Gulf of Mexico regional non-blacknose SCS quotas accordingly. As such, the new final adjusted 2013 quotas are the same as the respective base quotas for all management groups except for the non-blacknose SCS management group, which is adjusted as described above. The final adjusted 2013 quotas are as follows.

For the Gulf of Mexico region:

- Blacktip sharks = 256.6 mt dw (565,700 lb dw);
- Aggregated LCS = 157.5 mt dw (347,317 lb dw);
- Hammerhead sharks = 25.3 mt dw (55,722 lb dw);
- Non-blacknose SCS = 67.7 mt dw (149,161 lb dw); and
- Blacknose sharks = 2.0 mt dw (4,513 lb dw).

For the Atlantic region:

- Aggregated LCS = 168.9 mt dw (372,552 lb dw);
- Hammerhead sharks = 27.1 mt dw (59,736 lb dw);
- Non-blacknose SCS = 261.5 mt dw (576,484 lb dw); and
- Blacknose sharks = 18.0 mt dw (39,749 lb dw).

As of June 14, 2013, based on dealer reports, the following landings have been reported in the Gulf of Mexico region:

- Blacktip sharks = 202.8 mt dw (79% of quota);
- Aggregated LCS = 115.4 mt dw (73% of quota);
- Hammerhead sharks = 7.7 mt dw (30% of quota);
- Non-blacknose SCS = 21.1 mt dw (31% of quota); and
- Blacknose sharks = 0.5 mt dw (23% of quota).

The landings in the Atlantic region are as follows:

- Aggregated LCS = 68.7 mt dw (41% of quota);
- Hammerhead sharks = 9.2 mt dw (34% of quota);
- Non-blacknose SCS = 40.1 mt dw (15% of quota); and
- Blacknose sharks = 8.2 mt dw (46% of quota).

Dealer reports through June 14, 2013, indicate that 202.8 mt dw or 79 percent of the new final adjusted quota for the Gulf of Mexico blacktip shark management group has been landed. Projections using dealer reports indicate that using catch rates from May 1, 2013 to June 1, 2013, that 83.2 percent of the available Gulf of Mexico blacktip shark quota could be landed by July 1, 2013. Accordingly, NMFS is closing the commercial Gulf of Mexico blacktip shark management group as of 11:30 p.m. local time July 7, 2013. This closure does not affect any other shark management groups.

During the closure, retention of sharks from the Gulf of Mexico blacktip shark management group is prohibited for persons fishing aboard vessels issued a commercial shark limited access permit under § 635.4, unless the vessel is properly permitted to operate as a charter vessel or headboat for HMS and is engaged in a for-hire trip, in which case the recreational retention limits for sharks and “no sale” provisions apply (§ 635.22(a) and (c)). A shark dealer issued a permit pursuant to § 635.4 may not purchase or receive Gulf of Mexico blacktip sharks from a vessel issued an Atlantic shark limited access permit (LAP), except that a permitted shark dealer or processor may possess Gulf of Mexico blacktip sharks that were harvested, off-loaded, and sold, traded, or bartered, prior to the effective date of the closure and were held in storage. Under this closure, a shark dealer issued a permit pursuant to § 635.4 may, in accordance with state regulations, purchase or receive Gulf of Mexico blacktip sharks if the sharks were harvested, off-loaded, and sold, traded, or bartered from a vessel that fishes only

in state waters and that has not been issued an Atlantic Shark LAP, HMS Angling permit, or HMS Charter/Headboat permit pursuant to § 635.4.

#### Classification

The Assistant Administrator for Fisheries (AA) determined that Amendment 5a to the 2006 Consolidated HMS FMP is necessary for the conservation and management of the Atlantic shark fisheries and that it is consistent with the Magnuson-Stevens Act and other applicable laws.

Pursuant to 5 U.S.C. 553(d)(3), the AA has determined that there is good cause to waive the 30-day delay in effective date for the revised commercial quotas for Gulf of Mexico blacktip sharks. This final rule will implement, among other management measures, new commercial quota and management groups and revised quotas. A delay in effectiveness of this rule for these revised quotas and management groups would cause negative ecological impacts on the fishery resource because the newly established rebuilding plans and TACs will be exceeded. As described above, the landings for the Gulf of Mexico blacktip shark management group are projected to reach 80 percent of the new final adjusted 2013 quotas by July 1, 2013. Given these landings, we need to close the Gulf of Mexico blacktip shark management group to ensure that the new final adjusted 2013 quotas are not overharvested in 2013. The situation where we implement new management group quotas then close a management group immediately has not happened in the past. In past rulemakings of this scope, the shark fishery has generally remained closed for the entire year until the new management groups and quotas were implemented. This year, we decided to open the fishery in order to provide equitable opportunities across all regions. In the final rule establishing the 2013 fishing seasons, we notified constituents that the quotas could be changing as a result of Amendment 5 and that any changes would be made in this final rule. Generally, the LCS shark fisheries have remained open for only a few months for the entire year. The fisheries this year have remained open for six months (since January 1, 2013). Thus, because of the notice in the final specifications rule and because of normal fishing season length practices, the fishermen who could be affected were aware that we could implement the new management group quotas and potentially close the fisheries in this rulemaking.

For this reason, the AA finds good cause to waive the 30-day delay in effectiveness of the new final adjusted

2013 commercial quotas for Gulf of Mexico blacktip sharks.

We prepared an FEIS for this Amendment 5a to the 2006 Consolidated HMS FMP. The FEIS was filed with the Environmental Protection Agency on April 19, 2013. A notice of availability was published on April 26, 2013 (78 FR 24743). In approving Amendment 5a to the 2006 Consolidated HMS FMP on June 7, 2013, we issued a ROD identifying the selected alternative suite. A copy of the ROD is available from the HMS Management Division (see **ADDRESSES**).

This final rule has been determined to be not significant under EO 12866.

#### Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) requires that Federal agency activities that have reasonably foreseeable coastal effects be consistent to the maximum extent practicable with the enforceable policies of affected federally-approved state coastal management programs (CMPs). This rule implements Alternative Suite A6 from the FEIS, which is a new alternative that largely represents a hybrid of measures previously proposed in the DEIS under Alternative Suites A2 and A3, as well as minor adjustments resulting from the application of final 2011 data. Thus, we have determined that this rule will be implemented in a manner consistent to the maximum extent practicable with the enforceable policies of the coastal states in the Atlantic, Gulf of Mexico, and Caribbean that have federally approved CMPs. In December 2012, we provided all coastal states along the eastern seaboard and the Gulf of Mexico (21 states), including Puerto Rico and the U.S. Virgin Islands, with a copy of the proposed rule and DEIS for Amendment 5 to the 2006 Consolidated HMS FMP. Under 15 CFR 930.41, states and/or U.S. territories have 60 days to respond after the receipt of the consistency determination and supporting materials. States can request an extension of up to 15 days. If a response is not received within those time limits, NMFS can presume concurrence (15 CFR 930.41 (a)). Nine states replied within the response time period that the proposed regulations were consistent with the enforceable policies of their CMPs (Alabama, Delaware, Florida, Louisiana, Mississippi, New Hampshire, New Jersey, Rhode Island, and South Carolina). Another nine states (Connecticut, Maine, Maryland, Massachusetts, New York, South Carolina, Texas, U.S. Virgin Islands, and Puerto Rico) did not respond within the response time period, nor did they

request an extension in the comment period; therefore, we presume their concurrence. The State of Georgia replied that they concur with our consistency determination with the condition that changes are made to the rule or incorporate other state agency comments. The State of North Carolina concurred with our consistency determination but also stated that the proposed action would have negative impacts on North Carolina fishermen and we should incorporate the North Carolina Division of Marine Fisheries' (NCDMF's) suggestions and concerns to the greatest extent practicable. The Commonwealth of Virginia indicated that Alternative Suites A2, A3, and A4 were consistent with its CMP, noted that Alternative Suites A2 and A3 would severely restrict recreational fishermen's access to other species of LCS, and that Alternative Suite A3 would have the greatest potential to allow Virginia commercial and recreational fishermen access to a portion of the annual quota of the managed shark management groups while still adequately protecting those species of shark identified as overfished.

#### A. Response to the State of Georgia

The State of Georgia, in its February 12, 2013, CZMA consistency letter to NMFS, stated that "portions of the preferred Alternative Suite A2 would place undue burdens on Georgia's recreational shark fishery when there are other alternatives that would meet NMFS's objectives and reduce coastal use impacts." The State of Georgia also noted that rather than linking quotas, "bycatch and post-release mortality should be considered when catch levels are determined" and that "whenever possible single species management should be considered until appropriate multispecies assessments can be developed." The State of Georgia concurred with NMFS' consistency determination on the proposed rule with the condition that the following changes be made to the rule. Georgia would prefer Alternative Suite A3 for TAC and commercial quota measures since no quota linkage would fulfill the intended goal of this amendment and reduce impacts to Georgia's fishermen. The State of Georgia also stated that it did not support the increase to the shark minimum recreational size limit to 96 inches fork length stating that this increased size would eliminate recreational shark fishing in Georgia. The State of Georgia suggested that NMFS prohibit the take of all ridgeback sharks and implement a fine for landings of any prohibited species. In the Alternative Suite A2, the State of

Georgia would like NMFS to postpone mandatory reporting of hammerhead sharks until a process has been fully developed, and postpone education and outreach for prohibited shark identification unless Federal funds are used to support this program.

While we acknowledge the potential impacts to Georgia fishermen, under the Magnuson-Stevens Act's (16 U.S.C. 1801 *et seq.*) National Standards, we are required to, among other things, implement conservation and management measures to prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery; base actions upon the best scientific information available; manage stocks throughout their range to the extent practicable; minimize adverse economic impacts on fishing communities to the extent practicable; and minimize bycatch and bycatch mortality to the extent practicable (16 U.S.C. 1851(a)(1), (2), (3), (8), and (9)). In the preparation of this final action, we performed an extensive analysis on quota linkages for shark species that are caught together to determine which quotas would likely trigger management group closures. This analysis concluded that the aggregated LCS quota would likely be reached before the hammerhead shark quota in the Atlantic region based on species landings per trip from the logbook data. Opening and closing these two management groups concurrently would strengthen the conservation benefits of either group's quota closure. Furthermore, SCS fishermen have been able to avoid blacknose sharks to fully retain the non-blacknose SCS quota since Amendment 3 to the 2006 Consolidated HMS FMP in 2008. Regarding bycatch and post-release mortality, we already account for fishing mortality of sharks across multiple fisheries in the TACs and commercial quota estimates for sharks, consistent with the State of Georgia's recommendation.

During the comment period for Amendment 5 to the 2006 Consolidated HMS FMP, we received numerous comments on the proposed dusky shark measures, some requesting consideration of approaches to dusky shark fishery management that were significantly different from those we analyzed in the proposed rule and DEIS. After reviewing all of the comments received, we are not proceeding at this time with the dusky shark measures as proposed and will address the dusky shark overfishing and rebuilding plan in an upcoming proposed separate action. Therefore, we will not be implementing the 96 inches fork length minimum size as it was designed for dusky shark

rebuilding, consistent with the State of Georgia's recommendation. In the FEIS, the preferred Alternative Suite A6 will establish a rebuilding plan for scalloped hammerhead sharks, which includes an increase in the minimum size limit of all recreationally landed hammerhead sharks to 78 inches fork length. In addition, we will increase outreach to the recreational community regarding the identification of prohibited shark species in recreational fisheries. This outreach could be in the form of updated shark identification placards for authorized and prohibited species, and outreach to state agencies and fishing tournaments on the current recreational shark regulations. This outreach would not impose costs on state agencies as NMFS will produce and distribute the placards.

The minor adverse economic and social impacts resulting from the quota linkage and recreational measures do not outweigh the ecological benefits for these shark species. Therefore, we are implementing these quota linkage and recreational measures in the shark fishery. Because the recent stock assessments were determined to be the best scientific data available, this finding is consistent with National Standard 2, which requires that management measures be based on the best scientific information available. Based on the information in this amendment and combined with the Magnuson-Stevens Act legal requirements noted in this paragraph, under the CZMA and NOAA regulations, we find that the preferred Alternative Suite A6 and this final action are consistent to the maximum extent practicable with Georgia's CMP enforceable policies.

#### B. Response to the State of North Carolina

The State of North Carolina, in its January 17, 2013, CZMA consistency letter to NMFS, stated that the proposed actions are consistent, to the maximum extent practicable, with the relevant enforceable policies of North Carolina's CMP. Though the State of North Carolina concurred with the proposed action, they encouraged us to incorporate the suggestions and concerns of the NCDMF to the greatest extent possible. During the comment period for the DEIS, we received comments from the NCDMF. NCDMF did not support quota linkage for the LCS and SCS fisheries because having one species as a trigger for closure can result in reduced fishing opportunity and have significant economic consequences. In this final rule, we are linking the quotas of shark species and

management groups that are caught together to prevent incidental catch mortality from exceeding the TAC, consistent with National Standard One. The aggregated LCS and hammerhead shark quotas and the blacknose and non-blacknose SCS quotas will be linked in each region. The Gulf of Mexico blacktip shark quota will not be linked and will open and close independent of the aggregated LCS and hammerhead management groups. In addition, we are allowing in-season quota transfers between regions for hammerhead shark and non-blacknose SCS management groups. NCDMF was also concerned that the increase in the recreational minimum size to 96 inches fork length would eliminate almost all recreational shark harvest, and recommended a slot limit for recreationally harvested shark species. The final action in this rule will not increase the recreational minimum size to 96 inches fork length, consistent with the NCDMF's recommendation, and will only increase the recreational size limit for all landed hammerhead sharks to provide additional protection for the scalloped hammerhead shark stock, which is overfished and is experiencing overfishing. As described above, all of the dusky shark measures will be addressed in a separate rulemaking. Therefore, we find the preferred Alternative Suite A6 and this final action to be consistent to the maximum extent practicable with the enforceable policies of the State of North Carolina's CMP.

### C. Response to the Commonwealth of Virginia

The Commonwealth of Virginia, in its January 17, 2013, CZMA consistency letter to NMFS, stated that, while the Alternative Suites A2 and A3 have measures severely restricting recreational fishermen access to other species of LCS, these alternative suites are consistent with the enforceable fisheries management policy of the Virginia CMP. The State of Virginia finds that Alternative Suite A3 would have the greatest potential to allow Virginia commercial and recreational fishermen access to a portion of the annual quota of the managed shark management groups, while still adequately protecting those species of shark identified as being overfished. Additionally, they support additional outreach to all fishermen to improve the identification of sharks. Based on public comment, we have changed the preferred alternative suite. In the FEIS, preferred Alternative Suite A6 is a combination of management measures from Alternative Suites A2 and A3. The

State of Virginia's CZMA consistency letter noted that Alternative Suite A2 and A3 would be consistent with the state's CMP. Therefore, we find the actions in the FEIS to be consistent with the State of Virginia's CMP enforceable policies, to the maximum extent practicable.

### Summary of the Final Regulatory Flexibility Analysis

A final regulatory flexibility analysis (FRFA) was prepared for this rule. The FRFA incorporates the Initial Regulatory Flexibility Analysis (IRFA), a summary of the significant issues raised by the public comments in response to the IRFA, our responses to those comments, and a summary of the analyses completed to support the action. The full FRFA is available from us (see ADDRESSES). A summary is provided below.

#### A. Statement of the Need for and Objectives of the Final Rule

Section 604(a)(1) of the Regulatory Flexibility Act (RFA) requires a succinct statement of the need for and objectives of the rule. Chapter 1 of the FEIS and the proposed rule fully describes the need for and objectives of this final rule. The management goals and objectives of this final action are to provide for the sustainable management of shark species under authority of the Secretary consistent with the requirements of the Magnuson-Stevens Act and other statutes which may apply to such management, including the ESA, MMPA, and ATCA. The Magnuson-Stevens Act mandates that the Secretary provide for the conservation and management of HMS through development of an FMP for species identified for management and to implement the FMP with necessary regulations. In addition, the Magnuson-Stevens Act directs the Secretary, in managing HMS, to prevent overfishing of species while providing for their optimum yield on a continuing basis and to rebuild fish stocks that are considered overfished. The management objectives of this final action are to amend the 2006 Consolidated HMS FMP to rebuild and end overfishing of both the scalloped hammerhead and Atlantic blacknose shark stocks, maintain rebuilding for sandbar sharks, and achieve optimum yield and provide an opportunity for the sustainable harvest of Gulf of Mexico blacknose and Gulf of Mexico blacktip sharks.

#### B. A Summary of Significant Issues Raised by the Public Comments in Response to the IRFA

Section 604(a)(2) of the RFA requires a summary of the significant issues raised by the public comments in response to the IRFA, a summary of the assessment of the Agency of such issues, and a statement of any changes made in the rule as a result of such comments. NMFS received many comments on the proposed rule and draft Amendment 5 to the 2006 Consolidated HMS FMP during the public comment period. A summary of these comments and the Agency's responses, including changes as a result of public comment, are included above. For general economic comments, see section F in "Responses to Comments." NMFS did not receive comments specifically on the IRFA.

#### C. A Description and an Estimate of the Number of Small Entities to Which the Rule Will Apply

Section 604(a)(3) of the RFA requires a description and estimate of the number of small entities to which the final rule would apply. The Small Business Administration has defined a "small" fishing entity as one with average annual receipts of less than \$4.0 million; a small charter/party boat entity is one with average annual receipts of less than \$7.0 million; a small wholesale dealer as one with 100 or fewer employees; and a small seafood processor as one with 500 or fewer employees (13 CFR 121.201). Under these standards, we consider all Atlantic HMS permit holders subject to this rulemaking to be small entities.

The commercial measures in this final action will apply to the 486 commercial shark permit holders in the Atlantic shark fishery based on an analysis of permit holders as of October 2012 (NMFS 2012). Of these permit holders, 215 have directed shark permits and 271 hold incidental shark permits. Not all permit holders are active in the fishery in any given year. We estimate that between 2008 and 2011, approximately 108 vessels with directed shark permits and 71 vessels with incidental shark permits landed sharks. These measures could also affect 92 shark dealers. A further breakdown of these permit holders is provided in Amendment 5a to the 2006 Consolidated HMS FMP.

The recreational measures in this final action will impact HMS angling category and HMS charter/headboat category permit holders, as well as HMS tournaments. In general, the HMS charter/headboat category permit holders can be regarded as small businesses, while HMS angling category

permits are typically obtained by individuals who are not considered small entities for purposes of the RFA. While HMS tournaments are not themselves small businesses, many of them are organized by small businesses as promotional events. In 2012, 4,129 vessels obtained HMS charter/headboat category permits, and 235 HMS tournaments were registered. Chapter 6 of the FEIS for Amendment 5a to the 2006 Consolidated HMS FMP provides the overall historic trend in the number of charter/headboat permit holders and registered HMS tournaments from 2008 to 2012. It is unknown what portion of HMS charter/headboat permit holders actively participate in shark fishing or market shark fishing services for recreational anglers.

We have determined that the rule would not likely affect any small governmental jurisdictions. More information regarding the description of the fisheries affected, and the categories and number of permit holders can be found in Amendment 5a to the 2006 Consolidated HMS FMP.

#### **D. A Description of the Projected Reporting, Record-keeping, and Other Compliance Requirements of the Final Rule**

Section 604(a)(4) of the RFA requires a description of the projected reporting, record-keeping, and other compliance requirements of the final rule, including an estimate of the classes of small entities that would be subject to the requirements of the report or record. The preferred commercial and recreational measures in Alternative Suite A6 of the FEIS will not introduce any new reporting or record-keeping requirements.

#### **E. A Description of the Steps Taken To Minimize the Significant Economic Impact on Small Entities**

Section 604(a)(5) of the RFA requires a description of the steps the Agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and the reason that each one of the other significant alternatives to the rule considered by the Agency that affect small entities was rejected. These impacts are discussed below and in the FEIS for Amendment 5a to the 2006 Consolidated HMS FMP. Additionally, the RFA (5 U.S.C. 603 (c) (1)–(4)) lists four general categories of “significant” alternatives that could assist an agency in the development of significant alternatives. These categories

of alternatives are: Establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; use of performance rather than design standards; and, exemptions from coverage of the rule for small entities.

In order to meet the objectives of this rule, consistent with Magnuson-Stevens Act and ESA, we cannot exempt small entities or change the reporting requirements only for small entities because all the entities affected are considered small entities. Thus, there are no alternatives discussed that fall under the first and fourth categories described above. We do not know of any performance or design standards that would satisfy the aforementioned objectives of this rulemaking while, concurrently, complying with the Magnuson-Stevens Act. Thus, there are no alternatives considered under the third category. As described below, we analyzed several different alternatives in this rulemaking and provide rationale for identifying the preferred alternative to achieve the desired objective.

The alternatives considered and analyzed have been grouped into six alternative suites that address various shark TACs, quotas, quota linkages, and recreational measures. Alternative Suite A1 would maintain the current Atlantic shark fishery (no action). Alternative Suite A2 would establish new species management groups by regions, adjust LCS and SCS quotas, and link appropriate quotas. Alternative Suite A3 would establish new species management groups by region, adjust LCS and SCS quotas with no quota linkages, and increase the hammerhead shark minimum recreational size to 78 inches fork length. Alternative Suite A4 would establish new species management groups by region, adjust LCS and SCS quotas, and establish species-specific recreational shark quotas. Alternative Suite A5 would close all commercial and recreational shark fisheries. Finally, Alternative Suite A6, the preferred alternative, would establish new species management groups by regions, adjust LCS and SCS quotas, link appropriate quotas, and increase the hammerhead shark minimum recreational size to 78 inches fork length. Additionally, Alternative Suites A2, A3, and A6 would also require the Agency to conduct more outreach on shark identification to recreational anglers and Charter/Headboat permit holders, which could lead to reduced landings of

prohibited species, but we anticipate that any reductions will be minimal.

The potential impacts these alternatives may have on small entities have been analyzed and are discussed in the following sections. The preferred alternative in the FEIS is Alternative Suite A6. The economic impacts that would occur under this preferred alternative suite was compared with the other alternatives to determine if economic impacts to small entities could be minimized while still accomplishing the stated objectives of this rule.

#### **A. Alternative Suite A1**

Alternative Suite A1 (status quo) would not change current management of the Atlantic shark fisheries. When taken as a whole, Alternative Suite A1 would likely have neutral economic impacts on small entities in the short-term because the fisheries would continue to operate as status quo. In the long-term, it could cause direct minor adverse economic impacts because we would need to make to changes to the fishery to address the overfishing and overfished stocks. Since Alternative Suite A1 does not address the overfished and/or overfishing determination based on recent stock assessments, we do not prefer this alternative at this time.

##### *1. Scalloped Hammerhead Sharks*

From 2008 through 2011, approximately 22 vessels with directed shark permits had hammerhead shark landings, while approximately 2 vessels with incidental shark permits had hammerhead shark landings in the Atlantic region. In the Gulf of Mexico region, approximately 12 vessels with directed shark permits had hammerhead shark landings, while 1 vessel with an incidental shark permit had hammerhead shark landings. Spread amongst the directed and incidental shark permit holders that landed scalloped hammerhead in the Atlantic region, the average directed shark permit holder earned \$1,443 in average annual gross revenues, and the average incidental shark permit holder earned \$491 in average annual gross revenues from scalloped hammerhead shark landings. Divided evenly amongst the directed and incidental shark permit holders that landed scalloped hammerhead in the Gulf of Mexico region, the average directed shark permit holder earned \$3,303 in average annual gross revenues, and the incidental shark permit holder earned \$40 in annual gross revenues from scalloped hammerhead shark landings. Scalloped hammerhead sharks compose

a small portion of total non-sandbar LCS landings; an annual average of 7.3 percent of non-sandbar LCS landings are scalloped hammerhead sharks in the Atlantic region and 4.3 percent on the Gulf of Mexico region. Scalloped hammerhead sharks are overfished with overfishing occurring, and the stock could become increasingly unproductive under the status quo, therefore we do not prefer this alternative at this time.

## 2. Large Coastal Sharks

From 2008 through 2011, approximately 43 vessels with directed shark permits had non-sandbar LCS landings, while approximately 14 vessels with incidental shark permits had non-sandbar LCS landings in the Atlantic region. In the Gulf of Mexico region, approximately 18 vessels with directed shark permits had non-sandbar LCS landings, while approximately 6 vessels with incidental shark permits had non-sandbar LCS landings. It is estimated that these permit holders would be the most affected by management measures proposed for non-sandbar LCS. Spread amongst the directed and incidental shark permit holders that landed non-sandbar LCS in the Atlantic region, the average directed shark permit holder earned \$15,200 in average annual gross revenues, and the average incidental shark permit holder earned \$1,444 in average annual gross revenues from non-sandbar LCS landings. Spread amongst the directed and incidental shark permit holders that landed non-sandbar LCS in the Gulf of Mexico region, the average directed shark permit holder earned \$58,920 in average annual gross revenues, and the average incidental shark permit holder earned \$1,786 in average annual gross revenues from non-sandbar LCS landings.

## 3. Gulf of Mexico Blacktip Sharks

From 2008 through 2011, approximately 15 vessels with directed shark permits had blacktip shark landings, while approximately 2 vessels with incidental shark permits had blacktip shark landings in the Gulf of Mexico region. Spread amongst the directed and incidental shark permit holders that landed blacktip shark, the average directed shark permit holder earned \$41,532 in average annual gross revenues, and the average incidental shark permit holder earned \$1,251 in average annual gross revenues from blacktip shark landings.

## 4. Blacknose Sharks

Since Amendment 3 was implemented in 2010, an average of

approximately 25 vessels with directed shark permits had blacknose shark landings, while approximately 3 vessels with incidental shark permits had blacknose shark landings. It is estimated that these permit holders would be the most affected by management measures proposed for blacknose sharks. Spread amongst the directed and incidental shark permit holders that landed blacknose, the average directed shark permit holder earned \$2,075 in average annual gross revenues, and the average incidental shark permit holder earned \$353 in average annual gross revenues from blacknose shark landings.

## 5. Non-Blacknose Small Coastal Sharks

Since Amendment 3 was implemented in 2010, an average of approximately 41 vessels with directed shark permits had non-blacknose shark landings, while approximately 13 vessels with incidental shark permits had non-blacknose SCS landings. It is estimated that these permit holders would be the most affected by management measures proposed for non-blacknose SCS. Spread amongst the directed and incidental shark permit holders that landed non-blacknose SCS, the average directed shark permit holder earned \$13,107 in average annual gross revenues, and the average incidental shark permit holder earned \$844 in average annual gross revenues from non-blacknose SCS landings.

## 6. Quota Linkages

Because Alternative Suite A1 does not create any new species or management group quotas, new quota linkages would be unnecessarily. Consequently, there are no additional direct or indirect socioeconomic impacts in the short or long-term beyond those discussed for scalloped hammerhead, blacktip sharks, non-blacknose SCS, and blacknose sharks.

## 7. Recreational Measures

Under Alternative Suite A1, there would be no changes to the existing recreational retention limits for all species. Therefore, small entities, such as charter/headboat operators and tournaments that target sharks, would not experience any change in economic impact under this alternative.

## B. Alternative Suite A2

Alternative Suite A2 would establish new species management groups by regions, adjust LCS and SCS quotas, and link appropriate quotas. When taken as a whole, Alternative Suite A2 would likely have direct short and long-term minor adverse economic impacts. These impacts would mostly affect fishermen

targeting scalloped hammerhead and blacknose sharks because the quotas would restrict the amount of sharks that could be landed some years. These fishermen are likely to adapt to the new regulations by fishing in other fisheries, or change their fishing habitats. Neutral economic impacts are expected for fishermen targeting the aggregated LCS and non-blacknose SCS management groups because the new proposed quotas are based on the average landings for each species. Quota linkages could have moderate adverse economic impacts based on the fishing rate of each linked shark quota in some years, but not all years. Furthermore, failure to alter recreational measures under this alternative could lead to long-term adverse economic impacts due to continued overfishing.

## 1. Scalloped Hammerhead Sharks

Under Alternative Suite A2, we would establish an Atlantic and a Gulf of Mexico hammerhead shark quota (including scalloped, smooth, and great hammerhead sharks) using the methodology outlined in Chapter 2 of the FEIS. Compared to average landings the quotas could result in a fishery-wide increase in revenue of \$1,719 in the Atlantic region and \$2,005 in the Gulf of Mexico region. However, because hammerhead sharks are currently counted against the regional non-sandbar LCS quotas, which are much higher than the regional hammerhead shark quotas in Alternative Suite A2, the opportunities to land hammerhead sharks under this alternative suite would be reduced. Fishing activities could be more constrained in future years under the quotas as compared to the historical range of landings. Therefore, impact on the annual revenues of individual vessels actively involved in the fishery are anticipated to be neutral in most years, but minor impacts may be experienced in years of high landings.

## 2. Large Coastal Sharks

Alternative Suite A2 would establish new, separate quotas for scalloped hammerhead sharks and Gulf of Mexico blacktip sharks, necessitating removal of these species from the non-sandbar LCS management group (which will then be renamed "aggregated LCS" in both the Atlantic and Gulf of Mexico regions). The aggregated LCS quota would be based on average annual landings of the remaining species (see Chapter 2 of the FEIS for annual landings of remaining species), therefore, those species composing the aggregated LCS management group would not experience a change in fishing pressure

and landings would be capped at recent levels. For these reasons, economic impacts to small entities resulting from this portion of Alternative Suite A2 are expected to be neutral.

### 3. Gulf of Mexico Blacktip Sharks

Alternative suite A2 would establish a new, separate quota for Gulf of Mexico blacktip sharks based on current average landings. This alternative suite's blacktip shark action would likely result in neutral economic impacts to small entities. As discussed in Chapter 1 of the FEIS, based on the SEDAR 29 Gulf of Mexico blacktip shark stock assessment, we have determined that the Gulf of Mexico blacktip shark stock is not overfished and not experiencing overfishing (NMFS 2011). These results indicate the Gulf of Mexico blacktip shark stock can sustain current fishing levels and should not result in any additional impacts to small entities.

### 4. Blacknose Sharks

Alternative Suite A2 would separate blacknose sharks into the Atlantic and Gulf of Mexico regions as suggested in the SEDAR 21 stock assessment (NMFS 2011). These alternatives would increase the blacknose shark landings in each region. Average annual gross revenues for the blacknose shark landings for the Atlantic region would increase from \$50,501 under the No Action alternative to \$54,854 under Alternative Suite A2. Although, because the blacknose shark quota for the Atlantic region would be less than the current overall blacktip shark quota (19.9 mt dw), there could be some minor, adverse socioeconomic impacts associated with the reduced opportunities to land blacknose sharks. We anticipate that directed and incidental shark permit holders would experience neutral direct socioeconomic impacts in the short- and long-term as blacknose sharks are not the targeted shark species for SCS fishermen. Average annual gross revenues for the blacknose shark landings for the Gulf of Mexico region would decrease slightly from \$5,645 under the No Action alternative to \$5,641 under Alternative Suite A2. NMFS anticipates these directed and incidental shark permit holders would experience minor economic impacts since the new Gulf of Mexico blacknose shark quota is consistent with current landings. In the short-term, lost revenues would be moderate for the 20 directed shark permit and 1 incidental shark permit holders that land blacknose sharks in the Atlantic region, and the 5 directed shark and the 2 incidental shark permits

that land blacknose sharks in the Gulf of Mexico.

### 5. Non-Blacknose Small Coastal Sharks

Alternative Suite A2 would establish regional quotas for non-blacknose SCS based on the landings since Amendment 3 was implemented in 2010 (NMFS 2010). In the Atlantic, an average of approximately 35 vessels with directed shark permits had non-blacknose shark landings, while approximately 9 vessels with incidental shark permits had non-blacknose SCS landings. In the Gulf of Mexico, an average of approximately 5 vessels with directed shark permits had non-blacknose shark landings, while approximately 2 vessels with incidental shark permits had non-blacknose SCS landings since Amendment 3 was implemented in 2010. Under the Alternative Suite A2, there would be neutral economic impacts to directed and incidental shark permit holders as the average annual gross revenues from non-blacknose SCS landings would be the same as the status quo in the short- and long-term. Fishermen would be expected to operate in the same manner as the status quo in the short-term. However, this alternative suite could have minor negative economic impacts on fishermen if fishing effort increases for non-blacknose SCS. The fishery has never filled the entire quota established for the fishery in 2010, but that could change with a smaller regional quota and if fishermen are displaced from other fisheries.

### 6. Quota Linkages

The quota linkages under this alternative suite could have short and long-term moderate adverse economic impacts. Quota linkages are explicitly designed to concurrently close multiple shark management groups, regardless of whether all the linked quotas are filled. This provides protection against incidental capture for species for which the quota has been reached, but it could also preclude fishermen from harvesting the entirety of each of the linked quotas. A quantitative analysis of the economic impact is not possible without comparing the rates of hammerhead shark, blacktip shark, and aggregated LCS catch and without knowing the extent to which fishermen can avoid hammerhead sharks. However, a qualitative analysis can provide insight on the possibility of adverse socioeconomic impacts. Under Alternative Suite A2, both the hammerhead shark and aggregated LCS management groups would close when landings of either reaches or is expected to reach 80 percent of the quota. If hammerhead shark landings reach 80

percent of the quota, the aggregated LCS management group would close, regardless of what portion of the quota has been filled. If the entire aggregated LCS management group has not been harvested, the fishery would not realize the full level of revenues possible under the established quota. However, given that the hammerhead quota for the Atlantic region is larger than average landings of hammerhead sharks in the Atlantic region by a little over than 2,000 lb dw and that the Atlantic aggregated LCS quota is not changing from average landings, we do not expect either quota to reach or be projected to reach 80 percent significantly faster than the other quota as a result of this alternative suite. A similar situation could occur in the Gulf of Mexico region under Alternative Suite A2 where both the hammerhead shark and blacktip shark quotas would be linked to the aggregated LCS quota. In the Gulf of Mexico the hammerhead, Gulf of Mexico blacktip, and aggregated LCS management groups would close when landings of any one reaches or is expected to reach 80 percent of its quota. However, given that the hammerhead quota for the Gulf of Mexico region is larger than average landings of hammerhead sharks in the Gulf of Mexico region by a little over than 2,000 lb dw and that the Gulf of Mexico aggregated LCS and blacktip quotas are not changing from average landings, we do not expect either quota to be reach or be projected to reach 80 percent significantly faster than the other quotas as a result of this alternative suite.

The blacknose shark and non-blacknose SCS socioeconomic impacts would be the same as the LCS since there would be similar scenarios with the quota linkage by species and region. In addition, we would allow inseason quota transfers between non-blacknose SCS regions. This would have minor beneficial economic impacts for the fishery as the non-blacknose SCS quota would not be the limiting factor. Consequently, the quota linkages proposed under this Alternative Suite could have moderate adverse economic impacts, but will likely have neutral impacts most years.

### 7. Recreational Measures

Under Alternative Suite A2, there would be no changes to the existing recreational retention limits for all species. Therefore, small entities, such as charter/headboat operators and tournaments that target sharks, would not experience any change in economic impact under this alternative. However, continued overfishing of selected shark

species could lead to long-term adverse economic impacts.

### C. Alternative Suite A3

Alternative Suite A3 would establish new species management groups by regions, adjust LCS and SCS quotas, and increase the hammerhead shark minimum recreational size to 78 inches fork length. When taken as a whole, Alternative Suite A3 would likely have moderate adverse economic impacts on small entities. These impacts would mostly affect fishermen catching hammerhead and blacknose sharks. The hammerhead shark quota would be based on the scalloped hammerhead shark TAC and would potentially reduce hammerhead shark landings in years of high landings. The blacknose shark quota in the Atlantic would be reduced, while the Gulf of Mexico blacknose TAC would be insufficient to allow for commercial or recreational harvest due to discards in other fisheries. Recreational management measures would affect fishermen who catch hammerhead sharks since the increased size limit would result in more hammerhead sharks having to be released under this alternative suite. In addition, the lack of quota linkages would allow fishermen to fully harvest all of the quotas. While this alternative suite might have more beneficial direct economic impacts than preferred Alternative Suite A6, the ecological impacts would be adverse and would not achieve the objectives and needs for this rulemaking.

#### 1. Scalloped Hammerhead Sharks

Under Alternative Suite A3, NMFS would remove hammerhead sharks from the non-sandbar LCS quota and establish a separate hammerhead shark quota for the three species of large hammerhead sharks (scalloped, smooth, and great hammerhead sharks), similar to Alternative Suites A2 and A6. In contrast to Alternative Suites A2 and A6, however, the hammerhead shark quota under Alternative Suite A3 would not be split between the Atlantic and Gulf of Mexico regions; rather, there would be one hammerhead shark quota across both regions. Although this difference could create some administrative difficulties, it is unlikely to alter the economic impacts from Alternative Suites A2 or A6's minor adverse economic impacts. Alternative Suites A2 and A6 would split the quota between the two regions based on historical landings; therefore, even though there would be one hammerhead shark quota under Alternative Suite A3, a similar breakdown of landings would likely occur.

#### 2. Large Coastal Sharks

Non-sandbar LCS management measures under Alternative Suite A3 are identical to those under Alternative Suites A2 and A6. See the Large Coastal Shark section of Alternative Suite A6 for more details on impacts.

#### 3. Gulf of Mexico Blacktip Sharks

Alternative Suite A3 would create a separate Gulf of Mexico blacktip shark TAC and commercial quota, by increasing the TAC calculated in Alternative Suites A2 and A6 by 30 percent, which is based on the current landings percentage of Gulf of Mexico blacktip sharks. This increase would result in a commercial quota of 380.6 mt dw (839,090 lb dw), which is a 48 percent increase from average Gulf of Mexico blacktip shark landings from 2008–2011 (256.6 mt dw; 565,700 lb dw). This increase would increase average ex-vessel revenues across the fleet by \$339,467 when compared to current revenues.

From 2008 through 2011, approximately 15 vessels with directed shark permits had blacktip shark landings, while approximately 2 vessels with incidental shark permits had blacktip shark landings in the Gulf of Mexico region. Spread amongst the directed and incidental shark permit holders that landed blacktip shark, the average shark permit holder could potentially land up to \$19,969 in additional annual revenue from Gulf of Mexico blacktip sharks.

#### 4. Blacknose Sharks

The blacknose shark management measures under Alternative Suite A3 are identical to those under Alternative Suites A2 and A6 for the Atlantic region. However, there are differences for the Gulf of Mexico region. Given that the TAC under Alternative Suite A3 would be 11,900 sharks, there would be no TAC available for commercial and recreational harvest of blacknose sharks in the Gulf of Mexico region. We would then work with the Gulf of Mexico Fishery Management Council to reduce the mortality of blacknose sharks in the Gulf of Mexico shrimp trawl fishery to attain the TAC of 11,900 sharks, and to establish bycatch reduction methods, as appropriate, to reduce mortality in the shrimp trawl and reef fish fisheries. Currently, the average annual gross revenues for blacknose shark landings for the entire commercial fishery in the Gulf of Mexico region are \$5,645, but would be reduced to \$0 under this alternative. Under Alternative Suite A3, lost revenues would lead to moderate direct adverse economic impacts for the

8 directed shark and the 2 incidental shark permit holders that land blacknose sharks in the Gulf of Mexico.

#### 5. Non-Blacknose Small Coastal Sharks

Alternative Suite A3 would keep the non-blacknose SCS management group as status quo with one regional quota of 221.6 mt dw (488,539 lb dw). There would be neutral economic impacts to shark permit holders.

#### 6. Quota Linkages

Under Alternative Suite A3, no quota linkages would be implemented. All shark management groups would open and close independently of each other. Quota linkages can lead to closures of shark management groups whether their quotas are fully harvested or if landings indicate linked quotas are within 80 percent of being fully harvested. If each management group opens and closes independently, each quota would have a higher likelihood of being filled, allowing for full realization of potential revenues. Thus, the lack of quota linkages under this alternative suite could lead to beneficial economic impacts in the short-term, but adverse economic impacts in the long-term if overfishing is allowed to continue.

#### 7. Recreational Measures

Alternative Suite A3 would increase the minimum recreational size for all hammerhead sharks (great, smooth, and scalloped hammerhead sharks) to 78 inches fork length, and increase outreach to recreational anglers concerning identification of all shark, including prohibited species. Therefore, this alternative would likely result in minor adverse economic impacts for charter/headboat operators and tournaments that target hammerhead sharks because of the reduced incentive to recreationally fish for these species. Increasing the recreational size limit for hammerhead sharks would ensure that only larger or "trophy" sized sharks would be landed.

### D. Alternative Suite A4

Alternative Suite A4 would establish new species management groups by regions, adjust LCS and SCS quotas, link appropriate quotas, and establish a species-specific recreational shark quota. Overall, Alternative Suite A4 would likely have direct short- and long-term minor, adverse economic impacts. These impacts would mostly affect fishermen catching blacknose sharks. The blacknose shark quota in the Atlantic region would be reduced, while in the Gulf of Mexico region, there would be no TAC available for commercial and recreational harvest of

blacknose sharks given the blacknose shark mortality in non-HMS fisheries in the Gulf of Mexico. Recreational management measures would affect fishermen who retain sharks because we would implement a species-specific quota for the recreational fishery. Neutral economic impacts are expected for recreational and commercial fishermen targeting scalloped hammerhead sharks, aggregated LCS and non-blacknose SCS. While this alternative suite might have minor adverse economic impacts, there is the potential for more adverse economic impacts if quotas are exceeded in the future. Although this alternative suite would allow for the highest Gulf of Mexico blacktip shark commercial quota, it is based on base model projections, which the NMFS scientists who participated in the stock assessment felt had a high degree of uncertainty, and, because these projections were developed outside of the standard SEDAR process and were not peer reviewed, they could not conclude with certainty that such a high level of catch would not result in overfishing. In addition to the uncertainty in the model, the blacktip shark quota proposed under this alternative suite could lead to increased bycatch of other species due to increased fishing effort. For all of these reasons, and because of the potential for additional adverse socioeconomic impacts if quotas are exceeded, we do not prefer this alternative suite at this time.

### 1. Scalloped Hammerhead Sharks

Alternative Suite A4 would use the scalloped hammerhead shark TAC established in Hayes *et al.* (2009) to create separate Atlantic and Gulf of Mexico quotas applicable to only scalloped hammerhead sharks rather than all three large hammerhead sharks as considered under Alternative Suites A2, A3, and A6. The quotas in both regions are higher than current landings (see Chapter 2 of the FEIS for landings information). Therefore, we expect neutral economic impacts. Great and smooth hammerhead sharks could continue to be landed at current levels under the aggregated LCS quota.

### 2. Large Coastal Sharks

Alternative Suite A4 would establish new aggregated LCS quotas in the Atlantic and Gulf of Mexico regions using a similar methodology to that outlined in Alternative Suites A2 and A6, except for one difference. While Alternative Suite A6 would calculate each species' contribution to total non-sandbar LCS landings using average

annual landings between 2008 and 2011, Alternative Suite A4 would instead calculate each species' contribution to total non-sandbar LCS landings using the year with the highest annual landings for the management group between 2008 and 2011 for each species. The year with the highest non-sandbar LCS landings in the Atlantic was 2008 and the highest in the Gulf of Mexico was 2011. This deviation in method does not substantially change the quotas; therefore, economic impacts are unchanged from Alternative Suites A2 and A6.

### 3. Gulf of Mexico Blacktip Sharks

Alternative Suite A4 would establish a separate Gulf of Mexico blacktip shark quota of 1,992.6 mt dw based upon projections produced by SEFSC stock assessment scientists. The quota of 1,992.6 mt dw is more than five times the current Gulf of Mexico non-sandbar LCS quota. Ex-vessel revenue resulting from this blacktip shark quota could increase by up to \$4,426,331 in the Gulf of Mexico region. Spread amongst the 17 directed and incidental shark permit holders that landed blacktip sharks, the average shark permit holder could potentially land up to \$260,372 in additional annual revenue from Gulf of Mexico blacktip sharks. However, it is unlikely that this value would be realized. The Gulf of Mexico blacktip shark quota would be linked to the Gulf of Mexico aggregated LCS and scalloped hammerhead shark quotas. All three of these management groups would close when landings of any of them reached, or was expected to reach, 80 percent of the respective quota. Either the aggregated or scalloped hammerhead quota would likely be filled before the larger blacktip shark quota was filled. Regardless, the increased blacktip shark quota would allow for increased fishing opportunities and positive impacts to small entities.

### 4. Blacknose Sharks

Under Alternative Suite A4, the mortality of blacknose sharks in the Atlantic region would be limited to the TAC recommended by the SEDAR stock assessment of 7,300 blacknose sharks. All of the economic impacts resulting for the Atlantic region from this portion of the alternative suite are the same as those analyzed in Alternative Suites A2 and A6.

For the Gulf of Mexico region, we would establish a TAC of 9,792 blacknose sharks. As described in Alternative Suite A3, there would be no TAC available for commercial and recreational harvest of blacknose sharks in the Gulf of Mexico region given the

blacknose shark mortality in non-HMS fisheries in the Gulf of Mexico. We would also work with the Gulf of Mexico Fishery Management Council to reduce bycatch mortality of blacknose sharks in the shrimp trawl and reef fish fisheries. The average annual gross revenues for blacknose shark landings for the commercial fishery are \$5,645, but would be reduced to \$0 under this alternative. Under Alternative Suite A4, it is anticipated that there would be moderate adverse economic impacts. In the short-term lost revenues would be moderate for the 5 directed shark and the 2 incidental shark permit holders that land blacknose sharks in the Gulf of Mexico region. Over the long-term, the adverse economic impact would be moderate, as the other management measures could be implemented to reduce the discards of blacknose sharks.

### 5. Non-Blacknose Small Coastal Sharks

Under Alternative Suite A4, we would establish regional quotas for non-blacknose SCS by dividing the current quota in half. This alternative would cause significant adverse economic impacts for shark fishermen in the Atlantic region. Alternative Suite A4 would restrict fishing of non-blacknose in the Atlantic to 244,269.5 lb dw and potentially reduce current annual revenue by \$164,109. In the Gulf of Mexico region, this alternative would cause beneficial economic impacts for the non-blacknose SCS fishery as the quota would be larger than their average landings. This larger quota could potentially increase gross revenues by \$257,928. However, this alternative suite would cause adverse impacts on blacknose sharks since current fishing and bycatch levels of blacknose sharks could increase. Since Alternative Suite A4 would not reduce blacknose shark mortality in the Gulf of Mexico region and decrease the Atlantic non-blacknose SCS fishing levels, we do not prefer this alternative at this time.

### 6. Quota Linkages

Quota linkages under Alternative Suite A4 are nearly identical to those under Alternative Suite A2, except that instead of linking the hammerhead quotas to the aggregated LCS quota in the Atlantic and Gulf of Mexico regions, the scalloped hammerhead quota would be linked instead. This deviation should not change the expected economic impacts. In addition, we would link the Atlantic blacknose and non-blacknose SCS quotas, and Gulf of Mexico blacknose shark and non-blacknose SCS quotas, and allow inseason quota transfer between the non-blacknose SCS regions. The quota linkages proposed

under Alternative Suite A4 would be expected to have moderate adverse economic impacts.

#### 7. *Recreational Measures*

Under Alternative Suite A4, we would establish species-specific recreational shark quotas. This alternative would cause short-term neutral economic impacts for recreational fishermen as it would restrict landings to current levels. In the long-term, this alternative could have minor adverse socioeconomic impacts if the species-specific recreational shark quotas are exceeded and we implement additional management measures. This would have a greater effect on tournaments and charter vessels that target sharks.

#### E. **Alternative Suite A5**

Alternative Suite A5 would close all commercial and recreational shark fisheries. Alternative Suite A5 would likely have significant adverse economic impacts because recreational and commercial shark fishing in the Atlantic, Gulf of Mexico and Caribbean would be prohibited. Because other alternatives would meet the objectives of this Amendment with less significant adverse socioeconomic impacts, NMFS does not prefer this alternative suite at this time.

##### 1. *Scalloped Hammerhead Sharks*

Currently, scalloped hammerhead sharks provide fishery-wide revenue of \$72,404 (as discussed under Alternative Suite A1), which would be lost under this alternative suite. Consequently, the scalloped hammerhead shark portion of Alternative Suite A5 would be expected to only have moderate adverse direct economic impacts.

##### 2. *Large Coastal Sharks*

Closure of the LCS fishery would have significant adverse direct economic impacts. Many fishermen rely on the LCS fishery for a large portion of annual earnings. A closure of the fishery would significantly impact the livelihoods of these fishermen. Currently, commercial landings of non-sandbar LCS generate annual revenues of \$1,745,071 (as discussed under Alternative Suite A1), which would be lost under this alternative suite.

##### 3. *Gulf of Mexico Blacktip Sharks*

Currently, Gulf of Mexico blacktip sharks provide fishery-wide revenue of \$625,487 (as discussed under Alternative Suite A1), which would be lost under this alternative suite and the annual revenue of the approximately 17 direct and incidental shark permit

holders that had blacktip shark landings would be reduced by \$36,793 per permit holder. Consequently, the Gulf of Mexico blacktip shark portion of Alternative Suite A5 would be expected to have significant adverse economic impacts.

##### 4. *Blacknose Sharks*

Alternative Suite A5 would close the entire blacknose shark management group, prohibiting the landing of any blacknose sharks. This alternative would have significant, adverse, economic impacts on fishermen with directed and incidental shark permits that fish for blacknose: The 25 directed shark permit holders, and the 3 incidental shark permit holders that had blacknose shark landings during 2008 through 2011. The result would be a loss of average annual gross revenues of \$52,941 from blacknose shark landings. While this alternative could reduce blacknose mortality below the commercial allowance required to rebuild blacknose shark stocks, it would also drastically reduce non-blacknose SCS landings, and have the largest social and economic impacts of all the alternatives considered. This action would require fishermen to leave the closed shark fisheries altogether.

##### 5. *Non-Blacknose Small Coastal Sharks*

Alternative Suite A5 would close the entire SCS commercial shark fishery, prohibiting the landing of any SCS, including finetooth, Atlantic sharpnose, and bonnethead. This alternative would have significant, adverse, socioeconomic impacts on fishermen with directed and incidental shark permits that fish for non-blacknose SCS, the 41 directed shark permit holders, and the 13 incidental shark permit holders that had non-blacknose SCS landings since Amendment 3 was implemented in 2010. The result would be a loss of average annual gross revenues of \$548,345 from non-blacknose SCS landings. This action would require fishermen to leave the closed shark fisheries altogether.

##### 6. *Quota Linkages*

Alternative Suite A5 would close all federally managed Atlantic recreational and commercial shark fisheries, obviating the need for quota linkages. The quota linkages portion of Alternative Suite A5 would likely result in no additional economic impacts on small entities.

##### 7. *Recreational Measures*

Alternative Suite A5 would have direct significant adverse socioeconomic impacts because it would prohibit the

retention of all sharks for recreational anglers. This would have a significant effect on tournaments and charter vessels that target sharks. Thus, NMFS does not prefer this alternative suite at this time.

#### F. **Alternative Suite A6**

Alternative Suite A6, the preferred alternative, will establish new species management groups by regions, adjust LCS and SCS quotas, link appropriate quotas, and increase the shark minimum recreational size to 78 inches fork length for great, scalloped, and smooth hammerhead sharks. When taken as a whole, Alternative Suite A6 would likely have direct short- and long-term minor adverse economic impacts. These impacts would mostly affect fishermen targeting scalloped hammerhead and blacknose sharks because the quotas would constrain fishing in years of higher than average landings. These fishermen are likely to adapt to the new regulations by fishing in other fisheries, or change their fishing habitats. Recreational management measures will increase the size limit and cause fishermen to catch and release more hammerhead sharks. Neutral economic impacts are expected for fishermen targeting the aggregated LCS and non-blacknose SCS management groups since the preferred quotas are based on the average landings for each species. Furthermore, quota linkages would affect the economic impacts based on the fishing rate of each linked shark quota, and recreational measures would likely have beneficial economic impacts in the long-term. When we compare the economic impacts of Alternative Suite A6 to the other alternative suites, this alternative suite would cause fewer impacts overall to fishermen. For this reason and the ecological reasons previously discussed, we prefer this alternative suite at this time.

##### 1. *Scalloped Hammerhead Sharks*

Under Alternative Suite A6, NMFS will establish an Atlantic and a Gulf of Mexico hammerhead shark quota (including great, scalloped, and smooth hammerhead sharks) using the methodology outlined in Chapter 2 of the FEIS. When comparing average landings of hammerhead sharks from 2008–2011 to the preferred quotas revenue in the Gulf of Mexico region would be increased by \$2,005 and increase in the Atlantic region by \$1,719. However, because hammerhead sharks are currently counted against the regional non-sandbar LCS quotas, which are much higher than the preferred regional hammerhead shark quotas, the opportunities to land hammerhead

sharks would be reduced in years of higher than average landings. Therefore, there would be minimal impact on the annual revenues of individual vessels actively involved in the fishery most years, but minor adverse impacts in years of higher than average landings.

## 2. Large Coastal Sharks

Alternative Suite A6 will establish new, separate quotas for hammerhead sharks (great, scalloped, and smooth) and Gulf of Mexico blacktip sharks, necessitating removal of these species from the non-sandbar LCS management group (which will then be renamed "aggregated LCS" in both the Atlantic and Gulf of Mexico regions). The aggregated LCS quota will be based on average annual landings of the remaining species (see Chapter 2 in the FEIS for annual landings of remaining species); therefore, those species composing the aggregated LCS management group would not experience a change in fishing pressure and landings would be capped at recent levels. For these reasons, economic impacts to small entities resulting from this portion of Alternative Suite A6 are expected to be neutral.

## 3. Gulf of Mexico Blacktip Sharks

This alternative suite's blacktip shark action, to set the commercial quota according to recent average landings, is likely to result in neutral economic impacts to small entities. As discussed in Chapter 1 of the FEIS, based on the SEDAR 29 Gulf of Mexico blacktip shark stock assessment, we have determined that the Gulf of Mexico blacktip shark stock is not overfished and not experiencing overfishing. These results indicate the Gulf of Mexico blacktip shark stock can sustain current fishing levels and should not result in any additional impacts to small entities.

## 4. Blacknose Sharks

Under Alternative Suite A6, we will separate blacknose sharks into the Atlantic and Gulf of Mexico regions as suggested in the SEDAR 21 stock assessment (NMFS 2011). These alternatives will decrease the blacknose shark landings in each region. Average annual gross revenues for the blacknose shark landings for the Atlantic region would increase from \$54,113 under the No Action alternative to \$54,854 under Alternative Suite A6. We anticipate that these directed and incidental shark permit holders would experience minor adverse economic impacts as blacknose sharks are not the targeted shark species for SCS fishermen. Average annual gross revenues for the blacknose shark landings for the Gulf of Mexico region

would decrease from \$5,645 under the No Action alternative to \$5,641 under Alternative Suite A6. We anticipate that these directed and incidental shark permit holders would experience neutral economic impacts since the new Gulf of Mexico blacknose shark quota is consistent with current landings. In the short-term, lost revenues would be moderate for the 20 directed shark permit and 1 incidental shark permit holders that land blacknose sharks in the Atlantic region, and the 5 directed shark and the 2 incidental shark permits that land blacknose sharks in the Gulf of Mexico region.

## 5. Non-Blacknose Small Coastal Sharks

Alternative Suite A6 will establish regional quotas for non-blacknose SCS based on the landings since Amendment 3 was implemented in 2010 (NMFS 2010). In the Atlantic region, an average of approximately 35 vessels with directed shark permits had non-blacknose shark landings, while approximately 9 vessels with incidental shark permits had non-blacknose SCS landings. In the Gulf of Mexico region, an average of approximately 5 vessels with directed shark permits had non-blacknose shark landings, while approximately 2 vessels with incidental shark permits had non-blacknose SCS landings since Amendment 3 was implemented in 2010. Under the Alternative Suite A6, there would be neutral economic impacts to directed and incidental shark permit holders as the average annual gross revenues from non-blacknose SCS landings would be the same as the status quo in the short- and long- term. Fishermen would be expected to operate in the same manner as the status quo in the short-term. However, this alternative suite could have minor negative economic impacts on fishermen if fishing effort increases for non-blacknose SCS. The fishery has never filled the entire quota established for the fishery in 2010, but that could change with a smaller regional quota and if fishermen are displaced from other fisheries.

## 6. Quota Linkages

The quota linkages preferred under this alternative suite could have short- and long-term moderate adverse economic impacts. Quota linkages are explicitly designed to concurrently close multiple shark management groups, regardless of whether all the linked quotas are filled. This provides protection against incidental capture for species for which the quota has been reached, but it could also preclude fishermen from harvesting the entirety of each of the linked quotas. A

quantitative analysis of the economic impact is not possible without comparing the rates of hammerhead shark, blacktip shark, and aggregated LCS catch, and without knowing the extent to which fishermen can avoid hammerhead sharks. However, a qualitative analysis can provide insight on the possibility of adverse socioeconomic impacts. Under Alternative Suite A6, both the Atlantic hammerhead shark and Atlantic aggregated LCS management groups will close when landings of either reaches or is expected to reach 80 percent of the quota, and in the Gulf of Mexico region, the hammerhead shark and Gulf of Mexico aggregated LCS management groups will close when landings of either one reaches or is expected to reach 80 percent of its quota. If the entire aggregated LCS quota has not been harvested, the fishery would not realize the full level of revenues possible under the established quota. However, given that the hammerhead shark quotas for the Atlantic and Gulf of Mexico regions are larger than average landings of hammerhead sharks in each region by a little more than 2,000 lb and that the Atlantic and Gulf of Mexico aggregated LCS quotas are not changing from average landings, we do not expect either quota to reach or be projected to reach 80 percent significantly faster than the other quota in either region as a result of this alternative suite. Additionally, unlike Alternative Suite A2, the Gulf of Mexico blacktip shark quota will not be linked to the hammerhead shark and aggregated LCS quotas under Alternative Suite A6. This will allow Gulf of Mexico fishermen to continue to fish for blacktip sharks following the closures of the hammerhead and LCS quotas. We will also have the ability to transfer hammerhead shark quota between regions to allow for the greatest opportunity to harvest the aggregated LCS quotas while not exceeding the combined regional quotas for hammerhead sharks, which may help to further minimize the likelihood of adverse socioeconomic impacts. The blacknose shark and non-blacknose SCS socioeconomic impacts would be the same as the LCS since there would be similar scenarios with the quota linkage by species and region. In addition, we would allow inseason quota transfers between non-blacknose SCS regions. This would have minor beneficial economic impacts for the fishery as the non-blacknose SCS quota would not be the limiting factor. Consequently, the quota linkages proposed under this Alternative Suite could have moderate

adverse economic impacts in some years with high landings, but are expected to have neutral impacts most years.

7. Recreational Measures

Alternative Suite A6 will increase the current recreational size limit for hammerhead shark species to 78 inches fork length, and provide additional outreach to recreational anglers regarding identification of all sharks, including prohibited shark species. Implementation of these management measures would result in minor alterations to the way tournaments and charter vessels operate, and minimal reductions in opportunity and demand for recreational shark fishing, which could create some minor adverse economic impacts in the short-term. However, these measures would help the hammerhead stocks rebuild, reduce accidental harvest of prohibited species, and possibly increase recreational fishing opportunities in the future.

Small Entity Compliance Guide

Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996 states that, for each rule or group of related rules for which an agency is required to prepare a FRFA, the agency shall publish one or more guides to assist small entities in complying with the rule, and shall designate such publications as "small entity compliance guides." The agency shall explain the actions a small entity is required to take to comply with a rule or group of rules. Copies of this final rule and the compliance guide are available upon request from us (see ADDRESSES). Copies of the compliance guide will be available from the Highly Migratory Species Management Division Web site at http://www.nmfs.noaa.gov/sfa/hms/.

List of Subjects in 50 CFR Part 635

Fisheries, Fishing, Fishing vessels, Foreign relations, Imports, Penalties, Reporting and recordkeeping requirements, Treaties.

Dated: June 27, 2013.

Alan D. Risenhoover,

Director, Office of Sustainable Fisheries, performing the functions and duties of the Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 635 is amended as follows:

PART 635—ATLANTIC HIGHLY MIGRATORY SPECIES

■ 1. The authority citation for part 635 continues to read as follows:

Authority: 16 U.S.C. 971 et seq.; 16 U.S.C. 1801 et seq.

■ 2. In § 635.2:

■ a. Add in alphabetical order the definitions of "Atlantic Aggregated LCS," "FL (fork length)," "Gulf of Mexico Aggregated LCS," and "Hammerhead Shark(s)";

■ b. Remove the definitions of "Non-ridgeback large coastal shark" and "Non-sandbar LCS";

■ c. Add in alphabetical order the definition of "Research LCS"; and

■ d. Remove the definition of "Ridgeback large coastal shark".

The additions read as follows:

§ 635.2 Definitions.

\* \* \* \* \*

Atlantic Aggregated LCS means one of the following species, or parts thereof, as listed in Table 1 of Appendix A of this part: Atlantic blacktip, bull, lemon, nurse, silky, spinner, and tiger.

\* \* \* \* \*

FL (fork length) means the straight line measurement along the length of the fish from the tip of the upper jaw to the fork of the tail.

\* \* \* \* \*

Gulf of Mexico Aggregated LCS means one of the following species, or parts thereof, as listed in Table 1 of appendix A of this part: bull, lemon, nurse, silky, spinner, and tiger.

\* \* \* \* \*

Hammerhead Shark(s) means great, scalloped, and smooth hammerhead shark species, or parts thereof, as listed in Table 1 in Appendix A of this part.

\* \* \* \* \*

Research LCS means one of the species, or part thereof, listed under heading A of Table 1 in Appendix A of this part, other than sandbar sharks.

\* \* \* \* \*

■ 3. In § 635.5, paragraph (c)(1) is revised to read as follows:

§ 635.5 Recordkeeping and reporting.

\* \* \* \* \*

(c) \* \* \*

(1) Bluefin tuna. The owner of a vessel permitted, or required to be permitted, in the Atlantic HMS Angling or Atlantic HMS Charter/Headboat category must report all BFT caught under the Angling category quota designated at § 635.27(a) through the NMFS automated catch reporting system within 24 hours of the landing. Such reports may be made by calling a phone number designated by NMFS or submitting the required information electronically in the method designated by NMFS.

\* \* \* \* \*

■ 4. In § 635.20, paragraphs (a) and (e)(2) are revised, and paragraph (e)(4) is added to read as follows:

§ 635.20 Size limits.

(a) General. The CFL will be the sole criterion for determining the size and/or size class of whole (head on) Atlantic tunas.

\* \* \* \* \*

(e) \* \* \*

(2) All sharks, except those specified at § 635.20(e)(4), landed under the recreational retention limits specified at § 635.22(c)(2) must be at least 54 inches (137 cm) FL.

\* \* \* \* \*

(4) All hammerhead sharks landed under the recreational retention limits specified at § 635.22(c)(2) must be at least 78 inches (198.1 cm) FL.

\* \* \* \* \*

■ 5. In § 635.21, remove the introductory text and revise paragraph (c)(5)(iii)(C) introductory text to read as follows:

§ 635.21 Gear operation and deployment restrictions.

\* \* \* \* \*

(c) \* \* \*

(5) \* \* \*

(iii) \* \* \*

(C) Hook size, type, and bait. Vessels fishing outside of the Northeast Distant gear restricted area, as defined at § 635.2, that have pelagic longline gear on board, and that have been issued, or are required to have, a limited access swordfish, shark, or tuna longline category permit for use in the Atlantic Ocean, including the Caribbean Sea and the Gulf of Mexico, are limited, at all times, to possessing on board and/or using only whole finfish and/or squid bait, and the following types and sizes of fishing hooks:

\* \* \* \* \*

■ 6. In § 635.22, paragraph (c)(2) is revised to read as follows:

§ 635.22 Recreational retention limits.

\* \* \* \* \*

(c) \* \* \*

(2) Only one shark from the following list may be retained per vessel per trip, subject to the size limits described in § 635.20(e)(2) and (4): Atlantic blacktip, Gulf of Mexico blacktip, bull, great hammerhead, scalloped hammerhead, smooth hammerhead, lemon, nurse, spinner, tiger, blue, common thresher, oceanic whitetip, porbeagle, shortfin mako, Atlantic sharpnose, finetooth, Atlantic blacknose, Gulf of Mexico blacknose, and bonnethead.

\* \* \* \* \*

■ 7. In § 635.24, revise paragraphs (a)(2), (a)(3), and (a)(4)(ii) and remove and reserve paragraph (a)(7).

The revisions read as follows:

**§ 635.24 Commercial retention limits for sharks, swordfish, and BAYS tunas.**

\* \* \* \* \*

(a) \* \* \*

(2) A person who owns or operates a vessel that has been issued a directed LAP for sharks and does not have a valid shark research permit, or a person who owns or operates a vessel that has been issued a directed LAP for sharks and that has been issued a shark research permit but does not have a NMFS-approved observer on board, may retain, possess, or land no more than 36 LCS other than sandbar sharks per vessel per trip if the respective LCS management group(s) is open per §§ 635.27 and 635.28. Such persons may not retain, possess, or land sandbar sharks.

(3) A person who owns or operates a vessel that has been issued an incidental LAP for sharks and does not have a valid shark research permit, or a person who owns or operates a vessel that has been issued an incidental LAP for sharks and that has been issued a valid shark research permit but does not have a NMFS-approved observer on board, may retain, possess, or land no more than 3 LCS other than sandbar sharks per vessel per trip if the respective LCS management group(s) is open per §§ 635.27 and 635.28. Such persons may not retain, possess, or land sandbar sharks.

(4) \* \* \*

(ii) A person who owns or operates a vessel that has been issued a directed shark LAP may retain, possess, or land blacknose and non-blacknose SCS if the respective blacknose and non-blacknose SCS management group is open per §§ 635.27 and 635.28.

\* \* \* \* \*

■ 8. In § 635.27, paragraph (b) is revised to read as follows:

**§ 635.27 Quotas.**

\* \* \* \* \*

(b) *Sharks*—(1) *Commercial quotas*. The commercial quotas for sharks specified in this section apply to all sharks harvested from the management unit, regardless of where harvested. The base quotas listed below may be adjusted per paragraph (b)(2) of this section. Sharks taken and landed commercially from state waters, even by fishermen without Federal shark permits, must be counted against the commercial quota. Any sharks landed commercially as “unclassified” will be counted against the appropriate quota

based on the species composition calculated from data collected by observers on non-research trips and/or dealer data. No prohibited sharks, including parts or pieces of prohibited sharks, which are listed under heading D of Table 1 of Appendix A to this part, may be retained except as authorized under § 635.32. For the purposes of this section, the boundary between the Gulf of Mexico region and the Atlantic region is defined as a line beginning on the east coast of Florida at the mainland at 25°20.4' N. lat, proceeding due east. Any water and land to the south and west of that boundary is considered, for the purposes of quota monitoring and setting of quotas, to be within the Gulf of Mexico region. Any water and land to the north and east of that boundary, for the purposes of quota monitoring and setting of quotas, is considered to be within the Atlantic region.

(i) *Sandbar sharks*. The base annual commercial quota for sandbar sharks is 116.6 mt dw. This quota, as adjusted per paragraph (b)(2) of this section, is available only to the owners of commercial shark vessels that have been issued a valid shark research permit and that have a NMFS-approved observer onboard.

(ii) *Atlantic aggregated LCS*. The base annual commercial quota for Atlantic aggregated LCS is 168.9 mt dw. The commercial quota for the Atlantic aggregated LCS, as adjusted per paragraph (b)(2) of this section, applies only to those species of sharks that were caught in the Atlantic region, as defined in paragraph (b)(1) of this section.

(iii) *Gulf of Mexico aggregated LCS*. The base annual commercial quota for Gulf of Mexico aggregated LCS is 157.5 mt dw. The commercial quota for the Gulf of Mexico aggregated LCS, as adjusted per paragraph (b)(2), applies only to those species of sharks that were caught in the Gulf of Mexico region, as defined in paragraph (b)(1) of this section.

(iv) *Research LCS*. The base annual commercial quota for Research LCS is 50 mt dw. This quota, as adjusted per paragraph (b)(2) of this section, is available only to the owners of commercial shark vessels that have been issued a valid shark research permit and that have a NMFS-approved observer onboard.

(v) *Hammerhead sharks*. The base annual commercial quota for hammerhead sharks is 52.4 mt dw. This quota is split between the regions defined in paragraph (b)(1) of this section as follows: Atlantic region receives 51.7% of the base quota, except as adjusted per paragraph (b)(2) of this section; Gulf of Mexico region receives

48.3% of the base quota, except as adjusted per paragraph (b)(2) of this section. The commercial quota for Atlantic hammerhead sharks applies only to those species of sharks that were caught in the Atlantic region, as defined in paragraph (b)(1) of this section. The commercial quota for Gulf of Mexico hammerhead sharks applies only to those species of sharks that were caught in the Gulf of Mexico region, as defined in paragraph (b)(1) of this section.

(vi) *Gulf of Mexico blacktip sharks*. The base annual commercial quota for Gulf of Mexico blacktip sharks is 256.6 mt dw. The commercial quota for Gulf of Mexico blacktip sharks, as adjusted per paragraph (b)(2) of this section, applies only to those species of sharks that were caught in the Gulf of Mexico region, as defined in paragraph (b)(1) of this section.

(vii) *Non-blacknose small coastal sharks*. The base annual commercial quota for non-blacknose small coastal sharks across all regions is 221.6 mt dw. This quota is split between the regions defined in paragraph (b)(1) of this section as follows: the Atlantic region receives 79.5% of the base quota, except as adjusted per paragraph (b)(2) of this section; the Gulf of Mexico region receives 20.5% of the base quota, except as adjusted per paragraph (b)(2) of this section. The commercial quota for Atlantic non-blacknose SCS applies only to those species of sharks that were caught in the Atlantic region, as defined in paragraph (b)(1) of this section. The commercial quota for Gulf of Mexico non-blacknose SCS applies only to those species of sharks that were caught in the Gulf of Mexico region, as defined in paragraph (b)(1) of this section.

(viii) *Atlantic blacknose sharks*. The base annual commercial quota for Atlantic blacknose sharks is 18.0 mt dw. The commercial quota for Atlantic blacknose sharks, as adjusted per paragraph (b)(2) of this section, applies only to those species of sharks that were caught in the Atlantic region, as defined in paragraph (b)(1) of this section.

(ix) *Gulf of Mexico blacknose sharks*. The base annual commercial quota for Gulf of Mexico blacknose sharks is 2.0 mt dw. The commercial quota for Gulf of Mexico blacknose sharks, as adjusted per paragraph (b)(2) of this section, applies only to those species of sharks that were caught in the Gulf of Mexico region, as defined in paragraph (b)(1) of this section.

(x) *Pelagic sharks*. The base annual commercial quotas for pelagic sharks are 273.0 mt dw for blue sharks, 1.7 mt dw for porbeagle sharks, and 488.0 mt dw for pelagic sharks other than blue sharks or porbeagle sharks.

(2) *Annual and inseason adjustments of commercial quotas.* NMFS will publish in the **Federal Register** any annual or inseason adjustments to the base annual commercial quotas. The base annual quota will not be available, and the fishery will not open, until any adjustments are published in the **Federal Register** and effective. Within a fishing year or at the start of a fishing year, NMFS may transfer quotas between regions of the same species or management group, as appropriate, based on the criteria in paragraph (b)(2)(iii) of this section.

(i) *Annual overharvest adjustments.* Except as noted in this paragraph, if any of the available commercial base or adjusted quotas as described in this section is exceeded in any fishing year, NMFS will deduct an amount equivalent to the overharvest(s) from the base quota the following fishing year or, depending on the level of overharvest(s), NMFS may deduct from the base quota an amount equivalent to the overharvest(s) spread over a number of subsequent fishing years to a maximum of five years. If the blue shark quota is exceeded, NMFS will reduce the annual commercial quota for pelagic sharks by the amount that the blue shark quota is exceeded prior to the start of the next fishing year or, depending on the level of overharvest(s), deduct an amount equivalent to the overharvest(s) spread over a number of subsequent fishing years to a maximum of five years.

(ii) *Annual underharvest adjustments.* If any of the annual base or adjusted quotas as described in this section is not harvested, NMFS may adjust the annual base quota depending on the status of the stock or management group. If a species or a specific species within a management group is declared to be overfished, to have overfishing occurring, or to have an unknown status, NMFS may not adjust the following fishing year's base quota for any underharvest, and the following fishing year's quota will be equal to the base annual quota. If the species or all species in a management group is not declared to be overfished, to have overfishing occurring, or to have an unknown status, NMFS may increase the following year's base annual quota by an equivalent amount of the underharvest up to 50 percent above the base annual quota. Except as noted in (b)(2)(iii) of this section, underharvests are not transferable between regions, species, and/or management groups.

(iii) *Determination criteria for inseason and annual quota transfers between regions.* Inseason and/or annual quota transfers of regional quotas

between regions may be conducted only for species or management groups where the species are the same between regions and the quota is split between regions for management purposes and not as a result of a stock assessment. Before making any inseason or annual quota transfer between regions, NMFS will consider the following criteria and other relevant factors:

(A) The usefulness of information obtained from catches in the particular management group for biological sampling and monitoring of the status of the respective shark species and/or management group;

(B) The catches of the particular species and/or management group quota to date and the likelihood of closure of that segment of the fishery if no adjustment is made;

(C) The projected ability of the vessels fishing under the particular species and/or management group quota to harvest the additional amount of corresponding quota before the end of the fishing year;

(D) Effects of the adjustment on the status of all shark species;

(E) Effects of the adjustment on accomplishing the objectives of the fishery management plan;

(F) Variations in seasonal distribution, abundance, or migration patterns of the appropriate shark species and/or management group;

(G) Effects of catch rates in one area precluding vessels in another area from having a reasonable opportunity to harvest a portion of the quota; and/or

(H) Review of dealer reports, daily landing trends, and the availability of the respective shark species and/or management group on the fishing grounds.

(3) *Opening commercial fishing season criteria.* NMFS will file with the Office of the Federal Register for publication notification of the opening dates of the shark fishery for each species and management group. Before making any decisions, NMFS would consider the following criteria and other relevant factors in establishing the opening dates:

(i) The available annual quotas for the current fishing season for the different species/management groups based on any over- and/or underharvests experienced during the previous commercial shark fishing seasons;

(ii) Estimated season length based on available quota(s) and average weekly catch rates of different species and/or management group from the previous years;

(iii) Length of the season for the different species and/or management group in the previous years and whether

fishermen were able to participate in the fishery in those years;

(iv) Variations in seasonal distribution, abundance, or migratory patterns of the different species/management groups based on scientific and fishery information;

(v) Effects of catch rates in one part of a region precluding vessels in another part of that region from having a reasonable opportunity to harvest a portion of the different species and/or management quotas;

(vi) Effects of the adjustment on accomplishing the objectives of the 2006 Consolidated HMS FMP and its amendments; and/or,

(vii) Effects of a delayed opening with regard to fishing opportunities in other fisheries.

(4) *Public display and non-specific research quotas.* All sharks collected under the authority of a display permit or EFP, subject to restrictions at § 635.32, will be counted against the following:

(i) The base annual quota for persons who collect LCS other than sandbar, SCS, pelagic sharks, blue sharks, porbeagle sharks, or prohibited species under a display permit or EFP is 57.2 mt ww (41.2 mt dw).

(ii) The base annual quota for persons who collect sandbar sharks under a display permit is 1.4 mt ww (1.0 mt dw) and under an EFP is 1.4 mt ww (1.0 mt dw).

(iii) No persons may collect dusky sharks under a display permit. Collection of dusky sharks for research under EFPs and/or SRPs may be considered on a case-by-case basis and any associated mortality would be deducted from the shark research and display quota.

\* \* \* \* \*

■ 9. In § 635.28, the section heading and paragraph (b) are revised to read as follows:

**§ 635.28 Fishery closures.**

\* \* \* \* \*

(b) *Sharks*—(1) Non-linked quotas: The commercial fishery for a species or management group that is not linked to another species or management group will open as specified at § 635.27(b). Except as noted in (b)(4) of this section, when NMFS calculates that the landings for the shark species management group, as specified in § 635.27(b)(1), has reached or is projected to reach 80 percent of the available quota as specified in § 635.27(b)(1), NMFS will file for publication with the Office of the Federal Register a notice of closure for that shark species, shark management group, and/or region that will be

effective no fewer than 5 days from date of filing. From the effective date and time of the closure until NMFS announces, via the publication of a notice in the **Federal Register**, that additional quota is available and the season is reopened, the fisheries for the shark species or management group are closed, even across fishing years.

(2) **Linked Quotas:** As specified in paragraph (b)(3) of this section, the quotas of some shark species and/or management groups are linked to the quotas of other shark species and/or management groups. The commercial fishery for all linked species and or management groups will open as specified at § 635.27(b). When NMFS calculates that the landings for any species and/or management group of a linked group has reached or is projected to reach 80 percent of the available quota as specified in § 635.27(b)(1), NMFS will file for publication with the Office of the Federal Register a notice of closure for all of the species and/or management groups in a linked group that will be effective no fewer than 5 days from date of filing. From the effective date and time of the closure until NMFS announces, via the publication of a notice in the **Federal Register**, that additional quota is available and the season is reopened, the fishery for all linked species and/or management groups is closed, even across fishing years.

(3) The quotas of the following species and/or management groups are linked:

- (i) Atlantic hammerhead sharks and Atlantic aggregated LCS;
- (ii) Gulf of Mexico hammerhead sharks and Gulf of Mexico aggregated LCS;
- (iii) Atlantic blacknose and Atlantic non-blacknose SCS; and,
- (iv) Gulf of Mexico blacknose and Gulf of Mexico non-blacknose SCS.

(4) NMFS may close the Gulf of Mexico blacktip shark management group before landings reach, or are expected to reach, 80 percent of the quota. Before taking any inseason action, NMFS will consider the following criteria and other relevant factors:

- (i) Estimated Gulf of Mexico blacktip shark season length based on available quota and average weekly catch rates during the current fishing year and from previous years;
- (ii) Variations in seasonal distribution, abundance, or migratory patterns of blacktip sharks, hammerhead sharks, and aggregated LCS based on scientific and fishery information;
- (iii) Effects of the adjustment on accomplishing the objectives of the 2006

Consolidated HMS FMP and its amendments;

(iv) The amount of remaining shark quota in the relevant area or region, to date, based on dealer or other reports; and/or,

(v) The catch rates of the relevant shark species/management groups, to date, based on dealer or other reports.

(5) When the fishery for a shark species and/or management group is closed, a fishing vessel, issued a Federal Atlantic commercial shark permit pursuant to § 635.4, may not possess or sell a shark of that species and/or management group, except under the conditions specified in § 635.22(a) and (c) or if the vessel possesses a valid shark research permit under § 635.32, a NMFS-approved observer is onboard, and the sandbar and/or Research LCS fishery is open. A shark dealer, issued a permit pursuant to § 635.4, may not purchase or receive a shark of that species and/or management group from a vessel issued a Federal Atlantic commercial shark permit, except that a permitted shark dealer or processor may possess sharks that were harvested, off-loaded, and sold, traded, or bartered, prior to the effective date of the closure and were held in storage. Under a closure for a shark management group, a shark dealer, issued a permit pursuant to § 635.4 may, in accordance with State regulations, purchase or receive a shark of that species or management group if the sharks were harvested, off-loaded, and sold, traded, or bartered from a vessel that fishes only in State waters and that has not been issued a Federal Atlantic commercial shark permit, HMS Angling permit, or HMS Charter/Headboat permit pursuant to § 635.4. Additionally, under a closure for a shark species and/or management group, a shark dealer, issued a permit pursuant to § 635.4, may purchase or receive a shark of that species group if the sandbar and/or Research LCS fishery is open and the sharks were harvested, off-loaded, and sold, traded, or bartered from a vessel issued a valid shark research permit (per § 635.32) that had a NMFS-approved observer on board during the trip sharks were collected.

■ 10. In § 635.31, paragraphs (c)(1) and (4) are revised to read as follows:

**§ 635.31 Restrictions on sale and purchase.**

\* \* \* \* \*

(c) \* \* \*

(1) Persons who own or operate a vessel that possesses a shark from the management unit may sell such shark only if the vessel has a valid commercial shark permit issued under this part.

Persons may possess and sell a shark only when the fishery for that species, management group, and/or region has not been closed, as specified in § 635.28(b).

\* \* \* \* \*

(4) Only dealers who have a valid shark dealer permit and who have submitted reports to NMFS according to reporting requirements of § 635.5(b)(1)(ii) may first receive a shark from an owner or operator of a vessel that has, or is required to have, a valid federal Atlantic commercial shark permit issued under this part. Dealers may purchase a shark only from an owner or operator of a vessel who has a valid commercial shark permit issued under this part, except that dealers may purchase a shark from an owner or operator of a vessel who does not have a commercial permit for shark if that vessel fishes exclusively in state waters. Dealers may purchase a sandbar shark only from an owner or operator of a vessel who has a valid shark research permit and who had a NMFS-approved observer onboard the vessel for the trip in which the sandbar shark was collected. Dealers may purchase a shark from an owner or operator of fishing vessel who has a valid commercial shark permit issued under this part only when the fishery for that species, management group, and/or region has not been closed, as specified in § 635.28(b).

\* \* \* \* \*

■ 11. In § 635.71, paragraphs (d)(3) and (4) are revised to read as follows:

**§ 635.71 Prohibitions**

\* \* \* \* \*

- (d) \* \* \*
  - (3) Retain, possess, or land a shark of a species or management group when the fishery for that species, management group, and/or region is closed, as specified in § 635.28(b).
  - (4) Sell or purchase a shark of a species or management group when the fishery for that species, management group, and/or region is closed, as specified in § 635.28(b).

\* \* \* \* \*

■ 12. In Appendix A to Part 635, Sections A, B, and D of Table 1 are revised to read as follows:

**Appendix A to Part 635—Species Tables**

Table 1 of Appendix A to Part 635—Oceanic Sharks

- A. Large Coastal Sharks
  - Atlantic and Gulf of Mexico blacktip, *Carcharhinus limbatus*
  - Bull, *Carcharhinus leucas*
  - Great hammerhead, *Sphyrna mokarran*
  - Lemon, *Negaprion brevirostris*

Nurse, *Ginglymostoma cirratum*  
 Sandbar, *Carcharhinus plumbeus*  
 Scalloped hammerhead, *Sphyrna lewini*  
 Silky, *Carcharhinus falciformis*  
 Smooth hammerhead, *Sphyrna zygaena*  
 Spinner, *Carcharhinus brevipinna*  
 Tiger, *Galeocerdo cuvier*  
 B. Small Coastal Sharks  
 Atlantic sharpnose, *Rhizoprionodon*  
*terraenovae*  
 Atlantic and Gulf of Mexico blacknose,  
*Carcharhinus acronotus*  
 Bonnethead, *Sphyrna tiburo*

Finetooth, *Carcharhinus isodon*  
 \* \* \* \* \*  
 D. Prohibited Sharks  
 Atlantic angel, *Squatina dumeril*  
 Basking, *Cetorhinus maximus*  
 Bigeye sand tiger, *Odontaspis noronhai*  
 Bigeye sixgill, *Hexanchus nakamurai*  
 Bigeye thresher, *Alopias superciliosus*  
 Bignose, *Carcharhinus altimus*  
 Caribbean reef, *Carcharhinus perezii*  
 Caribbean sharpnose, *Rhizoprionodon*  
*porosus*  
 Dusky, *Carcharhinus obscurus*

Galapagos, *Carcharhinus galapagensis*  
 Longfin mako, *Isurus paucus*  
 Narrowtooth, *Carcharhinus brachyurus*  
 Night, *Carcharhinus signatus*  
 Sand tiger, *Carcharias taurus*  
 Sevengill, *Heptranchias perlo*  
 Sixgill, *Hexanchus griseus*  
 Smalltail, *Carcharhinus porosus*  
 Whale, *Rhincodon typus*  
 White, *Carcharodon carcharias*

\* \* \* \* \*  
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