

DRAFT AMENDMENT 17

TO THE

ATLANTIC SURFCLAM AND OCEAN QUAHOG

FISHERY MANAGEMENT PLAN

**(Includes Environmental Assessment, Regulatory Impact Review, and
Initial Regulatory Flexibility Analysis)**

February 2016

Mid-Atlantic Fishery Management Council

in cooperation with

the National Marine Fisheries Service

Draft adopted by MAFMC: October 7, 2014
Final adopted by MAFMC: February 11, 2015
Draft submitted to NOAA: April 27, 2015
Final approved by NOAA: XXXXXXXX

**A Publication of the Mid-Atlantic Fishery Management Council pursuant to National
Oceanic and Atmospheric Administration Award No. NA10NMF4410009**



1.0 EXECUTIVE SUMMARY

This document was prepared by the Mid-Atlantic Fishery Management Council (Council) in consultation with the National Oceanic and Atmospheric Administrations (NOAA) National Marine Fisheries Service (NMFS), hereafter referred to as NOAA Fisheries throughout this document. The purpose of this action (Amendment) is to implement measures for collecting fees and recovering costs associated with the management of the Atlantic surfclam and ocean quahog individual transferrable quota (ITQ) fisheries, to implement measures that facilitate incorporation of revised stock status determination criteria (i.e., biological reference points) for surfclam and ocean quahog into the Fishery Management Plan (FMP), and to implement measures that would modify or eliminate the optimum yield (OY) ranges for surfclam and ocean quahog currently in the FMP.

Summary of Alternatives

The Council analyzed the biological impacts, habitat (EFH) impacts, impacts on Endangered Species Act (ESA)-listed and Marine Mammal Protection Act (MMPA) protected species, and the social and economic impacts of the Council-considered alternatives. A detailed description and discussion of the expected environmental impacts resulting from each of the alternatives, as well as any cumulative impacts, considered in this document are provided in section 7.0

The following section presents a summary of the differences amongst the alternatives under consideration, and a qualitative summary of expected impacts (Boxes ES-1 and ES-2). For purposes of impact evaluation, No action (*Status Quo*) alternatives are compared to the baseline condition, while all other alternatives are compared to the No action/*Status Quo* alternative.

Cost Recovery Alternatives - Overall, non-preferred alternative 1 (No action/*Status Quo*) for cost recovery is expected to result in neutral biological, habitat, ESA-listed and MMPA protected resource, and socio-economic impacts, when compared to the existing impacts (Box ES-2). However, this alternative is inconsistent with the statutory requirement for a cost recovery system for the surfclam and ocean quahog fisheries. Alternatives 2-5, which includes Council-preferred alternative 5, are all expected to result in neutral biological, habitat, and ESA-listed and MMPA-protected resource impacts, when compared to the *status quo* (alternative 1). All these alternatives are expected to result in negative socio-economic impacts, because fishermen's revenues could be reduced by up to 3 percent of the ex-vessel value of surfclam and ocean quahog landings. The Council-preferred alternative 5 would bring the FMP into compliance with the requirements of the MSA, and is the same cost recovery program implemented in the golden tilefish program.

Administrative Mechanism to Update Biological Reference Points Alternatives - Both alternatives 1 (No action/*Status Quo*) and alternative 2 (Council-preferred action) are expected to result in neutral impacts on habitat, ESA-listed and MMPA-protected resources, and the socio-economic environment because these alternatives are administrative in nature and address updating biological reference point in the FMP. Alternative 1 is expected to result in slight negative biological impacts, because the current *status quo* process would not allow for updates

to biological reference points in the FMP without an Amendment (which could take up to a few years to develop). Alternative 2 would be expected to have slight positive biological impacts, when compared to alternative 1, because of more timely and efficient use of updated reference points by the fishery management system. Council-preferred alternative 2 is intended to streamline the process when new information becomes available, and ensure the FMP is kept up to date with the stock status determination criteria currently used to manage these fisheries.

Optimum Yield Range Alternatives - Alternative 1 (No action/*Status Quo*), alternative 2 (Council-preferred action), and alternative 3 (Non-preferred) are all expected to result in neutral biological, habitat, ESA-listed and MMPA-protected resource, and socio-economic impacts because these alternatives are administrative, when compared to existing impacts. The Council-preferred alternative 2 was selected by the Council to improve consistency and provide for a more efficient process when setting catch and landings limits through specifications.

Cumulative Impacts

For surfclam and ocean quahog, the Council analyzed the biological, habitat (EFH), ESA-listed and MMPA protected species, and social and economic impacts of the Council-considered alternatives. When the proposed action is considered in conjunction with all the other pressures placed on fisheries by past, present, and reasonably foreseeable future actions, it is not expected to result in any significant impacts, positive or negative; therefore, there are no significant cumulative effects on the human environment associated with the action proposed in this document (see section 7.5).

Conclusions

A detailed description and discussion of the expected environmental impacts resulting from each of the alternatives, as well as any cumulative impacts, considered in this amendment document are provided in section 7.0. None of the preferred action alternatives are associated with significant impacts to the biological, social or economic, or physical environment individually or in conjunction with other actions under National Environmental Protection Act (NEPA); therefore, a “Finding of No Significant Impact” is warranted.

Box ES-1. Summary comparison of the differences in surfclam and ocean quahog alternatives under consideration in this amendment.

Issue	Alternatives	Main Differences in Alternatives
Cost Recovery	Alternative 1 (No action/ <i>Status Quo</i>)	No cost recovery program.
	Alternative 2 (ITQ tag holder pays via a federally permitted dealer)	<i>Who pays?</i> Tag holder pays fee at the point of landing. <i>Who collects fee?</i> Dealer collects fee at point of landing and submits payment to NOAA Fisheries.
	Alternative 3 (ITQ shareholder and tag holder pays; two-tiered approach)	<i>Who pays?</i> All shareholders (permanent ITQ allocation holder) have a portion of fee assessed proportionate to the amount of allocation held by the shareholder, regardless of whether ITQ were fished or not. Remaining part of fee is collected from tag holders at point of landing. <i>Who collects fee?</i> Shareholder pays portion to NOAA Fisheries. Dealer collects other portion of fee from tag holder at point of landing and submits payment to NOAA Fisheries.
	Alternative 4 (Shareholder pays directly; equal fee per share)	<i>Who pays?</i> All shareholders (permanent ITQ allocation holder) pay NOAA Fisheries an equal fee per share, regardless of whether the shares were fished or not. <i>Who collects fee?</i> Shareholder pays NOAA Fisheries directly.
	Alternative 5 - Preferred (Shareholder pays; tilefish model)	<i>Who pays?</i> Shareholder pays NOAA Fisheries fee based on landed value for shares held. <i>Who collects fee?</i> Shareholder pays NOAA Fisheries directly.
Administrative Mechanism to Update Biological Reference Points	Alternative 1 (No action/ <i>Status Quo</i>)	Requires that reference points be updated in the FMP through an Amendment process.
	Alternative 2 - Preferred (Redefine the Status Determination Criteria)	Would not require an Amendment process, but status determination criteria must meet Council's standards for consistency with National Standards 1 and 2 definitions and peer review.
Optimum Yield Range	Alternative 1 (No action/ <i>Status Quo</i>)	Council must do Framework to modify OY Range (stays in FMP); Quotas may be set lower than OY bounds if acceptable biological catch (ABC) is lower, but cannot be set higher without doing a Framework; Inconsistent treatment of upper and lower bounds of OY range; ABC can be lower than plan OY, which is not consistent with NOAA Fisheries interpretation that scientific and management uncertainty must be addressed to achieve OY.
	Alternative 2 - Preferred (Remove OY Range from FMP; Advisors Recommend OY)	No Framework required; OY range removed from FMP; Removes inconsistencies with OY and ABC; OY value or range would be recommended by advisors as part of specifications process.
	Alternative 3 (Link Upper OY Range to ABC Recommendations)	Council must do Framework to modify OY range (stays in FMP); Upper bound of OY = ABC; At lower bound, Council can set quotas lower if ABC is less than the OY range; ABC can be lower than plan OY, which is not consistent with NOAA Fisheries interpretation that scientific and management uncertainty must be addressed to achieve OY.

Box ES-2. Overall qualitative summary of the expected impacts of various surfclam and ocean quahog alternatives considered in this document.

Issue	Alternatives	Biological	Habitat	ESA-Listed ad MMPA Protected Resources	Socio-economic
Cost Recovery	Alternative 1 (No action/ <i>Status Quo</i>)	Neutral (0)	Neutral (0)	Neutral (0)	Neutral (0)
	Alternative 2 (ITQ tag holder pays via a federally permitted dealer)	Neutral (0); administrative in nature	Neutral (0); administrative in nature	Neutral (0); administrative in nature	Negative (-); fishermen revenues could potentially decrease by up to 3 percent of ex-vessel value
	Alternative 3 (ITQ shareholder and tag holder pays; two-tiered approach)				
	Alternative 4 (Shareholder pays directly; equal fee per share)				
	Alternative 5 - Preferred (Shareholder pays; tilefish model)				
Administrative Mechanism to Update Biological Reference Points	Alternative 1 (No action/ <i>Status Quo</i>)	Neutral (0) to Slight Negative (-) because would not allow for updates to reference points in FMP when warranted without Amendment (not timely action)	Neutral (0)	Neutral (0)	Neutral (0)
	Alternative 2 - Preferred (Redefine the Status Determination Criteria)	Neutral (0) to Slight Positive (+) because of more timely and efficient use of updated BRP by management system	Neutral (0); administrative in nature	Neutral (0); administrative in nature	Neutral (0); administrative in nature
Optimum Yield Range	Alternative 1 (No action/ <i>Status Quo</i>)	Neutral (0); administrative in nature	Neutral (0); administrative in nature	Neutral (0); administrative in nature	Neutral (0); administrative in nature
	Alternative 2 - Preferred (Remove OY Range from FMP; Advisors Recommend)				
	Alternative 3 (Link Upper OY Range to ABC Recommendations)				

2.0 LIST OF FREQUENTLY USED ACRONYMS, CONVERSIONS, FMP RANGES

Frequently Used Acronyms

ABC	Acceptable Biological Catch
BRP	Biological Reference Points
BU	Bushels
CEA	Cumulative Effects Assessment
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DPS	Distinct Population Segment
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
F	Fishing Mortality Rate
FR	Federal Register
FMAT	Fishery Management Action Team
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
GARFO	Greater Atlantic Regional Fisheries Office
IFQ	Individual Fishing Quota
ITQ	Individual Transferrable Quota
LAPP	Limited Access Privilege Program
LASAF	Limited Access System Administrative Fund
LOF	List of Fisheries
MAFMC	Mid-Atlantic Fishery Management Council
MFMT	Maximum Fishing Mortality Threshold
MMPA	Marine Mammal Protection Act
MSST	Minimum Stock Size Threshold
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum Sustainable Yield
NAO	National Oceanic and Atmospheric Administration Administrative Order
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	Overfishing Limit
OY	Optimal Yield
PRA	Paperwork Reduction Act
RA	Regional Administrator
RFA	Regulatory Flexibility Analysis
RIR	Regulatory Impact Review
SARC	Stock Assessment Review Committee
SAW	Stock Assessment Workshop
SBA	Small Business Administration
SSC	Scientific and Statistical Committee
VECs	Valued Ecosystem Components

Conversions

1 metric ton (mt) = 2,204.622 pounds (lb); 1 Maine bushel = 11 lb meats; 1 Atlantic surfclam bushel = 17 lb meats;
1 ocean quahog bushel = 10 lb meats

FMP Ranges

Atlantic surfclam optimum yield (OY) range: 1.85 - 3.40 million bushels or 14,265 - 26,218 mt
Ocean quahog OY range: 4.00 - 6.00 million bushels or 18,144 - 27,216 mt

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4.0 INTRODUCTION AND BACKGROUND

This document was developed in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA)¹ and National Environmental Protection Act (NEPA), the former being the primary domestic legislation governing fisheries management in the U.S. Exclusive Economic Zone (EEZ), and the Atlantic Surfclam and Ocean Quahog Fishery Management Plan (FMP). The management regime and objectives of the fishery are detailed in the FMP, including any subsequent amendments, and are available at: <http://www.mafmc.org>.

4.1 PURPOSE AND NEED OF THE ACTION

The purpose of this action is to implement measures for collecting fees and recovering costs associated with the management of the Atlantic surfclam and ocean quahog individual transferrable quota (ITQ) fisheries and to ensure the fishery management plan (FMP) is in compliance with the MSA. The MSA requires fees be recovered for incremental costs directly related to management, data collection and analysis, and enforcement of ITQ programs. The need for this action is to ensure that fishermen that hold ITQs are bearing at least part of the costs related to the management of their ITQ fishery.

In addition, a purpose of this action is to implement measures that facilitate incorporation of revised stock status determination criteria (i.e., biological reference points) for surfclam and ocean quahog into the fishery management plan (FMP). This action is needed to ensure that the Council is applying the most updated information to management through the FMP to ensure that quota levels are set properly and that stocks are managed to prevent overfishing.

Another purpose of this action is to implement measures that would modify or eliminate the optimum yield (OY) ranges for surfclam and ocean quahog. This action is needed to ensure the Council has the flexibility to set catch and landings limits, and commercial quotas consistent with the MSA without a potential conflict between the OY ranges that currently exist in the FMP and the Scientific and Statistical Committee (SSC) recommendations for acceptable biological catch (ABC). This is further needed to ensure that stocks continue to be managed to prevent overfishing.

4.2 EXISTING COST RECOVERY PROGRAMS

The MSA requires NOAA Fisheries to collect fees to recover the “actual costs directly related to the management, data collection, and enforcement” of a Limited Access Privilege Program (LAPP; 16 U.S.C. 1854(d)(2)). NOAA Fisheries has interpreted the term to mean those costs that would not have been incurred but for the ITQ program (i.e., the incremental costs). However, another way to interpret the term “actual costs directly related to” is full costs. Under a “full cost” approach, NOAA Fisheries could have recovered more costs of managing the ITQ program. NOAA Fisheries has determined the recoverable costs associated with the

¹ Magnuson-Stevens Fishery Conservation and Management Act (MSA), portions retained plus revisions made by the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA), and available at: http://www.nmfs.noaa.gov/sfa/magact/MSA_Amended_2007%20.pdf.

management, enforcement, and data collection in the surfclam and ocean quahog ITQ program include only the incremental costs of the ITQ program, and not costs that would still have been incurred in the administration of the surfclam and ocean quahog fisheries if there was no ITQ program. Furthermore, costs associated with the initial development of the ITQ program are not included in recoverable costs. The inclusion of one-time startup costs associated with the initial development of a new management system would greatly increase the fee in the first year of any LAPP.

The current management regime in the surfclam and ocean quahog ITQ fisheries is intended to allow these fisheries to operate at the lowest possible cost (e.g., fishing effort, administration, and enforcement) given the FMP objectives. NOAA Fisheries is required by law to recover the fees associated with the incremental costs of managing the ITQ program for these species. The same cost recovery approach has already been implemented for the golden tilefish and Atlantic scallop fisheries in the NOAA Greater Atlantic Regional Fisheries Office (GARFO) region. Recoverable costs associated with management and enforcement include the following categories: personnel², travel and transportation, printing, contracts, supplies, equipment, and other categories. Under the tilefish IFQ cost recovery program, fees were collected in 2010 (\$21,438), 2011 (\$21,353), 2012 (\$14,242), and 2013 (\$35,966). Under the Atlantic scallop IFQ cost recovery program, fees were collected in 2011 (\$82,556), 2012 (\$107,015), and 2013 (\$118,510). The 2013 annual report of the IFQ cost recovery program for golden tilefish and Atlantic sea scallop are shown in Appendix A.

² Personnel cost is calculated by GARFO by multiplying hours spent by staff on tasks directly related to the IFQ program, with the hourly salary rates of those individuals. Salary rates include the Government's share of benefits, prorated. Contract expenses is calculated by GARFO as the costs of contract employees prorated for the percentage of time the contract employees spent on tasks directly related of the IFQ program.

5.0 MANAGEMENT ALTERNATIVES

Comprehensive descriptions of the current regulations for surfclam and ocean quahog as detailed in the Code of Federal Regulations (CFR) are available through the website for the NOAA Fisheries Regional Office (GARFO): <http://www.greateratlantic.fisheries.noaa.gov/regs/fr.html>.

5.1 Cost Recovery Alternatives

NOAA Fisheries is required under the MSA to collect fees to recover the costs directly related to management, data collection and analysis and enforcement of LAPPs.³ Under section 304(d)(2)(A) of the Act, the Secretary is authorized to collect a fee to recover these costs. Throughout the description of alternatives, it should be noted that the term shareholder refers to the permanent ITQ allocation holder. ITQ cage tags are issued to the shareholder and these tags may or may not be fished during the fishing year. The tags may also be leased to other entities. The shareholder may harvest surfclam and/or ocean quahog on his or her own vessel, or pay someone else to provide harvesting services. Therefore, the term tag holder is used to describe an entity that actually holds the tags, but may or may not be the actual ITQ shareholder.

The following provisions of the ITQ cost recovery program would apply to all the proposed alternatives:

- Under alternatives 2-5 the greatest ITQ fee that could be collected is 3 percent of the ex-vessel value of shellfish harvested, which is the maximum fee amount allowed by section 304(d)(2)(B) of the MSA.
- ITQ fees collected would be deposited in the Limited Access System Administrative Fund (LASAF) established in the U.S. Treasury.
- Separate accounts would be created within the LASAF to ensure that the funds from the ITQ cost recovery are used only to pay for the actual costs directly related to management, data collection, analysis, and enforcement costs of the NOAA Fisheries Northeast Region Atlantic Surfclam and Ocean Quahog ITQ Programs, as described in the MSA.⁴
- An annual ITQ report would be generated.⁵ This report will be available online and on request from NOAA Fisheries. A copy of the report will be provided to the Council.

³ A limited access privilege is a permit, issued as part of a limited access system, to harvest a quantity of fish expressed by a unit or units representing a portion of the total allowable catch of the fishery that may be received or held for exclusive use by a person. This includes individual fishing quotas (IFQ). An ITQ is an IFQ program where privileges can be transferred subsequent to initial allocations.

⁴ Up to 25- percent of the fees collected can be used for purchasing quota for small-vessel fisherman or quota for new entrants into the fishery, if such a program is submitted by the Council and approved by NOAA Fisheries (as described by paragraph 303A(g) of the MSA).

⁵ The report would include annual information regarding the amount and value of Atlantic surfclam and ocean quahog landed during the fishing year, the associated cost recovery fees, and the status of those fees. This report would also detail the costs incurred by NOAA Fisheries, including the calculation of the recoverable costs for the management, enforcement, and data collection, incurred by NOAA Fisheries during the fishing year.

- The ex-vessel value⁶ of an ITQ landing would equal the sum of all payments⁷ of monetary worth made to fishermen for the sale of the shellfish under the tags provided, during the fishing year.
- NOAA Fisheries will bill for the fees to be collected for the fishing year to those required to pay (i.e., dealers, shareholders, or tag holders depending on the alternative considered). Bills may be mailed or made available electronically via the internet. Payment of the ITQ fee must be made at the end of the fishing season. Payments of the ITQ fee must be made electronically via the Federal web portal, www.pay.gov, or other internet sites as designated by the Regional Administrator (RA⁸). The RA has discretion to authorize payment by check, if necessary. NOAA Fisheries will address any payment liabilities, as needed.
- NOAA Fisheries will estimate the ITQ percentage fee to be applied for the first year of implementation of cost recovery, based on prior year actual costs and the anticipated ex-vessel value of the fishery.
- The RA would review the cost recovery fee annually to determine if adjustment is warranted. Those to be issued bills (i.e., dealers, shareholders, or tag holders depending on the alternative considered) will need to know what ITQ fee percentage will be applied, the RA would publish a notification of the ITQ fee percentage (or ITQ per tag fee if applicable) in the Federal Register each year, prior to the start of the upcoming fishing year. This will be based on prior year estimates of costs. At the end of the fishing year, the Regional Administrator would determine if a fee adjustment is warranted. Factors considered in the review include the catch subject to the ITQ cost recovery, projected ex-vessel value of the catch, costs directly related to the management, enforcement, and data collection of the ITQ program, and expected nonpayment of fee liabilities. If a fee adjustment is warranted, the RA would adjust the ITQ fee percentage in the next fishing year.
- Each year the RA would publish a notification of the ITQ fee percentage and/or per-tag fee for the next fishing year in the Federal Register.

⁶ “Value” refers to the worth, in U.S. dollars, of any amount of landed ITQ surfclam and ocean quahog as determined by the sale, or potential economic return for the sale, of those shellfish. Actual ex-vessel value would be the amount of money received as payment for the tag holder’s ITQ shellfish sold, as reported by a federally permitted dealer. In other words, this ex-vessel value amount will not be averaged with the other dealer prices for the purposes of calculating cost recovery fees.

⁷ This would include any retro-payments (e.g., bonuses, delayed partial payments, post-season payments) made to the tag holder (or shareholder if not one in the same) for previously landed surfclams and/or ocean quahogs. Retro-payments would be part of the ex-vessel value and as such have a fee liability. If they were received after the initial payment, but during the same fishing year, the cost recovery fee for those retro-payments also would be due at the end of the fishing season. It is the responsibility of the dealer to update any previously reported landing report to reflect these “retro-payments”.

⁸ The reason for the 100- percent electronic fee collection system is to minimize paper transactions, and reduce the administrative burden that would be charged to the industry. Presently, the NOAA Fisheries GARFO is not equipped to process paper collections. Instructions for electronic payment will be made available on both the payment website and the paper bill. Payment options will include payment via a plastic card (e.g. Visa, MasterCard, Discover, etc.), or direct automated clearing house (ACH) withdrawal from a designated checking account.

- Those issued bills will provide payment to NOAA Fisheries at the end of the fishing season. Early payment may be allowed,⁹ but it would not relieve a federally permitted dealer, tag holder, or shareholder of any associated fee collection or reporting requirement.

5.1.1 Alternative 1 (No action - No Cost Recovery)

Under this alternative, cost recovery would not be implemented for the Atlantic surfclam and ocean quahog ITQ fisheries. This means no fees would be collected to cover the costs directly related to management, data collection and analysis, and enforcement of ITQ programs. This alternative would be contrary to the Congressional mandate to collect fees for ITQ programs as specified in the MSA.

5.1.2 Alternative 2 (ITQ tag holder pays via a federally permitted dealer)

Alternative 2 would implement a cost recovery system where federally permitted dealers would collect the fee to be recovered at the point of purchase when the tag holder uses the cage tags to land surfclam or ocean quahog. The person that submits the tags at the point of landing (i.e., tag holder) would be responsible for paying the fee to the dealer. This would include tag holders that are, or are not, the actual shareholder.

The dealer would be responsible for collecting the fees from the tag holder at the point of purchase and submitting the payment to NOAA Fisheries at the end of the fishing season. The dollar amount of the fee due would be determined by multiplying the ITQ fee percentage by the actual ex-vessel value of each ITQ landing made using tags.

5.1.3 Alternative 3 (ITQ shareholder and tag holder pays; two-tiered approach)

Alternative 3 would implement a cost recovery system where shareholders (permanent ITQ allocation holders) would have a percentage of the fee assessed proportionate to the amount of allocation (shares) held by the shareholder. This initial portion of the fee would be paid by all shareholders regardless of whether their ITQ was fished or not. The remaining part of the fee would be paid via federally permitted dealers that would collect the fee to be recovered at the point of purchase when the tag holder uses the tags to land surfclam or ocean quahog. Whoever holds the tags at the point of landing (i.e., tag holder) would be responsible for paying the fee to the dealer. This would include tag holders that are, or are not, the actual shareholder.

The dealer would be responsible for collecting fees at the point of purchase and submitting the payment to NOAA Fisheries at the end of the fishing season. The dollar amount of the fee due would be determined by multiplying the ITQ fee percentage by the actual ex-vessel value of each ITQ landing made using tags.

⁹ Currently there is not a mechanism at GARFO to allow early payments. Payment is allowed once the bills are sent out and the payment system for cost recovery is not accessible all year. This could increase administrative costs.

5.1.4 Alternative 4 (Shareholder pays directly; equal fee per share)

Alternative 4 would implement a cost recovery system where the shareholders (permanent ITQ allocation holders) would pay the fee directly to NOAA Fisheries, and the fee would be shared by all shareholders regardless of whether the ITQ was fished or not.

The dollar amount of the per-share fee would be determined by dividing the total recoverable costs of managing the fishery by the number of ITQ shares. The shareholder would pay the fee for all of the held shares directly to NOAA Fisheries. The total recoverable costs could not exceed 3 percent of the total ex-vessel value of ITQ landings for the surfclam or ocean quahog fisheries.

5.1.5 Alternative 5 (Preferred: Shareholder pays; golden tilefish model)

Alternative 5 would implement a cost recovery system where the shareholder (permanent ITQ allocation holders) would pay the fee directly to NOAA Fisheries, and the fee would be based on the landed value of surfclam and ocean quahog associated with the shares held, even if the associated tags are leased and subsequently landed by another party.

The dollar amount of the fee due would be determined by multiplying the ITQ fee percentage by the total ex-vessel value of ITQ landings. The shareholder would pay the fee for the landed product associated with their held shares (i.e., their annual tags that are used to land product), directly to NOAA Fisheries.

5.1.6 Considered but rejected from further analysis

The Fishery Management Action Team (FMAT) considered an alternative, where the ITQ permit holder will pay the fee associated with the cost recovery program in order to obtain the cage tags at the beginning of the fishing year based on assumed landings for the upcoming fishing year. This was rejected because the MSA stipulates that the recovered fee must be based on the landings, and this implies that those landings and tag use must have already occurred. The FMAT discussed the new entrant promotion program, where up to 25 percent of the fees collected can be used for purchasing quota for small-vessel fisherman or quota for new entrants into the fishery, if such a program is submitted by the Council and approved by NOAA Fisheries. However, the Council has not indicated interest in implementing this program therefore it is not included in the alternatives presented by the FMAT. A lien registry could be used to identify shareholders more accurately given the numbers of transactions with tags that occur in this fishery; however, a formal catch share lien registry has never been implemented by NOAA Fisheries.

5.2 Administrative Mechanism to Update Biological Reference Points Alternatives

Under National Standard 1, the MSA requires that each Council FMP define overfishing as a rate or level of fishing mortality that jeopardizes a fishery's capacity to produce maximum

sustainable yield (MSY) on a continuing basis, and defines an overfished stock as a stock size that is less than a minimum biomass threshold. The MSA also requires that each FMP specify objective and measurable status determination criteria for identifying when stocks or stock complexes covered by the FMP are overfished. To fulfill the requirements of the MSA, status determination criteria are comprised of two components: 1) a maximum fishing mortality threshold (section 600.310 (d)(2)(i)) and 2) a minimum stock size threshold (section 600.310 (d)(2)(ii)).

5.2.1 Alternative 1 (No Action)

Under this no action alternative, the status determination criteria, which include a maximum fishing mortality threshold (MFMT; F_{MSY} ; or reasonable proxy thereof) and the minimum stock size threshold (MSST; or reasonable proxy thereof) for each species managed under this FMP would remain unchanged and as defined for ocean quahog and surfclam under Amendment 12 to the FMP (1998) and Amendment 13 to the FMP (2003). These definitions of status determination criteria have remained unchanged for these species since they were described in the FMP in 1998 and 2003, and may only be modified by an Amendment to the FMP (Table 1).

Overfishing for these species is currently defined to occur when the fishing mortality rate exceeds the threshold fishing mortality rate of F_{MSY} . Since F_{MSY} cannot be reliably estimated for surfclam and ocean quahog stocks, proxies are used.

Table 1. Definitions for the MFMT and MSST for surfclam and ocean quahog.

Stock Status Determination Criteria		
Species	Current Definition In FMP	Needs To Be Updated in FMP
Surfclam - MFMT	$F=M$ (2003)	$F=M$ (2013)
Surfclam - MSST	$B_{Threshold} = \frac{1}{4}$ the 1999 biomass (2003)	$B_{Threshold} = \frac{1}{4}$ the 1999 biomass (2013)
Ocean quahog - MFMT	$F_{25\%MSP}$ (1998)	$F_{45\%MSP}$ (2009)
Ocean quahog - MSST	$B_{Threshold} = \frac{1}{4}$ the virgin biomass of the whole stock; 1998)	$B_{Threshold} = 40\%$ of the 1978 whole stock biomass (2009)

For the surfclam and ocean quahog stocks B_{MSY} cannot be reliably estimated; therefore, proxies are used. Updates to the values associated with those definitions may occur when new information becomes available. The Council is not required to undertake any specific action when this occurs, as using the updated values is consistent with National Standard 2. However, under this no action alternative, incorporation of changes to the status determination criteria would continue to occur through an amendment process as necessary.

5.2.2 Alternative 2 (Preferred: Redefine the Status Determination Criteria)

Under this alternative, the status determination criteria for each of the species managed under the FMP would be defined as follows.

The maximum fishing mortality threshold for each of the species under the FMP is defined as F_{MSY} (or a reasonable proxy thereof) as a function of productive capacity, and based upon the best scientific information consistent with National Standards 1 and 2. Specifically, F_{MSY} is the fishing mortality rate associated with MSY. The maximum fishing mortality threshold (F_{MSY}) or a reasonable proxy may be defined as a function of (but not limited to): total stock biomass, spawning stock biomass, total egg production, and may include males, females, both, or combinations and ratios thereof which provide the best measure of productive capacity for each of the species managed under the FMP. Exceeding the established fishing mortality threshold constitutes overfishing as defined by the MSA.

The minimum stock size threshold for each of the species under the FMP is defined as $\frac{1}{2} B_{MSY}$ (or a reasonable proxy thereof) as a function of productive capacity, and based upon the best scientific information consistent with National Standards 1 and 2. The minimum stock size threshold ($\frac{1}{2} B_{MSY}$) or a reasonable proxy may be defined as a function of (but not limited to): total stock biomass, spawning stock biomass, total egg production, and may include males, females, both, or combinations and ratios thereof which provide the best measure of productive capacity for each of the species managed under the FMP. The minimum stock size threshold is the level of productive capacity associated with the relevant $\frac{1}{2}$ MSY level. Should the measure of productive capacity for the stock or stock complex fall below this minimum threshold, the stock or stock complex is considered overfished. The target for rebuilding is specified as B_{MSY} (or reasonable proxy thereof) at the level of productive capacity associated with the relevant MSY level, under the same definition of productive capacity as specified for the minimum stock size threshold.

The definitions for status determination criteria for these species are broadened under this alternative to allow for greater flexibility in incorporating changes to the definitions of the maximum fishing mortality threshold and/or minimum stock size threshold as the best scientific information consistent with National Standards 1 and 2 becomes available. As such, the following describes the potential sources of peer-reviewed scientific advice on status determination criteria and the current process of how that scientific advice will move forward in the development of management advice through the Council's annual specification process.

Specific definitions or modifications to the status determinations criteria, and their associated values, would result from the most recent peer-reviewed stock assessments and their panelist recommendations. The Northeast Regional Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC) process is the primary mechanism utilized in the Northeast Region at present to review scientific stock assessment advice, including status determination criteria, for federally-managed species. There are also periodic reviews, which occur outside the

SAW/SARC process that are subject to rigorous peer-review and may also result in scientific advice to modify or change the existing stock status determination criteria.¹⁰

These periodic reviews outside the SARC process could be conducted by any of the following listed below, as deemed appropriate by the managing authorities.

- MAFMC SSC Review
- MAFMC Externally Contracted Reviews with Independent Experts (e.g., Center for Independent Experts - CIE)
- NOAA Fisheries Internally Conducted Review (e.g., Comprised of NOAA Fisheries Scientific and Technical Experts from NOAA Fisheries Science Centers or Regions)
- NOAA Fisheries Externally Contracted Review with Independent Experts (e.g., CIE)

The scientific advice developed on stock status determination criteria is then provided to the Council's SSC. The SSC uses this information to develop acceptable biological catch (ABC) recommendations which address scientific uncertainty based on the information provided in the peer reviewed assessment of the stock. These recommendations are then provided to the Council.

The Council's Industry Advisory groups are often engaged to provide additional management recommendations to the Council. The Council can then utilize the management advice from their advisory groups in developing their own recommendations put forward through the regulatory process of setting the annual specifications for the upcoming fishing year, which is the primary mechanism for adjusting management measures to meet the goals of the FMP. The recommendations from the Council can move forward in the specification package to NOAA Fisheries for implementation under their regulatory process. The environmental assessment and evaluation of applicable laws in the annual or multi-year specification document currently provides a thorough analysis of this information and the extent to which the information is applied.

5.3 Optimum Yield Range Alternatives

5.3.1 Alternative 1 (No Action)

Under this alternative, the FMP specified OY ranges would remain as described in the FMP. The FMP specifies a surfclam OY range from 1.85 - 3.40 million bushels or 14,265 - 26,218 mt be used to set the surfclam commercial quota. For ocean quahog the OY range is 4.00 - 6.00 million bushels or 18,144 - 27,216 mt. The Council must select a commercial quota within this range. Modification to the upper end of the range would require a Framework adjustment. Commercial quotas may be set lower than OY bounds if the SSC sets a lower ABC, resulting in an OY range that is higher than ABC.

¹⁰ For example, in 2006 scientific advice on summer flounder status determination criteria was provided through a NMFS internally conducted review at the "Summer Flounder Assessment and Biological Reference Point Update for 2006." The review panel was composed of experts from NOAA Fisheries and academia.

5.3.2 Alternative 2 (Preferred: Remove OY Range from FMP; Advisors Recommend)

Under this alternative, the OY ranges would be removed from the FMP and commercial quotas for surfclam and ocean quahog would continue to be set under the existing system of catch limits. This is consistent with the other FMPs the Council manages; surfclam and ocean quahog are the only stocks with OY ranges specified in the FMP.

As prescribed under this system, the Council may not exceed the ABC recommendations of the SSC, and would continue to specify annual catch limits, targets, and commercial quotas as otherwise described in the FMP. As part of the specifications process, the advisory panel will develop recommendations for commercial quotas, including OY recommendations which will be provided to the Council. For example, this could be completed as part of the advisor's Fishery Performance Report development process.

5.3.3 Alternative 3 (Link Upper Bound of OY Range to ABC Recommendations)

Under this alternative, the upper bound of the OY range for both surfclam and ocean quahog would be equal to the ABC, which is specified by the SSC for each of these stocks. The FMP prescribes that $ACL=ABC$. As noted in the CFR§648.72, specifications for surfclam and ocean quahog may be specified below the OY ranges in the FMP, if the ABC recommendation of the SSC limits the ACL to a value less than the minimum of the range indicated. This alternative addresses the potential disconnect at the upper end of the OY range.

5.3.4 Considered but rejected from Further Analysis

The FMAT considered modifying the values in the surfclam and ocean quahog OY ranges; however a more complete biological and economic analysis would be required to do so. The OY ranges in the plan were based on scientific information (stock assessments) and industry input in the 1980's and these data would need to be reevaluated. Even with an updated range, there is still the possibility that the SSC might recommend an ABC above the current OY range and the Council would not be able to develop viable commercial quota recommendation without going through a Framework adjustment process (which takes about a year). Therefore, this approach was considered but rejected from further analysis as it does not address the issue of potential disconnect with the newly implemented catch limit system.

6.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT AND FISHERIES

6.1 Description of the Managed Resources

6.1.1 Description of the Fisheries

The management unit is all Atlantic surfclam (*Spisula solidissima*) and ocean quahog (*Arctica islandica*) in the Atlantic EEZ. The commercial fisheries for surfclam and ocean quahog are fully described in Amendment 13 to the FMP (MAFMC 2003). Clam dredges (a bottom tending mobile gear) are utilized in the commercial fisheries for both species. An overview of commercial landings for both species is provided below in Table 2.

Table 2. Federal Surfclam and Ocean Quahog Quotas and Landings: 1998 - 2016.

Year	Surfclam ('000 bu)			Ocean Quahog ('000 bu)		
	Landings ^a	Quota	% Harvested	Landings ^b	Quota	% Harvested
1998	2,365	2,565	92%	3,897	4,000	97%
1999	2,539	2,565	99%	3,770	4,500	84%
2000	2,565	2,565	100%	3,161	4,500	70%
2001	2,855	2,850	100%	3,691	4,500	82%
2002	3,113	3,135	99%	3,871	4,500	86%
2003	3,241	3,250	100%	4,069	4,500	90%
2004	3,138	3,400	92%	3,825	5,000	77%
2005	2,744	3,400	81%	2,940	5,333	55%
2006	3,057	3,400	90%	3,066	5,333	57%
2007	3,231	3,400	95%	3,366	5,333	63%
2008	2,919	3,400	86%	3,426	5,333	64%
2009	2,602	3,400	77%	3,443	5,333	65%
2010	2,332	3,400	69%	3,554	5,333	67%
2011	2,443	3,400	72%	3,116	5,333	58%
2012	2,341	3,400	69%	3,454	5,333	65%
2013	2,390	3,400	70%	3,201	5,333	60%
2014	359 ^c	3,400	NA	845 ^c	5,333	NA
2015	NA	3,400	NA	NA	5,333	NA
2016	NA	3,400	NA	NA	5,333	NA

^a 1 surfclam bushel is approximately 17 lb. ^b 1 ocean quahog bushel is approximately 10 lb. ^c Incomplete landings year. NA = Not yet available. Source: NOAA Fisheries Clam Vessel Logbook Reports.

Paralytic Shellfish Poisoning (PSP) is a public health concern for surfclam and ocean quahog. It is caused by saxitoxins, produced by the alga *Alexandrium fundyense* (red tide), that accumulate in shellfish, and has resulted in closures for these fisheries in the Georges Bank Area of the EEZ. NOAA Fisheries recently reopened portions of the closed areas for harvest of surfclam and ocean quahog for those vessels using a "Protocol for Onboard Screening and Dockside Testing in Molluscan Shellfish" that is designed to test and verify that clams harvested from these areas are safe.¹¹

Additional information on these fisheries can be found in Council meeting materials available at: <http://www.mafmc.org>.

6.1.2 Description of the Stock (Including Status, Stock Characteristics, and Ecological Relationships)

Reports on stock status, including SAW/SARC reports, and assessment update reports are available online at the NOAA Northeast Fisheries Science Center (NEFSC) website: <http://www.nefsc.noaa.gov/>. EFH Source Documents, which include details on stock characteristics and ecological relationships, are available at the following website: <http://www.nefsc.noaa.gov/nefsc/habitat/efh/>.

6.1.2.1 Atlantic Surfclam

The most recent assessment (NEFSC 2013) indicated that the Atlantic surfclam stock was not overfished and overfishing is not occurring relative to the biological reference points. The 2011 $F = 0.027$, below the reference point $F_{MSYPROXY} = M = 0.15$ (NEFSC 2013). Stock biomass for the entire resource was estimated to be 1.06 million mt, slightly above the $B_{MSYPROXY} = 0.97$ million mt.

6.1.2.2 Ocean Quahog

The most recent assessment update (Chute et al. 2013) indicated that the ocean quahog stock is not overfished and overfishing is not occurring relative to the biological reference points. The 2011 $F = 0.010 \text{ y}^{-1}$, below the reference point $F_{MSYPROXY} = F_{45\%} = 0.022 \text{ y}^{-1}$ (Chute et al., 2013). Stock biomass for the entire resource in 2011 was estimated to be 2.96 million mt, above the $B_{MSYPROXY} = 1.73$ million mt. The SSC noted in their May 2013 report to the Council Chair¹², that the "fishing mortality rate reference point is deemed to be non-credible, both because of the species to which quahogs were compared were inappropriate and because the details of the calculations of spawning-per-recruit for any particular level were poorly justified."

¹¹ For additional information see:

<http://www.greateratlantic.fisheries.noaa.gov/nr/2013/August/13clamsreopengbcaphl.pdf>.

¹² Available at: <http://www.mafmc.org>.

6.1.3 Non-Target Species

The term "bycatch," as defined by the MSA, means fish that are harvested in a fishery but that are not sold or kept for personal use. Bycatch includes the discard of whole fish at sea or elsewhere, including economic and regulatory discards, and fishing mortality due to an encounter with fishing gear that does not result in capture of fish (i.e., unobserved fishing mortality).

Northeast Fisheries Observer Program directed trips for surfclam (sample size (N) = 16) and ocean quahog (N = 30) with discards from 2004-2006, were used to characterize non-target and bycatch species for these fisheries (Chute, T., Pers. Comm., July 3, 2013). For ocean quahog and surfclam, the bulk of the bycatch from the clam dredges is non-living (debris/shell), with a mean of 8 percent live bycatch (range 0-19 percent) for ocean quahog trips and 3 percent live bycatch (range 0-7 percent) for surfclam trips. For ocean quahog trips, the top live bycatch, ordered by declining contribution, are sea scallop, little skate, skate (unclassified), monkfish, clapper clam, clapper (unclassified), snail (unclassified), spiny dogfish, winter skate, rock crab, Jonah crab, sea star (unclassified), whelk (unclassified), mollusk (unclassified), summer flounder, ocean pout, crab (unclassified), and longfin sculpin. For surfclam trips, the top live bycatch items include sea scallop, ocean quahog, little skate, clapper clam, stargazer (unclassified), monkfish, spiny dogfish, sea star (unclassified), moon snail (unclassified), clapper (unclassified), sponge (unclassified), horseshoe crab, sand dollar, snail (unclassified), winter skate, rock crab, skate (unclassified), and eggs (unclassified). The surfclam and ocean quahog fisheries are targeted fisheries, and live bycatch constitutes a small percent of total bycatch.

6.2 Habitat (Including Essential Fish Habitat)

A description of the habitat associated with the surfclam and ocean quahog fisheries is presented in the appendices of Amendment 13 to the FMP (MAFMC 2003), and a brief summary of that information is given here. The impact of fishing on surfclam and ocean quahog on habitat (and EFH) and the impact of the surfclam and ocean quahog fisheries on other species' habitat and EFH can be found in Amendment 12 (MAFMC 1998) and 13 to the FMP (MAFMC 2003). Potential impacts associated with the measures proposed in this document on habitat (including EFH) are discussed in section 7.2.

6.2.1 Physical Environment

Detailed information on the affected physical and biological environments inhabited by the managed resources is available in Stevenson et al. (2004). The managed resources inhabit the Northeast U.S. Shelf Ecosystem, which has been described as including the area from the Gulf of Maine south to Cape Hatteras, extending from the coast seaward to the edge of the continental shelf, including the slope sea offshore to the Gulf Stream. The continental slope includes the area east of the shelf, out to a depth of 2000 m. Four distinct sub-regions comprise the NOAA Fisheries Northeast Region: the Gulf of Maine, Georges Bank, the Mid-Atlantic Bight, and the continental slope. The Gulf of Maine is an enclosed coastal sea, characterized by relatively cold waters and deep basins, with a patchwork of various sediment types. Georges Bank is a relatively shallow coastal plateau that slopes gently from north to south and has steep submarine canyons on its eastern and southeastern edge. It is characterized by highly productive, well-mixed waters

and strong currents. The Mid-Atlantic Bight is comprised of the sandy, relatively flat, gently sloping continental shelf from southern New England to Cape Hatteras, North Carolina. The continental slope begins at the continental shelf break and continues eastward with increasing depth until it becomes the continental rise. It is fairly homogenous, with exceptions at the shelf break, some of the canyons, the Hudson Shelf Valley, and in areas of glacially rafted hard bottom. The environment that could potentially be affected by the proposed action overlaps with EFH for the managed resources. The following sections describe where to find detailed information on EFH and any past actions taken in the FMPs to minimize adverse EFH effects to the extent practicable.

6.2.2 Essential Fish Habitat (EFH)

Information on surfclam and ocean quahog habitat requirements can be found in the documents titled, "Essential Fish Habitat Source Document: Atlantic Surfclam, *Spisula solidissima*, Life History and Habitat Characteristics." (Cargnelli et al., 1999a) and "Essential Fish Habitat Source Document: Ocean Quahog, *Arctica islandica*, Life History and Habitat Characteristics" (Cargnelli et al., 1999b). Electronic versions of these source documents are available at this website: <http://www.nefsc.noaa.gov/nefsc/habitat/efh/>. The current designations of EFH by life history stage for surfclam and ocean quahog are provided here:

Atlantic surfclam juveniles and adults: EFH habitat is defined as throughout the substrate, to a depth of three feet below the water/sediment interface, within federal waters from the eastern edge of Georges Bank and the Gulf of Maine throughout the Atlantic EEZ, in areas that encompass the top 90 percent of all the ranked ten-minute squares for the area where surfclams were caught in the NEFSC surfclam and ocean quahog dredge surveys. Surfclams generally occur from the beach zone to a [water] depth of about 200 feet, but beyond about 125 feet abundance is low.

Ocean quahog juveniles and adults: EFH habitat is defined as throughout the substrate, to a depth of three feet below the water/sediment interface, within federal waters from the eastern edge of Georges Bank and the Gulf of Maine throughout the Atlantic EEZ, in areas that encompass the top 90 percent of all the ranked ten-minute squares for the area where ocean quahogs were caught in the NEFSC surfclam and ocean quahog dredge surveys. Distribution in the western Atlantic ranges in [water] depths from 30 feet to about 800 feet. Ocean quahogs are rarely found where bottom water temperatures exceed 60° F, and occur progressively further offshore between Cape Cod and Cape Hatteras.

There are other federally-managed species with life stages that occupy essential benthic habitats that may be susceptible to adverse impacts from hydraulic clam dredges; descriptions of these are given in Table 1 of Appendix B (from Stevenson et al., 2004) and are available at: <http://www.greateratlantic.fisheries.noaa.gov/hcd/list.htm>.

6.2.3 Fishery Impact Considerations

Any actions implemented in the FMP that affect species with overlapping EFH were considered in the EFH assessment for Amendment 13 to the FMP (MAFMC 2003). Atlantic surfclam and

ocean quahog are primarily landed by hydraulic clam dredges. Amendment 13 included alternatives to minimize the adverse impacts of fishing gear on EFH (as required pursuant to section 303(a)(7) of the MSA). As stated in section 2.2 of Amendment 13, the prime habitat of surfclam and ocean quahog consists of sandy substrates with no vegetation or benthic 'structures' that could be damaged by the passing of a hydraulic dredge. In these 'high energy' environments, it is thought that the recovery time following passage of a clam dredge is relatively short. Because of the potential that the fishery adversely impacts EFH for a number of managed species, eight action alternatives (including closed area alternatives) for minimizing those impacts were considered by the Council in Amendment 13.

A panel of experts who participated in a 2001 workshop to evaluate the potential habitat impacts of fishing gears used in the Northeast region concluded that there are potentially large, localized impacts of hydraulic clam dredges on the biological and physical structure of sandy benthic habitats (NEFSC 2002). The Council concluded in Amendment 13 that there may be some adverse effects of clam dredging on EFH, but concurred with the workshop panel that the effects are short term and minimal because the fishery occurs in a relatively small area (compared to the area impacted by scallop dredges or bottom trawls) and primarily in high energy sand habitats. The panel concluded that biological communities would recover within months to years (depending on what species was affected) and physical structure within days in high energy environments to months in low energy environments. The preamble to the EFH Final Rule (January 17, 2002; 67 FR 2343) defines temporary impacts as those that are limited in duration and that allow the particular environment to recover without measurable impact.

Additionally, at the time that workshop was held, the overall area impacted by the clam fisheries was relatively small (approximately 100 square nautical miles), compared to the large area of high energy sand on the continental shelf. The closed area alternatives that were considered in Amendment 13 were analyzed for their biological, economic, and social impacts, but given the results of the gear effects analysis in that document (summarized above), the Council concluded that none of them were necessary or practicable. Since 2003, when Amendment 13 was implemented, the area open to surfclam and ocean quahog harvesting has expanded to include a large area on Georges Bank that had previously been closed since 1990 due to the presence of the toxin that causes PSP in the tissues of surfclam and ocean quahog (NMFS 2012 and 2013). The effects of this fishery on EFH have not been re-evaluated since 2003.

Amendment 13 to the Northeast Multispecies FMP (NEFMC 2003), developed by the New England Fishery Management Council (NEFMC) and implemented in 2003, prohibited the use of all mobile, bottom-tending gears (including hydraulic clam dredges) in seven habitat closed areas (total area 2,811 square nautical miles) on Georges Bank and in the Gulf of Maine. These regulations are still in place, but are currently being re-considered by the NEFMC as part of an overall evaluation of all area management measures in the region that are designed to protect EFH from fishing. Proposed changes will be analyzed in Omnibus EFH Amendment 2 and are expected to go into effect in 2015. Given the fact that the alternatives in this document would not adversely affect EFH (see Section 7.0), and that the habitat closures currently in place in New England include prohibitions on clam dredges, no alternatives to minimize adverse effects on EFH are presented in this document.

6.3 ESA-Listed Species and MMPA Protected Species

6.3.1 Species in the Fisheries Environment

There are numerous species inhabiting the affected environment of the surfclam and ocean quahog fisheries that are afforded protection under the Endangered Species Act (ESA) of 1973 (i.e., for those designated as threatened or endangered) and the Marine Mammal Protection Act of 1972 (MMPA). Table 3 provides protected species of marine mammals, sea turtles, and fish (ESA listed and non-listed species) that occur within the management units for surfclam and ocean quahog.

More detailed description of the species listed in Table 3, including their environment, ecological relationships and life history information including recent stock status, is available at: <http://www.greateratlantic.fisheries.noaa.gov/Protected/>.

Table 3. Species Protected Under the ESA and/or MMPA that May Occur in the Affected Environment of the Surfclam and Ocean Quahog Fisheries.

Species	Status	Potentially affected by this action?
Cetaceans		
North Atlantic right whale (<i>Eubalaena glacialis</i>)	Endangered	No
Humpback whale (<i>Megaptera novaeangliae</i>)	Endangered	No
Fin whale (<i>Balaenoptera physalus</i>)	Endangered	No
Sei whale (<i>Balaenoptera borealis</i>)	Endangered	No
Blue whale (<i>Balaenoptera musculus</i>)	Endangered	No
Sperm whale (<i>Physeter macrocephalus</i>)	Endangered	No
Minke whale (<i>Balaenoptera acutorostrata</i>)	Protected	No
Pilot whale (<i>Globicephala spp.</i>) ¹	Protected	No
Risso's dolphin (<i>Grampus griseus</i>)	Protected	No
Atlantic white-sided dolphin (<i>Lagenorhynchus acutus</i>)	Protected	No
Short Beaked Common dolphin (<i>Delphinus delphis</i>) ²	Protected	No
Bottlenose dolphin (<i>Tursiops truncatus</i>) ³	Protected	No
Harbor porpoise (<i>Phocoena phocoena</i>)	Protected	No
Sea Turtles		
Leatherback sea turtle (<i>Dermochelys coriacea</i>)	Endangered	No
Kemp's ridley sea turtle (<i>Lepidochelys kempii</i>)	Endangered	No
Green sea turtle (<i>Chelonia mydas</i>)	Endangered ⁴	No
Loggerhead sea turtle (<i>Caretta caretta</i>), Northwest	Threatened	No

Species	Status	Potentially affected by this action?
Atlantic DPS		
Hawksbill sea turtle (<i>Eretmochelys imbricate</i>)	Endangered	No
Fish		
Shortnose sturgeon (<i>Acipenser brevirostrum</i>)	Endangered	No
Atlantic salmon (<i>Salmo salar</i>)	Endangered	No
Atlantic sturgeon (<i>Acipenser oxyrinchus</i>)		
<i>Gulf of Maine DPS</i>	Threatened	No
<i>New York Bight DPS, Chesapeake Bay DPS, Carolina DPS & South Atlantic DPS</i>	Endangered	No
Cusk (<i>Brosme brosme</i>)	Candidate	No
Pinnipeds		
Harbor seal (<i>Phoca vitulina</i>)	Protected	No
Gray seal (<i>Halichoerus grypus</i>)	Protected	No
Harp seal (<i>Phoca groenlandicus</i>)	Protected	No
Hooded seal (<i>Cystophora cristata</i>)	Protected	No
Critical Habitat		
North Atlantic Right Whale ⁵	ESA-listed	No
Northwest Atlantic DPS of Loggerhead Sea Turtle	ESA-listed	No
<i>Notes:</i>		
¹ There are 2 species of pilot whales: short finned (<i>G. melas melas</i>) and long finned (<i>G. macrorhynchus</i>). Due to the difficulties in identifying the species at sea, they are often just referred to as <i>Globicephala spp.</i>		
² Prior to 2008, this species was called “common dolphin.”		
³ This includes the Western North Atlantic Offshore, Northern Migratory Coastal, and Southern Migratory Coastal Stocks of Bottlenose Dolphins.		
⁴ Green turtles in U.S. waters are listed as threatened except for the Florida breeding population which is listed as endangered. Due to the inability to distinguish between these populations away from the nesting beach, green turtles are considered endangered wherever they occur in U.S. waters. On March 23, 2015, a proposed rule was issued to remove the current range-wide listing and, in its place, list eight DPSs as threatened and three as endangered (80 FR 15272).		
⁵ Originally designated June 3, 1994 (59 FR 28805); Newly proposed February 20, 2015 (80 FR 9314).		

6.3.2 Commercial Fisheries Interactions

A description of the areas fished commercially for surfclam and ocean quahog (i.e., area affected by the proposed action) is given in section 6.4.2. The commercial fisheries for surfclam and ocean quahogs are prosecuted with clam dredges, a type of bottom tending mobile gear. There have been no observed interactions of any protected species of marine mammals, sea turtles, or

fish with clam dredges and therefore, operation of surfclam and ocean quahog fisheries are not expected to pose any serious injury or mortality risk to these species, as shown in Table 3 and the following resources.

http://www.nefsc.noaa.gov/fsb/take_reports/nefop.html;
http://www.nmfs.noaa.gov/pr/sars/pdf/ao2013_tm228.pdf;
<http://www.nmfs.noaa.gov/pr/interactions/lof/>.

6.4 Human Communities and Economic Environment

A detailed description of the social and economic aspects of the fisheries for surfclam and ocean quahogs was presented in Amendment 13 to the FMP (MAFMC 2003). When Amendment 13 to the FMP was developed, the Council hired Dr. Bonnie McCay and her associates at Rutgers University to describe the ports and communities that are associated with the surfclam and ocean quahog fisheries (McCay and Cieri 2000). The researchers did an extensive job characterizing the three main fisheries (non-Maine ocean quahog, Maine ocean quahog, and surfclam). In addition, Fishery Performance Reports prepared by industry advisors, provide additional information on the social and economic environments and are available at <http://www.mafmc.org>. Recent trends in the fisheries are presented below.

6.4.1 Fishery Descriptions

6.4.1.1 Atlantic Surfclam

The total number of vessels participating in the surfclam fishery has been relatively stable from 2003 through 2013, ranging from 29 vessels in 2006 to 40 vessels in 2013 (Table 4). In 2013, 2.4 million bushels of surfclam were landed compared to 2.3 million bushels (Table 2) landed in 2012. The average ex-vessel price of surfclams reported by processors increased about 2% from \$12.44 in 2012 to \$12.63 per bushel in 2013. The total ex-vessel value of the 2013 federal harvest was approximately \$31.0 million or 7% increase from the prior year.

As indicated above, surfclams on Georges Bank were not fished from 1990 to 2008 due to the risk of PSP. There was light fishing on Georges Bank in years 2009-2011 under an exempted fishing permit and LPUE in that area was substantially higher (5-7 times higher) than in other traditional fishing grounds. NOAA Fisheries reopened a portion of Georges Bank to the harvest of surfclam and ocean quahog beginning January 1, 2013 (77 FR 75057, December 19, 2012) under its authority in 50 CFR 648.76. Subsequently, NOAA Fisheries reopened an additional portion of Georges Bank beginning August 16, 2013 (78 FR 49967). Harvesting vessels have to adhere to the recently adopted testing protocol developed by the National Shellfish Sanitation Program. It is anticipated that allowing clam vessels to fish in the reopened area would significantly reduce the fishing pressure in the southern portion of the surfclam range while providing an economic benefit to the industry because of the higher LPUE on Georges Bank.

6.4.1.2 Ocean Quahogs

The average ex-vessel price of non-Maine ocean quahogs reported by processors in 2013 was \$6.87 per bushel, representing no change from the 2012 price (\$6.88 per bushel). In 2013, 3.2 million bushels of non-Maine ocean quahog were landed compared to 3.5 million bushels (Table

2) landed in 2012. The total ex-vessel value of the 2013 federal harvest outside of Maine was approximately \$22.9 million, a 10% increase from the prior year.

The Maine ocean quahog fleet is allocated an overall quota of 100,000 bushels. In 2013, the Maine ocean quahog fleet harvested a total of 60,302 Maine bushels, a 15% decrease from the 70,655 bushels harvested in 2012. In past years, the Maine ocean quahog fleet has leased small amounts of ocean quahog ITQ from the non-Maine fishery, averaging 5,101 bushels for the 2009-2013 period (ranging from low values of zero bushels in 2013 and 137 bushels in 2012 to a high of 13,224 bushels in 2011). Therefore, small amounts of ITQ quota may be landed by the Maine ocean quahog fleet. Average prices for Maine ocean quahogs have declined substantially over the past 10 years. In 2003, there were very few trips that sold for less than \$37.00 per Maine bushel, and the mean price was \$40.66. Aggressive price cutting by one company has driven prices down such that many trips in 2008 and 2009 sold for \$28.00, with the mean price for all trips equaling \$33.31 per bushel in 2008. In 2013, the mean price was \$24.60 per Maine bushel. The value of the 2013 harvest reported by the purchasing dealers totaled \$1.48 million, a decrease of 15% from the prior year. Advisory Panel members have indicated that the Maine ocean quahog landings have decreased due to the lack of large clams for the half shell market.

6.4.2 Description of the Areas Fished

A detailed description of the areas fished by the fisheries for surfclam and ocean quahogs was presented in Amendment 13 to the FMP (MAFMC 2003).

The commercial fishery for surfclam in Federal waters is prosecuted with large vessels and hydraulic dredges. The distribution of the fishery as catch and landings per unit of effort (LPUE) is shown in Figures 1 and 2. The commercial fishery for ocean quahogs in Federal waters is prosecuted with large vessels and hydraulic dredges, and is very different from the small Maine fishery prosecuted with small vessels (35-45 ft).

6.4.3 Port and Community Description

Communities from Maine to Virginia are involved in the harvesting and processing of surfclam and ocean quahog. Ports in New Jersey and Massachusetts handle the most volume and value, particularly Atlantic City and Point Pleasant, New Jersey, and New Bedford, Massachusetts. There are also landings in Ocean City, Maryland, and the Jonesport and Beals Island areas of Maine. The Maine fishery is entirely for ocean quahogs, which are sold as shellstock for the half-shell market. The other fisheries are industrialized ones for surfclam and ocean quahog, which are hand shucked or steam-shucked and processed into fried, canned, and frozen products.

Additional information on "Community Profiles for the Northeast US Fisheries" can be found at: <http://www.nefsc.noaa.gov/read/socialsci/communityProfiles.html>.

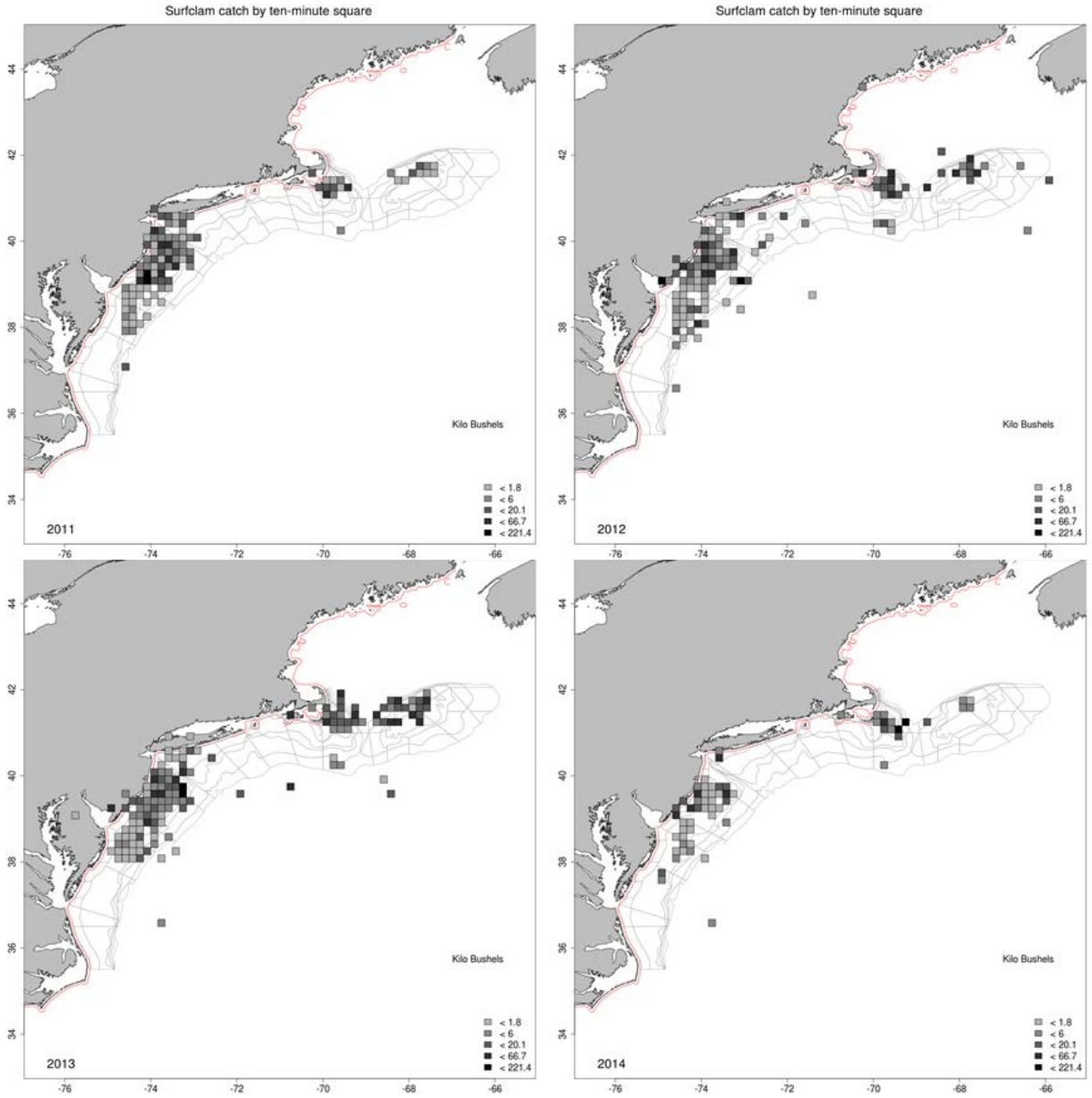


Figure 1. Surfclam landings by ten-minute square (TMSQ), the finest scale location for landings reported in logbooks, for 2011-2013, and preliminary 2014 (1 kilo bushel = 1000 bu y-1). Source: Dan Hennen Pers. Comm. (NEFSC 2014).

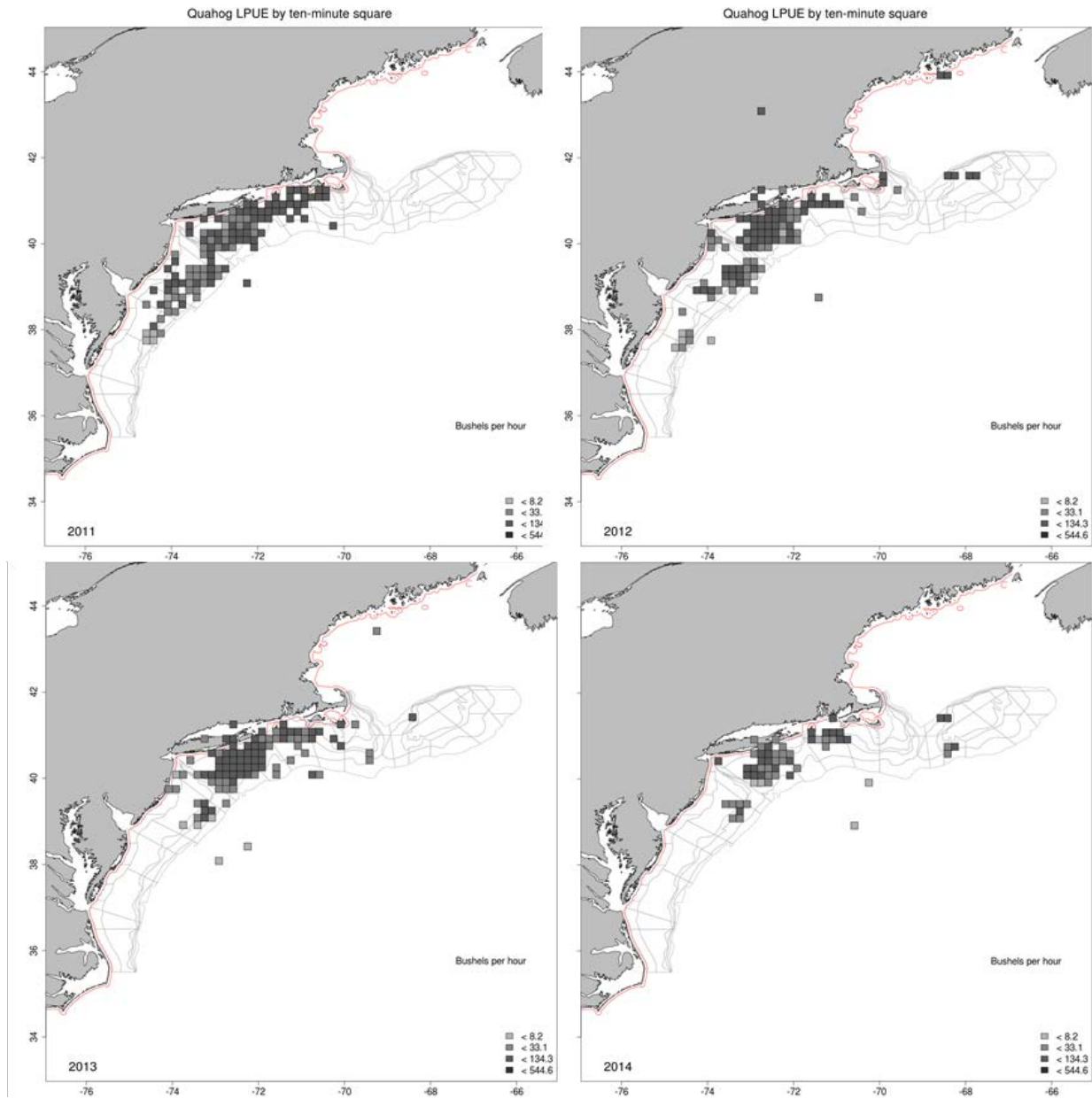


Figure 2. Ocean quahog landings per unit effort (bushels per hour) by ten-minute square (TMSQ), the finest scale location for landings reported in logbooks, for 2011-2013, and preliminary 2014. Source: Dan Hennen Pers. Comm. (NEFSC 2014).

6.4.4 Vessels and Dealers

Vessels

The total number of vessels participating in the surfclam fishery has been relatively stable from 2004 through 2013, ranging from 29 vessels in 2006 to 33 vessels in 2013 harvesting surfclam

only¹³ (Table 4). The total number of vessels participating in the ocean quahog fisheries outside the state of Maine has experienced a downward trend as the fisheries moved beyond a market crisis in 2005 where major users of clam meats reduced their purchases from industry and stopped advertising products like clam chowder in the media. Industry members reported that imported meat from Canada and Vietnam contributed to an oversupply of clam meats in the marketplace. The costs to vessels harvesting clams have increased significantly, with the greatest component being the cost of diesel fuel. Trips harvesting quahogs have also increased in length as catch rates have declined steadily. The 30 or so vessels that reported landings during 2004 and 2005 was reduced and coast-wide harvests consolidated on to approximately 20 vessels in the subsequent years. The Maine ocean quahog fleet numbers started to decline with fuel prices soaring in mid-2008 and totaled 11 in 2013. (Table 4).

Table 4. Surfclam and ocean quahog active vessels composition, 2004-2013.

Vessel-type	Harvested Species	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Non-Maine Vessels	Both surfclam & quahog	14	12	9	9	8	8	12	12	13	7
	Only surfclam	21	24	20	24	24	28	22	24	29	33
	Only quahog	15	12	9	8	10	7	9	7	6	9
	Total	50	48	38	41	42	43	43	43	48	49
Maine Vessels	Only quahog	34	32	25	24	22	19	15	13	12	11

Dealers

In 2013, there were 7 companies reporting purchases of surfclam and/or ocean quahog from the industrial fisheries outside of Maine. They were distributed by state as indicated in Table 5. Employment data for these specific firms are not available. In 2013, these companies bought approximately \$22.9 million worth of ocean quahog and \$31.0 million worth of surfclam.

Table 5. Companies that reported buying ocean quahog and surfclam by state (from NOAA Fisheries dealer/processor report database) in 2013.

Number of Companies	MA	NJ	DE
	3	3	1

¹³ The reported numbers of vessels participating in the surfclam and/or ocean quahog fisheries in this document are derived from clam logbook data unless otherwise noted.

7.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

This EA analyzes the impacts of the alternatives described fully under section 5.0. In summary, this includes:

Cost Recovery Alternatives (section 5.1)

- Alternative 1 (No action - No Cost Recovery)
- Alternative 2 (ITQ tag holder pays via a federally permitted dealer)
- Alternative 3 (ITQ shareholder and tag holder pays; two-tiered approach)
- Alternative 4 (Shareholder pays directly; equal fee per share)
- Alternative 5 (Preferred: Shareholder pays; golden tilefish model)

Administrative Mechanism to Update Biological Reference Points Alternatives (section 5.2)

- Alternative 1 (No Action)
- Alternative 2 (Preferred: Redefine the Status Determination Criteria)

Optimum Yield Range Alternatives (section 5.3)

- Alternative 1 (No Action)
- Alternative 2 (Preferred: Remove OY Range from FMP; Advisors Recommend)
- Alternative 3 (Link Upper Bound OY Range to ABC Recommendations)

The aspects of the environment (Valued Ecosystem Components - VECs) that could be affected by the proposed actions are detailed in section 6.0, and the analysis in this section focuses on impacts relative to those (managed resources and non-target species, habitat (including EFH), ESA listed and MMPA protected resources, and human communities). Other aspects of the human environment, such as historic and cultural resources, invasive species, and others, have no potential to be impacted by any of the alternatives and are not analyzed further in this document. For each suite of alternatives, a no action (*status quo*) alternative is presented as alternative 1.

7.1 Biological Impacts

7.1.1 Cost Recovery Alternatives

Under alternative 1, a cost recovery program would not be implemented. Alternative 1 (No action) is expected to result in neutral biological impacts on the Atlantic surfclam or ocean quahog stock, and any non-target species or bycatch. This alternative would leave the FMP out of compliance with the provisions of the MSA, as the Act requires that a process be established to recover the costs directly related to management, data collection and analysis, and enforcement of ITQ programs.

Alternatives 2-5 are purely administrative as they deal with the recovery of the costs for the management, data collection and analysis, and enforcement of the IFQ program. As a result, impacts resulting from this alternative are not likely to affect the physical or biological environment. Therefore, the alternatives are not expected to have any impact on fishing methods and practices or the interaction of this fishery with non-targeted species. Therefore, biological impacts from all the alternatives (1-5) are expected to be similar.

7.1.2 Administrative Mechanism to Update BRPs Alternatives

Alternative 1 (No action) is expected to result in neutral to slight negative biological impacts on the Atlantic surfclam and ocean quahog stocks, and any non-target species or bycatch. This no action alternative would not allow for updates to biological reference points in the FMP when warranted (would require an Amendment), and as such, may have slight negative impacts relative to alternative 2. Relative to the no action alternative 1, alternative 2 is expected to result in neutral to slight positive biological impacts on Atlantic surfclam or ocean quahog stock, or any non-target species or bycatch. Alternative 2 merely revises the current definitions of the stock status determination criteria for each species and defines the process by which updates to status determination criteria are integrated into the management process. This action is purely administrative; however, there may be indirect slight positive effects from managing these stocks with more accurate or reliable information on stock status that is incorporated into the FMP in a timely way. This action does not directly influence fishing effort, or fishery removals but instead facilitates use of the most current scientific information available to define the status determination criteria for these stocks, so these stocks can be managed to prevent overfishing and manage such that the Atlantic surfclam and ocean quahog stocks are not overfished. By allowing peer-reviewed scientific updates on status determination criteria to be incorporated into the FMP and management process more efficiently (not requiring a timely amendment process), managers can more effectively respond to changes in stock status and make timely adjustments to the management programs for the Atlantic surfclam and ocean quahog stocks. This improvement in efficiency will aid in managing these stocks for sustainability.

7.1.3 Optimum Yield Range Alternatives

All of these alternatives including the No action alternative are expected to result in neutral biological impacts on the Atlantic surfclam and ocean quahog stocks, and any non-target species or bycatch, because these measures are administrative in nature. Regardless of whether the surfclam and ocean quahog OY ranges are or are not retained in the FMP, the proposed action does not alter the specification process by which the Council specifies catch and landings limits that prevent overfishing and are consistent with the advice of its SSC. The Council examines the best available science, consults with its advisors, and undergoes a deliberative process to decide on what upcoming fishing year measures should be recommended. The impacts of those actions are evaluated through a specification EA. Specifically, the Council's catch limits cannot exceed the ABC recommendations of the SSC. The fishing industry has indicated that having an OY range allows for longer term planning for their businesses, and for their relationships with their banking institutions.

The current regulations indicate that commercial quotas for surfclam and ocean quahog must be set within the OY ranges given in the FMP. However, the regulations also state that quotas for surfclam and ocean quahog may be specified below these ranges if the ABC recommendation of the SSC limits the ACL to a value less than the minimum of the OY range indicated. This flexibility only applies to the lower bound of the OY ranges, and there is no such flexibility in the upper bound of the OY ranges. If the Council wanted to set a commercial quota higher than the upper bound of the OY range for surfclam or ocean quahog, the OY range would need to be modified through a framework. Frameworks typically take a minimum of 1-year to be completed; with a minimum of two framework meetings and approximately 4-6 months for

rulemaking and implementation. The Council does have the ability to set quotas outside the OY ranges through the use of a framework on the upper limit of the ranges, or based on SSC recommendations at the lower limit; therefore, having an OY range in the FMP under the no action is not an immovable boundary. Therefore, both alternative 2 and alternative 3 are intended to bring consistency in how the Council sets commercial quotas relative to the ABC, and consistent treatment of quotas either above or below the currently specified OY range. Lastly, in the NS1 guidelines final rule (January 16, 2009; 74 FR 3178), under the response to comments, NOAA Fisheries states, "NMFS believes that fisheries managers cannot consistently meet the requirements of the MSA to prevent overfishing and achieve, on a continuing basis, OY unless they address scientific and management uncertainty. The reductions in fishing levels that may be necessary in order to prevent overfishing should be only the amount necessary to achieve the results mandated by the MSA." This suggests that setting commercial quotas less than the OY range in the plan is not consistent with this guidance or the way NMFS interprets OY and sets up a conceptual disconnect between OY and the system of catch and landings limits which address scientific and management uncertainty.

By eliminating the OY range under alternative 2 and having advisors recommend an OY as part of the specifications process, managers can more effectively respond to changes in surfclam and ocean quahog stock status and make timely adjustments to the management programs for the Atlantic surfclam and ocean quahog stocks regardless of the direction of the ABC recommendations of the SSC.

Under alternative 3, the upper bound of the OY range for both surfclam and ocean quahog would be equal to the ABC recommended by the SSC. This would reduce the potential for disconnect with the existing OY ranges. However, there is the potential that the ABC could be set lower than the lower bound of the OY ranges for surfclam and ocean quahog. This could create some administrative confusion because the Council's Omnibus ACL and AM Amendment indicated that OY should be somewhere between ABC and the annual catch target (ACT) once scientific and management uncertainty have been addressed.

7.2 Habitat Impacts

7.2.1 Cost Recovery Alternatives

Alternative 1 (No action) is expected to result in neutral impacts on habitat. In addition, the actions considered under alternatives 2-5 are purely administrative. These alternatives are not expected to have any impact on fishing methods and practices and are not expected to result in changes in fishing effort or redistribution in fishing effort. Therefore, none of the alternatives under consideration are expected to have adverse impacts to the marine habitats or EFH.

7.2.2 Administrative Mechanism to Update BRPs Alternatives

Alternative 1 (No action) is expected to result in neutral impacts on habitat. Relative to the no action alternative 1, alternative 2 is expected to result in neutral impacts on habitat. This action merely revises the current definitions of the stock status determination criteria for each species and defines the process by which updates to status determination criteria are integrated into the

management process. The proposed action is purely administrative; therefore, it is not expected to result in changes to the manner in which the Atlantic surfclam and ocean quahog fisheries are prosecuted.

7.2.3 Optimum Yield Range Alternatives

Alternative 1 (No action) is expected to result in neutral impacts on habitat. Relative to the no action alternative 1, alternatives 2 and 3 are expected to result in neutral impacts on habitat. Alternative 2 merely eliminates the OY range in the FMP and has advisors recommend OY as part of the specification process. Under alternative 3 the upper bound of the OY range for both surfclam and ocean quahog would be equal to the ABC recommended by the SSC. Regardless of whether the surfclam and ocean quahog OY ranges are or are not retained in the FMP, the proposed action does not alter the specification process by which the Council specifies catch and landings limits that prevent overfishing and are consistent with the advice of its SSC. The Council examines the best available science, consults with its advisors, and undergoes a deliberative process to decide on what upcoming fishing year measures should be recommended. The impacts of those actions are evaluated through a specification EA. The proposed action under alternatives 2 and 3 is purely administrative (the more detailed discussion in section 7.1.3 applies here); therefore, it is not expected to result in changes to the manner in which the Atlantic surfclam and ocean quahog fisheries are prosecuted.

7.3 Impacts on ESA-Listed Species and MMPA Protected Species

7.3.1 Cost Recovery Alternatives

Alternative 1 (No action) is expected to result in neutral impacts on ESA-listed and MMPA protected resources. In addition, the actions considered under alternatives 2-5 are purely administrative. These alternatives are not expected to have any impact on fishing methods and practices and are not expected to result in changes in fishing effort or redistribution in fishing effort. Therefore, none of the alternatives under consideration are expected to have adverse impacts on ESA-listed and MMPA protected resources.

7.3.2 Administrative Mechanism to Update BRPs Alternatives

Alternative 1 (No action) is expected to result in neutral impacts on ESA-listed and MMPA protected resources. Relative to the no action alternative 1, alternative 2 is expected to result in neutral impacts on these resources. This action merely revises the current definitions of the stock status determination criteria for each species and defines the process by which updates to status determination criteria are integrated into the management process. The proposed action is purely administrative; therefore, it is not expected to result in changes to the manner in which Atlantic surfclam and ocean quahog fisheries are prosecuted.

7.3.3 Optimum Yield Range Alternatives

Alternative 1 (No action) is expected to result in neutral impacts on ESA-listed and MMPA protected resources. Relative to the no action alternative 1, alternatives 2 and 3 are expected to result in neutral impacts on these protected resources. Alternative 2 merely eliminates the OY

range in the FMP and has advisors recommend OY as part of the specification process. Under alternative 3 the upper bound of the OY range for both surfclam and ocean quahog would be equal to the ABC recommended by the SSC. Regardless of whether the surfclam and ocean quahog OY ranges are or are not retained in the FMP, the proposed action does not alter the specification process by which the Council specifies catch and landings limits that prevent overfishing and are consistent with the advice of its SSC. The Council examines the best available science, consults with its advisors, and undergoes a deliberative process to decide on what upcoming fishing year measures should be recommended. The impacts of those actions are evaluated through a specification EA. The proposed action under alternatives 2 and 3 is purely administrative (the more detailed discussion in section 7.1.3 applies here); therefore, it is not expected to result in changes to the manner in which the Atlantic surfclam and ocean quahog fisheries are prosecuted.

7.4 Socioeconomic Impacts

7.4.1 Cost Recovery Alternatives

Under the No action alternative 1, a fee and costs recovery program would not be implemented; therefore, socioeconomic impacts would be neutral when compared to the current conditions.

Alternatives 2-5 could collect up to a maximum of 3 percent of the ex-vessel value of surfclam and ocean quahog harvested under the ITQ program. However, initial conversations with GARFO staff indicated that a conservative initial estimate of management, enforcement, and data collection cost could be approximately \$100,000 (the equivalent of a 0.2 percent fee, based on the average ex-vessel value of the fishery in 2011-2013), thus for the purpose of discussing a range of potential impacts, a 0.2 percent fee is compared to the potential maximum 3 percent fee, and the no action fee of 0 percent. Surfclam and ocean quahog landings have been relatively stable during the last 3 years (2011-2013; Table 2). Unless market conditions change substantially in the near future, it would be expected that commercial fishermen would likely have landings for these shellfish resources close to the average landings for the 2011-2013 landings. Based on average landings and ex-vessel prices for the 2011-2013 period of 2.4 million bushels and \$12.32 per bushel for surfclam, and 3.3 million bushels and \$6.90 per bushel for ocean quahogs, and the maximum fee level of 3 percent; the total fee expected to be collected in the first year of the program would be \$1.57 million under the maximum fee level allowed to be collected under MSA (Table 6). It is important to mention that while alternatives 2-5 could impose a cost recovery rate of up to 3 percent, this rate is likely to be substantially lower given the amounts current collected in other Northeast ITQ fisheries, and may change in subsequent years. For example, Table 6 shows the potential fees under a 3 and a 0.2 percent fee.

For both alternatives 2 and 5, the cost recovery fee is based on landings (tags that are fished), however, under alternative 2 the tag holder pays via a federally permitted dealer and under alternative 5 the shareholder pays directly to NOAA Fisheries. Under both of these alternatives, assuming average surfclam and ocean quahog landings and ex-vessel prices for the 2011-2013 period, the potential cost to fishermen associated with a cost recovery fee of 3 percent of ex-vessel value could on average range from approximately \$22,176 for vessels that landed surfclam to \$42,694 for vessels that landed ocean quahogs. The potential cost to fishermen

associated with the cost recovery fee of up to 0.2 percent could range on average from approximately \$1,478 for vessels that landed surfclam to \$2,846 for vessels that landed ocean quahogs in 2013 (Table 7). For vessels that land both species, the average cost recovery fee will likely vary from these estimates and would depend on the proportion of each species landed. The potential overall cost to business firms associated with a cost recovery fee under alternatives 2 and 5 would depend on the percentage recovery fee implemented for a specific fishing year and the amount of landings by the specific firm which may use one or multiple vessels.

Note that individual allocations are often registered in the name of a corporation, rather than an individual. It is common for owners of multiple fishing vessels to list each one as being owned by a separate corporation for the purpose of limiting liability. Similarly, a single individual might own multiple allocations that are listed in NOAA Fisheries records as being registered to distinct corporations for the same reason. Banks that have loaned money to allocation holders will often require that the allocation be placed in the bank's name as collateral for the loan. A single individual may have several such loans. As such, it is important to understand that the number of allocations is not equal to the number of allocation owners. Therefore, number of owners will be smaller due to the ownership of multiple allocations. Allocation ownership is a matter of public record. A complete list of the current allocation owners of record may be found and in Appendix C and at: <http://www.nero.noaa.gov/sustainable/species/clam/>. These are the entities that will be most directly impacted. However, NOAA Fisheries does not currently have information to characterize entities at the owner level. Instead, information on fishing activities is used to characterize and enumerate entities. Additional analysis associated with the cost recovery program at the firm level¹⁴ are presented as part of the initial regulatory flexibility analysis (IRFA).

Under alternative 4, using the same 2011-2013 assumptions about landings and ex-vessel prices for these species presented above, the potential per tag cost associated with the cost recovery fee of 3 percent could range on average from approximately \$4.10 per ocean quahog tag to \$8.36 per surfclam tag to (Table 7). The potential cost to associate with the cost recovery fee of up to 0.2 percent could range on average from \$0.27 per ocean quahog tag to \$0.56 per surfclam tag. Table 8 shows the potential shareholder cost recovery fees (maximum, minimum, average) under a 3 and 0.2 percent fee given the surfclam and ocean quahog tags allocated in 2014.

It is expected that under the two-tier approach in alternative 3, the portion of the cost recovery fee assessed proportionate to shareholder would be substantially smaller than the portion of the cost recovery fee to be paid when the tags are used to land. This is due to the fact that the administrative cost of managing allocation and issuing tags is lower than the overall costs directly related to management, data collection and analysis, and enforcement of this ITQ program. The potential overall cost to business firms associated with a cost recovery fee under alternatives 3 and 4 would depend on the percentage fee implemented for a specific fishing year and the overall number of shares or tags received and/or used to land by the specific firm.

¹⁴ In some cases, some of the vessels with surfclam and ocean quahog permits may be considered to be part of the same firm because they may have the same owners listed. However, the same issues with identifying ownership (described above) will still apply to this allocation holder dataset.

The overall net cost per ITQ shareholder, vessel, or tag holder associated with surfclam and ocean quahog cost recovery would depend on the cost recovery fee implemented which cannot exceed 3 percent of the ex-vessel value, the amount and value of surfclam and ocean quahog landed, and any other potential costs associated with paying the fee (e.g., time to compile information and complete paperwork associated with payment of fees). In addition, there would likely be a small cost in time to dealers associated with tracking payment of fees associated with any ITQ landings.

Alternatives 2-5 are expected to have minor negative socioeconomic impacts compared to alternative 1 as fishermen revenues could potentially decrease by up to 3 percent of ex-vessel value due to fees collected by NOAA Fisheries. The extent of negative impacts is slightly different for each of the alternatives. Alternative 4 is expected to incur the smallest negative impacts to individuals that land surfclam and ocean quahog because the fees to be recovered are spread across all shareholders. Alternative 4 would have the greatest negative impacts to shareholders that do not land shellfish. This is because the fee would be shared by all shareholders regardless of whether the ITQ was fished or not. In terms of impacts, this would be followed by alternative 3 (two-tiered approach) because all tag holders would have a percentage of the fee assessed proportionate to the amount of allocation (shares) held by the shareholder. The initial portion of the fee would be paid by all shareholders regardless of whether their ITQ was fished or not. Therefore, a portion of the fee is spread across all shareholders similar to alternative 4. Alternatives 2 and 5 would have the greatest negative impacts to individuals that land surfclam and ocean quahog because the fee is only borne by the ITQ quota (tags) that have been fished; therefore, the universe of quota shares to which the fee is applied is smaller. Alternatives 2 and 5 would not impact shareholders that did not land with their surfclam and ocean quahog ITQ.

Alternatives 2-5 would impose a cost recovery fee of up to 3 percent of ex-vessel value of surfclam and ocean quahog harvested under the ITQ program. However, the actual rate is likely to be substantially lower given the amounts currently collected in other Northeast ITQ fisheries, and may change in subsequent years. Each year, NOAA Fisheries will determine the percentage of the ex-vessel value of surfclam and ocean quahog that would be collected. It is possible that neutral societal impacts will occur as management costs associated with fishing this public resource are simply shifted from the general public/taxpayer to the fishing industry as required under MSA.

Table 6. Potential fees associated with a 0.2 and a 3 percent fee under the surfclam and ocean quahog ITQ system assuming 2011-2013 landings and ex-vessel values.

a. Potential fees associated with a 0.2 percent fee recovery program.

	Average Landings 2011-2013	Average ex-vessel value based on an ex-vessel price of \$12.32/bu for surfclam and \$6.90/bu for ocean quahogs (2011-2013)	Cost associated with a 0.2 percent fee recovery program
Surfclam	2.4 million bu	\$29.568 million	\$59,136
Ocean Quahog	3.3 million bu	\$22.770 million	\$45,540
Total	5.7 million bu	\$52.338 million	\$104,676

Source: NOAA Fisheries unpublished dealer and clam logbook data.

b. Potential fees associated with a 3 percent fee recovery program.

	Average Landings 2011-2013	Average ex-vessel value based on an ex-vessel price of \$12.32/bu for surfclam and \$6.90/bu for ocean quahogs	Cost associated with a 3 percent fee recovery program
Surfclam	2.4 million bu	\$29.568 million	\$887,040
Ocean Quahog	3.3 million bu	\$22.770 million	\$683,100
Total	5.7 million bu	\$52.338 million	\$1,570,140

Source: NOAA Fisheries unpublished dealer and clam logbook data.

Table 7. Potential fees at the vessel and tag level associated with a 0.2 and a 3 percent fee under the surfclam and ocean quahog ITQ system assuming 2013 landings and ex-vessel values.

a. Potential fees associated with a 0.2 percent fee recovery program.

	Cost associated with a 0.2 percent fee recovery program	Number of vessels that landed surfclam and ocean quahogs in 2013	Per vessel average cost associated with a 0.2 percent fee recovery program
Surfclam	\$59,136	40	\$1,478
Ocean quahog	\$45,540	16	\$2,846
	Cost associated with a 0.2 percent fee recovery program	Number of cages tags issued in 2014*	Per tag average cost associated with a 0.2 percent fee recovery program
Surfclam	\$59,136	106,132	\$0.56
Ocean quahog	\$45,540	166,415	\$0.27

b. Potential fees associated with a 3 percent fee recovery program.

	Cost associated with a 3 percent fee recovery program	Number of vessels that landed surfclam and ocean quahogs in 2013	Per vessel average cost associated with a 3 percent fee recovery program
Surfclam	\$887,040	40	\$22,176
Ocean quahog	\$683,100	16	\$42,694
	Cost associated with a 3 percent fee recovery program	Number of cages tags issued in 2014*	Per average tag cost associated with a 3 percent fee recovery program
Surfclam	\$887,040	106,132	\$8.36
Ocean quahog	\$683,100	166,415	\$4.10

*See Appendix C for the surfclam and ocean quahog allocation holder report for 2014.

Table 8. Potential fees associated with a 0.2 and a 3 percent fee under the surfclam and ocean quahog ITQ system assuming the number of cage tags issued in 2014.

a. Potential fees associated with a 0.2 percent fee recovery program.

		Number of cages tags issued in 2014	Per tag average cost associated with a 0.2 percent fee recovery program	Cost associated with a 0.2 percent fee recovery program
Surfclam	Maximum	14,177	\$0.56	\$7,939
	Minimum	52	\$0.56	\$29
	Average	1,516	\$0.56	\$849
Ocean Quahog	Maximum	36,314	\$0.27	\$9,805
	Minimum	2	\$0.27	\$0.54
	Average	4,059	\$0.27	\$1,096

a. Potential fees associated with a 3 percent fee recovery program.

		Number of cages tags issued in 2014	Per tag average cost associated with a 3 percent fee recovery program	Cost associated with a 3 percent fee recovery program
Surfclam	Maximum	14,177	\$8.36	\$118,520
	Minimum	52	\$8.36	\$435
	Average	1,516	\$8.36	\$12,674
Ocean Quahog	Maximum	36,314	\$4.10	\$148,887
	Minimum	2	\$4.10	\$8
	Average	4,059	\$4.10	\$16,642

7.4.2 Administrative Mechanism to Update BRPs Alternatives

Alternative 1 (No action) is expected to result in neutral impacts on the social and economic environment. Relative to the no action alternative 1, alternative 2 is expected to result in neutral impacts on the social and economic environment. This action merely revises the current definitions of the stock status determination criteria for each species and defines the process by which updates to status determination criteria are integrated into the FMP and management process. The proposed action is purely administrative; therefore, it does not alter the catch and landings limits for these species or the allocation of the resources among user groups, with no direct impact on fishing effort or effort distribution in the Atlantic surfclam and ocean quahog fisheries.

7.4.3 Optimum Yield Range Alternatives

Alternative 1 (No action) is expected to result in neutral impacts on the social and economic environment. Relative to the no action alternative 1, alternatives 2 and 3 are expected to result in neutral impacts on the social and economic environment. Alternative 2 merely eliminates the OY range in the FMP and has advisors recommend OY as part of the specification process. The fishing industry has indicated that having an OY range allows for longer term planning for their businesses, and for their relationships with their banking institutions. Under alternative 2, OY would still be recommended to the Council by its advisors, and the Council would continue to have the ability to consider whether to set commercial quotas consistent with OY as it does under the no action alternative. Under the no action, the Council does have the ability to set quotas outside the OY ranges through the use of a framework on the upper limit of the ranges, or based on SSC recommendations at the lower limit; therefore, having an OY range in the FMP under the no action is not an immovable boundary. Under alternative 3 the upper bound of the OY range for both surfclam and ocean quahog would be equal to the ABC recommended by the SSC. Regardless of whether the surfclam and ocean quahog OY ranges are or are not retained in the FMP, the proposed action does not alter the specification process by which the Council specifies catch and landings limits that prevent overfishing and are consistent with the advice of its SSC. The Council examines the best available science, consults with its advisors, and undergoes a deliberative process to decide on what upcoming fishing year measures should be recommended. The impacts of those actions are evaluated through a specification EA. The proposed action under alternatives 2 and 3 is administrative (the more detailed discussion in section 7.1.3 applies here); therefore, it is not expected to result in changes to the manner in which the Atlantic surfclam and ocean quahog fisheries are prosecuted or impact those individuals and communities that are dependent on the fisheries. The measures proposed under alternatives 2 and 3 merely provide for consistency and administrative efficiency.

7.5 Cumulative Effects Analysis

A cumulative effects analysis (CEA) is required by the Council on Environmental Quality (CEQ) (40 CFR part 1508.7). The purpose of CEA is to consider the combined effects of many actions on the human environment over time that would be missed if each action were evaluated separately. CEQ guidelines recognize that it is not practical to analyze the cumulative effects of an action from every conceivable perspective, but rather, the intent is to focus on those effects that are truly meaningful. A formal cumulative impact assessment is not necessarily required as

part of an EA under NEPA as long as the significance of cumulative impacts have been considered (U.S. EPA 1999). The following remarks address the significance of the expected cumulative impacts as they relate to the federally managed Atlantic surfclam and ocean quahog fisheries.

7.5.1 Consideration of the VECs

In section 6.0 (Description of the Affected Environment), the VECs that exist within surfclam and ocean quahog fishery environment are identified. Therefore, the significance of the cumulative effects will be discussed in relation to the VECs listed below.

1. Managed resources (surfclam and ocean quahog)
2. Non-target species
3. Habitat including EFH for the managed resource and non-target species
4. ESA-listed and MMPA protected species
5. Human communities

7.5.2 Geographic Boundaries

The analysis of impacts focuses on actions related to the harvest of Atlantic surfclam and ocean quahog. The core geographic scope for each of the VECs is focused on the Western Atlantic Ocean (section 6.0). The core geographic scopes for the managed resources are the range of the management units (section 6.1). For non-target species, those ranges may be expanded and would depend on the biological range of each individual non-target species in the Western Atlantic Ocean. For habitat, the core geographic scope is focused on EFH within the EEZ but includes all habitat utilized by surfclam and ocean quahog and other non-target species in the Western Atlantic Ocean. The core geographic scope for endangered and protected resources can be considered the overall range of these VECs in the Western Atlantic Ocean. For human communities, the core geographic boundaries are defined as those U.S. fishing communities directly involved in the harvest or processing of the managed resources, which were found to occur in coastal states from Maine through Virginia (section 6.4).

7.5.3 Temporal Boundaries

The temporal scope of past and present actions for VECs is primarily focused on actions that have occurred after FMP implementation (1977 for surfclam and ocean quahog). For endangered and other protected resources, the scope of past and present actions is on a species-by-species basis (section 6.3) and is largely focused on the 1980s and 1990s through the present, when NOAA Fisheries began generating stock assessments for marine mammals and sea turtles that inhabit waters of the U.S. EEZ. The temporal scope of future actions for all five VECs extends about three years (2017) into the future. This period was chosen because the dynamic nature of resource management and lack of information on projects that may occur in the future make it very difficult to predict impacts beyond this timeframe with any certainty.

7.5.4 Actions Other Than Those Proposed in this Amendment

The impacts of each of the alternatives considered in this amendment document are given in section 7.1 through 7.4. Table 9 presents meaningful past (P), present (Pr), or reasonably foreseeable future (RFF) actions to be considered other than those actions being considered in this amendment document. These impacts are described in chronological order and qualitatively, as the actual impacts of these actions are too complex to be quantified in a meaningful way. When any of these abbreviations occur together (i.e., P, Pr, RFF), it indicates that some past actions are still relevant to the present and/or future actions.

Past and Present Actions

The historical management practices of the Council have resulted in positive impacts on the health of the surfclam and ocean quahog stocks (section 6.1). Numerous actions have been taken to manage these fisheries through amendment and framework adjustment actions. The specifications process provides the opportunity for the Council and NOAA Fisheries to regularly assess the status of the fishery and to make necessary adjustments to ensure that there is a reasonable expectation of meeting the objectives of the FMP. The statutory basis for federal fisheries management is the MSA. To the degree with which this regulatory regime and National Standards are complied, the cumulative impacts of past, present, and reasonably foreseeable future federal fishery management actions on the VECs should generally be associated with positive long-term outcomes, which should bring about long-term sustainability of a given resource, and as such, should, in the long-term, promote positive effects on human communities, especially those that are economically dependent upon the surfclam and ocean quahog stocks.

Non-fishing activities that introduce chemical pollutants, sewage, changes in water temperature, salinity, dissolved oxygen, and suspended sediment into the marine environment pose a risk to all of the identified VECs. Human-induced non-fishing activities tend to be localized in nearshore areas and marine project areas where they occur. Examples of these activities include, but are not limited to agriculture, port maintenance, beach nourishment, coastal development, marine transportation, marine mining, dredging and the disposal of dredged material. Wherever these activities co-occur, they are likely to work additively or synergistically to decrease habitat quality and, as such, may indirectly constrain the sustainability of the managed resources, non-target species, and protected resources. Decreased habitat suitability would tend to reduce the tolerance of these VECs to the impacts of fishing effort. Mitigation of this outcome through regulations that would reduce fishing effort could then negatively impact human communities. The overall impact to the affected species and their habitats on a population level is unknown, but likely neutral to low negative, since a large portion of these species have a limited or minor exposure to these local non-fishing perturbations.

In addition to guidelines mandated by the MSA, NOAA Fisheries reviews these types of effects through the review processes required by Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act for certain activities that are regulated by federal, state, and local authorities. The jurisdiction of these activities is in "waters of the U.S." and includes both riverine and marine habitats.

Reasonably Foreseeable Future Actions

The implementation of a data collection protocol process to collect information about quota share ownership for the surfclam and ocean quahog ITQ fisheries by NOAA Fisheries, as requested by the Council, is likely to occur within the next year (in 2015). An Amendment to address excessive share accumulation for these ITQ fisheries will be developed and could potentially begin in 2016. In addition, the New England Fishery Management Council is implementing a comprehensive habitat amendment (by the end of 2015) which includes the closure of areas to certain types of fishing gears including clam dredges. As a result, these Reasonably Foreseeable Future Actions over the next three years will address outstanding issue for the management of surfclam and ocean quahog.

For many of the proposed non-fishing activities to be permitted under other federal agencies (such as beach nourishment, offshore wind facilities, etc.), those agencies would conduct examinations of potential impacts on the VECs. The MSA (50 CFR 600.930) imposes an obligation on other federal agencies to consult with the Secretary of Commerce on actions that may adversely affect EFH. The eight Fishery Management Councils are engaged in this review process by making comments and recommendations on any federal or state action that may affect habitat, including EFH, for their managed species and by commenting on actions likely to substantially affect habitat, including EFH.

In addition, under the Fish and Wildlife Coordination Act (Section 662), “whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified for any purpose whatever, including navigation and drainage, by any department or agency of the U.S., or by any public or private agency under federal permit or license, such department or agency first shall consult with the U.S. Fish and Wildlife Service (USFWS), Department of the Interior, and with the head of the agency exercising administration over the wildlife resources of the particular state wherein the” activity is taking place. This act provides another avenue for review of actions by other federal and state agencies that may impact resources that NOAA Fisheries manages in the reasonably foreseeable future.

In addition, NOAA Fisheries and the USFWS share responsibility for implementing the ESA. ESA requires NOAA Fisheries to designate "critical habitat" for any species it lists under the ESA (i.e., areas that contain physical or biological features essential to conservation, which may require special management considerations or protection) and to develop and implement recovery plans for threatened and endangered species. The ESA provides another avenue for NOAA Fisheries to review actions by other entities that may impact endangered and protected resources whose management units are under NOAA Fisheries jurisdiction.

7.5.5 Magnitude and Significance of Cumulative Effects

In determining the magnitude and significance of the cumulative effects, the additive and synergistic effects of the proposed action, as well as past, present, and future actions, must be taken into account. The following section discusses the effects of these actions on each of the VECs.

Table 9. Impacts of Past (P), Present (Pr), and Reasonably Foreseeable Future (RFF) Actions on the five VECs (not including those actions considered in this Amendment document).

Action	Description	Impacts on Managed Resource	Impacts on Non-target Species	Impacts on Habitat and EFH	Impacts on Protected Species	Impacts on Human Communities
^{P, Pr} Original FMP and Amendments and Frameworks to the FMP	Established management measures	Indirect Positive Regulatory tool available to rebuild and manage stocks	Indirect Positive Reduced fishing effort	Indirect Positive Reduced fishing effort	Indirect Positive Reduced fishing effort	Indirect Positive Benefited domestic businesses
^{P, Pr} Surfclam and Ocean Quahog Specifications	Establish quotas, other fishery regulations	Indirect Positive Regulatory tool to specify catch limits, and other regulation; allows response to annual stock updates	Indirect Positive Reduced effort levels and gear requirements	Indirect Positive Reduced effort levels and gear requirements	Indirect Positive Reduced effort levels and gear requirements	Indirect Positive Benefited domestic businesses
^{P, Pr, RFF} Developed, Applied, and Redo of Standardized Bycatch Reporting Methodology	Established acceptable level of precision and accuracy for monitoring of bycatch in fisheries	Neutral May improve data quality for monitoring total removals of managed resource	Neutral May improve data quality for monitoring removals of non-target species	Neutral Will not affect distribution of effort	Neutral May increase observer coverage and will not affect distribution of effort	Potentially Indirect Negative May impose an inconvenience on vessel operations
^{P, Pr, RFF} PSP Closed Areas	Reopening of PSP Closed Areas to Clam fishing	Neutral to Indirect Negative Fishery impacts in previously unfished areas	Indirect Positive Reduced overall fishing effort	Indirect Positive Reduced overall fishing effort	Neutral Limited interactions with gear occur	Indirect Positive Benefitted domestic businesses
^{P, Pr, RFF} Agricultural runoff	Nutrients applied to agricultural land are introduced into aquatic systems	Indirect Negative Reduced habitat quality	Indirect Negative Reduced habitat quality	Direct Negative Reduced habitat quality	Indirect Negative Reduced habitat quality	Indirect Negative Reduced habitat quality negatively affects resource
^{P, Pr, RFF} Port maintenance	Dredging of coastal, port and harbor areas for port maintenance	Uncertain – Likely Indirect Negative Dependent on mitigation effects	Uncertain – Likely Indirect Negative Dependent on mitigation effects	Uncertain – Likely Direct Negative Dependent on mitigation effects	Uncertain – Likely Indirect Negative Dependent on mitigation effects	Uncertain – Likely Mixed Dependent on mitigation effects

Table 9 (Continued). Impacts of Past (P), Present (Pr), and Reasonably Foreseeable Future (RFF) Actions on the five VECs (not including those actions considered in this Amendment document).

Action	Description	Impacts on Managed Resource	Impacts on Non-target Species	Impacts on Habitat and EFH	Impacts on Protected Species	Impacts on Human Communities
P, Pr, RFF Offshore disposal of dredged materials	Disposal of dredged materials	Indirect Negative Reduced habitat quality	Indirect Negative Reduced habitat quality	Direct Negative Reduced habitat quality	Indirect Negative Reduced habitat quality	Indirect Negative Reduced habitat quality negatively affects resource viability
P, Pr, RFF Beach nourishment	Offshore mining of sand for beaches	Indirect Negative Localized decreases in habitat quality	Indirect Negative Localized decreases in habitat quality	Direct Negative Reduced habitat quality	Indirect Negative Localized decreases in habitat quality	Mixed Positive for mining companies, possibly negative for fishing industry
	Placement of sand to nourish beach shorelines	Indirect Negative Localized decreases in habitat quality	Indirect Negative Localized decreases in habitat quality	Direct Negative Reduced habitat quality	Indirect Negative Localized decreases in habitat quality	Positive Beachgoers like sand; positive for tourism
P, Pr, RFF Marine transportation	Expansion of port facilities, vessel operations and recreational marinas	Indirect Negative Localized decreases in habitat quality	Indirect Negative Localized decreases in habitat quality	Direct Negative Reduced habitat quality	Indirect Negative Localized decreases in habitat quality	Mixed Positive for some interests, potential displacement for others
P, Pr, RFF Renewable and Non-renewable Offshore and Nearshore Energy Development	Transportation of oil, gas, and electric through pipelines and cables; Construction of oil platforms, wind facilities, liquefied natural gas facilities; Additional port development infrastructure	Uncertain – Likely Indirect Negative Dependent on mitigation effects	Uncertain – Likely Indirect Negative Dependent on mitigation effects	Uncertain – Likely Direct Negative Reduced habitat quality; offshore platforms may benefit structure oriented fish species habitat	Potentially Direct Negative Dependent on mitigation effects	Uncertain – Likely Mixed Dependent on mitigation effects

Table 9 (Continued). Impacts of Past (P), Present (Pr), and Reasonably Foreseeable Future (RFF) Actions on the five VECs (not including those actions considered in this Amendment document).

Action	Description	Impacts on Managed Resource	Impacts on Non-target Species	Impacts on Habitat and EFH	Impacts on Protected Species	Impacts on Human Communities
Pr, RFF Implementation of Data Collection Protocol (within 3 years)	Collect data needed to track ITQ share ownership within the fishery	Neutral Administrative - no direct or indirect impacts	Neutral Administrative - no direct or indirect impacts	Neutral Administrative - no direct or indirect impacts	Neutral Administrative - no direct or indirect impacts	Uncertain – Likely Mixed Collects data needed to evaluate excessive shares cap, but additional paperwork may be required
RFF Convening of Take Reduction Teams (periodically)	Recommend measures to reduce mortality and injury to marine mammals	Indirect Positive Will improve data quality for monitoring total removals	Indirect Positive Reducing availability of gear could reduce bycatch	Indirect Positive Reducing availability of gear could reduce gear impacts	Indirect Positive Reducing availability of gear could reduce encounters	Indirect Negative Reducing availability of gear could reduce revenues
RFF Amendment to address Excessive Shares (begin work within 3 years)	Establish a cap for excessive share accumulation	Neutral Administrative - no direct or indirect impacts	Neutral Administrative - no direct or indirect impacts	Neutral Administrative - no direct or indirect impacts	Neutral Administrative - no direct or indirect impacts	Indirect Positive Protects against excessive share accumulation in fishery

7.5.5.1 Managed Resources

Those past, present, and reasonably foreseeable future actions, whose effects may impact the managed resources and the direction of those potential impacts, are summarized in Table 9. The indirectly negative actions described in Table 9 are mainly localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on the managed resources is expected to be limited due to a lack of exposure to the population at large. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude, although the impact on productivity of the managed resources is unquantifiable. As described above (section 7.5.4), NOAA Fisheries has several means under which it can review non-fishing actions of other federal or state agencies that may impact NOAA Fisheries managed resources prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on resources under NOAA Fisheries jurisdiction.

Past fishery management actions taken through the FMP and specification process have had a positive cumulative effect on the managed resources. It is anticipated that the future management actions, described in Table 10, will result in additional indirect positive effects on the managed resources through actions which reduce and monitor bycatch, protect habitat, and protect ecosystem services on which surfclam and ocean quahog productivity depends. The 2012 fishing year was the first year of implementation for an Amendment which requires specification of ACLs and ACTs, and this process has been carried forward into the 2014-2016 measures. This represents a major change to the current management program and is expected to lead to improvements in resource sustainability over the long-term. These impacts could be broad in scope. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to surfclam and ocean quahog have had a positive cumulative effect.

Catch limits, and commercial quotas for each of the managed resources have been specified to ensure these rebuilt stocks are managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA. The impacts from specification of management measures established in previous years on the managed resources are largely dependent on how effective those measures were in meeting their intended objectives (i.e., preventing overfishing, achieving OY) and the extent to which mitigating measures were effective. The proposed action in this document would positively reinforce the past and anticipated positive cumulative effects on the surfclam and ocean quahog stock, by achieving the objectives specified in the FMP and ensuring the requirements of the MSA are met. Therefore, the proposed action would not have any significant effect on the managed resources individually or in conjunction with other anthropogenic activities (see Table 10).

Table 10. Summary of the effects of past, present, and reasonably foreseeable future actions on the managed resource.

Action	Past to the Present	Reasonably Foreseeable Future
Original FMP and subsequent Amendments and Frameworks to the FMP	Indirect Positive	
Surfclam and Ocean Quahog Specifications	Indirect Positive	
Developed, Apply, and Redo Standardized Bycatch Reporting Methodology	Neutral	
PSP Closed Areas		Neutral to Indirect Negative
Agricultural runoff	Indirect Negative	
Port maintenance	Uncertain – Likely Indirect Negative	
Offshore disposal of dredged materials	Indirect Negative	
Beach nourishment – Offshore mining	Indirect Negative	
Beach nourishment – Sand placement	Indirect Negative	
Marine transportation	Indirect Negative	
Renewable and Non-renewable Offshore and Nearshore Energy Development	Uncertain – Likely Indirect Negative	
Data Collection Protocol		Neutral
Convening Take Reduction Teams		Indirect Positive
Amendment to Address Excessive Shares		Neutral
Summary of past, present, and future actions excluding those proposed in this amendment document	Overall, actions have had, or will have, positive impacts on the managed resources * See section 7.5.5.1 for explanation.	

7.5.5.2 Non-Target Species or Bycatch

Those past, present, and reasonably foreseeable future actions, whose effects may impact non-target species and the direction of those potential impacts, are summarized in Table 9. The effects of indirectly negative actions described in Table 9 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on non-target species is expected to be limited due to a lack of exposure to the population at large. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude, although the impact on productivity of non-target resources and the oceanic ecosystem is unquantifiable. As described above (section 7.5.4), NOAA Fisheries has several means under which it can review non-fishing actions of other federal or state agencies that may impact NOAA Fisheries managed resources prior to permitting or implementation of those projects. At this time, NOAA Fisheries can consider impacts to non-target species (federally-managed or otherwise) and comment on potential impacts. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on resources within NOAA Fisheries jurisdiction.

Past fishery management actions taken through the FMP and annual specification process have had a positive cumulative effect on non-target species. Implementation and application of a standardized bycatch reporting methodology (SBRM) would have a particular impact on non-target species by improving the methods which can be used to assess the magnitude and extent of a potential bycatch problem. The redevelopment of the SBRM will result in better assessment of potential bycatch issues and allow more effective and specific management measures to be developed to address a bycatch problem. It is anticipated that future management actions, described in Table 11, will result in additional indirect positive effects on non-target species through actions which reduce and monitor bycatch, protect habitat, and protect ecosystem services on which the productivity of many of these non-target resources depend. The impacts of these future actions could be broad in scope, and it should be noted the managed resource and non-target species are often coupled in that they utilize similar habitat areas and ecosystem resources on which they depend. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful have had a positive cumulative effect on non-target species.

Catch limits and commercial quotas for each of the managed resources have been specified to ensure these rebuilt stocks are managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA. The proposed actions in this document would not change the past and anticipated positive cumulative effects on non-target species and thus, would not have any significant effect on these species individually or in conjunction with other anthropogenic activities (Table 11).

Table 11. Summary of the effects of past, present, and reasonably foreseeable future actions on the non-target species.

Action	Past to the Present	Reasonably Foreseeable Future
Original FMP and subsequent Amendments and Frameworks to the FMP	Indirect Positive	
Surfclam and Ocean Quahog Specifications	Indirect Positive	
Developed, Apply, and Redo Standardized Bycatch Reporting Methodology	Neutral	
PSP Closed Areas		Potentially Indirect Positive
Agricultural runoff	Indirect Negative	
Port maintenance	Uncertain – Likely Indirect Negative	
Offshore disposal of dredged materials	Indirect Negative	
Beach nourishment – Offshore mining	Indirect Negative	
Beach nourishment – Sand placement	Indirect Negative	
Marine transportation	Indirect Negative	
Renewable and Non-renewable Offshore and Nearshore Energy Development	Uncertain – Likely Indirect Negative	
Data Collection Protocol		Neutral
Convening Take Reduction Teams		Indirect Positive
Amendment to Address Excessive Shares		Neutral
Summary of past, present, and future actions excluding those proposed in this amendment document	Overall, actions have had, or will have, positive impacts on the non-target species * See section 7.5.5.2 for explanation.	

7.5.5.3 Habitat (Including EFH)

Those past, present, and reasonably foreseeable future actions, whose effects may impact habitat (including EFH) and the direction of those potential impacts, are summarized in Table 9. The direct and indirect negative actions described in Table 9 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on habitat is expected to be limited due to a lack of exposure to habitat at large. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude, although the impact on habitat and EFH is unquantifiable. As described above (section 7.5.4), NOAA Fisheries has several means under which it can review non-fishing actions of other federal or state agencies that may impact NOAA Fisheries managed resources and the habitat on which they rely prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of direct and indirect negative impacts those actions could have on habitat utilized by resources under NOAA Fisheries jurisdiction.

Past fishery management actions taken through the FMP and annual specification process have had a positive cumulative effect on habitat and EFH. The actions have constrained fishing effort at a large scale and locally, which may reduce habitat impacts. As required under these FMP actions, EFH was designated for the managed resources. It is anticipated that the future management actions, described in Table 12, will result in additional direct or indirect positive effects on habitat through actions which protect EFH for federally-managed species and protect ecosystem services on which these species' productivity depends. These impacts could be broad in scope. All of the VECs are interrelated; therefore, the linkages among habitat quality and EFH, managed resources and non-target species productivity, and associated fishery yields should be considered. For habitat and EFH, there are direct and indirect negative effects from actions which may be localized or broad in scope; however, positive actions that have broad implications have been, and it is anticipated will continue to be, taken to improve the condition of habitat. There are some actions, which are beyond the scope of NOAA Fisheries and Council management such as coastal population growth and climate changes, which may indirectly impact habitat and ecosystem productivity. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to habitat have had a neutral to positive cumulative effect.

Catch limits and commercial quotas for each of the managed resources have been specified to ensure these rebuilt stocks are managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA. Proposed changes in Omnibus EFH Amendment 2 being prepared by the New England Fishery management Council are expected to go into effect in 2016. These actions could include closure of some areas near Nantucket Shoals and Great South Channel to clam dredging, although it is unclear if these measures will or will not go into effect. Closure of areas to dredging would not be expected to negatively impact EFH. The proposed actions in this document would not change the past and anticipated cumulative effects on habitat and thus, would not have any significant effect on habitat individually or in conjunction with other anthropogenic activities (Table 12).

Table 12. Summary of the effects of past, present, and reasonably foreseeable future actions on the habitat.

Action	Past to the Present	Reasonably Foreseeable Future
Original FMP and subsequent Amendments and Frameworks to the FMP	Indirect Positive	
Surfclam and Ocean Quahog Specifications	Indirect Positive	
Developed, Apply, and Redo Standardized Bycatch Reporting Methodology	Neutral	
PSP Closed Areas		Potentially Indirect Positive
Agricultural runoff	Direct Negative	
Port maintenance	Uncertain – Likely Direct Negative	
Offshore disposal of dredged materials	Direct Negative	
Beach nourishment – Offshore mining	Direct Negative	
Beach nourishment – Sand placement	Direct Negative	
Marine transportation	Direct Negative	
Renewable and Non-renewable Offshore and Nearshore Energy Development	Uncertain – Likely Direct Negative	
Data Collection Protocol		Neutral
Convening Take Reduction Teams		Indirect Positive
Amendment to Address Excessive Shares		Neutral
Summary of past, present, and future actions excluding those proposed in this amendment document	Overall, actions have had, or will have, neutral to positive impacts on habitat, including EFH * See section 7.5.5.3 for explanation.	

7.5.5.4 ESA-Listed and MMPA Protected Species

Those past, present, and reasonably foreseeable future actions, whose effects may impact the protected resources and the direction of those potential impacts, are summarized in Table 9. The indirectly negative actions described in Table 9 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on protected resources, relative to the range of many of the protected resources, is expected to be limited due to a lack of exposure to the population at large. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude, although the impact on protected resources either directly or indirectly is unquantifiable. As described above (section 7.5.4), NOAA Fisheries has several means, including ESA, under which it can review non-fishing actions of other federal or state agencies that may impact NOAA Fisheries protected resources prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on protected resources under NOAA Fisheries jurisdiction.

Past fishery management actions taken through the FMP and annual specification process have had a positive cumulative effect on ESA-listed and MMPA protected species through the reduction of fishing effort (potential interactions). It is anticipated that the future management actions, specifically those recommended by the ALWTRT and the development of strategies for sea turtle conservation described in Table 13, will result in additional indirect positive effects on the protected resources. These impacts could be broad in scope. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to protected resources have had a positive cumulative effect.

Catch limits and commercial quotas for each of the managed resources have been specified to ensure these rebuilt stocks are managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA. The proposed actions in this document would not change the past and anticipated cumulative effects on ESA-listed and MMPA protected species and thus, would not have any significant effect on protected resources individually or in conjunction with other anthropogenic activities (Table 13).

Table 13. Summary of the effects of past, present, and reasonably foreseeable future actions on the protected resources.

Action	Past to the Present	Reasonably Foreseeable Future
Original FMP and subsequent Amendments and Frameworks to the FMP	Indirect Positive	
Surfclam and Ocean Quahog Specifications	Indirect Positive	
Developed, Apply, and Redo Standardized Bycatch Reporting Methodology	Neutral	
PSP Closed Areas		Potentially Indirect Positive
Agricultural runoff	Indirect Negative	
Port maintenance	Uncertain – Likely Indirect Negative	
Offshore disposal of dredged materials	Indirect Negative	
Beach nourishment – Offshore mining	Indirect Negative	
Beach nourishment – Sand placement	Indirect Negative	
Marine transportation	Indirect Negative	
Renewable and Non-renewable Offshore and Nearshore Energy Development	Potentially Direct Negative	
Data Collection Protocol		Neutral
Convening Take Reduction Teams		Indirect Positive
Amendment to Address Excessive Shares		Neutral
Summary of past, present, and future actions excluding those proposed in this amendment document	<p>Overall, actions have had, or will have, positive impacts on protected resources * See section 7.5.5.4 for explanation.</p>	

7.5.5.5 Human Communities

Those past, present, and reasonably foreseeable future actions, whose effects may impact human communities and the direction of those potential impacts, are summarized in Table 9. The indirectly negative actions described in Table 9 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on human communities is expected to be limited in scope. It may, however, displace fishermen from project areas. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude. This may result in indirect negative impacts on human communities by reducing resource availability; however, this effect is unquantifiable. As described above (section 7.5.4), NOAA Fisheries has several means under which it can review non-fishing actions of other federal or state agencies prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on human communities.

Past fishery management actions taken through the FMP and annual specification process have had both positive and negative cumulative effects by benefiting domestic fisheries through sustainable fishery management practices, while at the same time potentially reducing the availability of the resource to all participants. Sustainable management practices are, however, expected to yield broad positive impacts to fishermen, their communities, businesses, and the nation as a whole. It is anticipated that the future management actions, described in Table 14, will result in positive effects for human communities due to sustainable management practices, although additional indirect negative effects on the human communities could occur through management actions that may result in area closures and thus, reduce revenues. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to human communities have had an overall positive cumulative effect.

Catch limits and commercial quotas for each of the managed resources have been specified to ensure these rebuilt stocks are managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA.

Despite the potential for negative short-term effects on human communities, the expectation is that there would be a positive long-term effect on human communities due to the long-term sustainability of surfclam and ocean quahog. Overall, the proposed actions in this document would not change the past and anticipated cumulative effects on human communities and thus, would not have any significant effect on human communities individually, or in conjunction with other anthropogenic activities (Table 14).

Table 14. Summary of the effects of past, present, and reasonably foreseeable future actions on human communities.

Action	Past to the Present	Reasonably Foreseeable Future
Original FMP and subsequent Amendments and Frameworks to the FMP	Indirect Positive	
Surfclam and Ocean Quahog Specifications	Indirect Positive	
Developed, Apply, and Redo Standardized Bycatch Reporting Methodology	Potentially Indirect Negative	
PSP Closed Areas		Potentially Indirect Positive
Agricultural runoff	Indirect Negative	
Port maintenance	Uncertain – Likely Mixed	
Offshore disposal of dredged materials	Indirect Negative	
Beach nourishment – Offshore mining	Mixed	
Beach nourishment – Sand placement	Positive	
Marine transportation	Mixed	
Renewable and Non-renewable Offshore and Nearshore Energy Development	Uncertain – Likely Mixed	
Data Collection Protocol		Uncertain – Likely Mixed
Convening Take Reduction Teams (within 3 years)		Indirect Negative
Amendment to Address Excessive Shares		Indirect Positive
Summary of past, present, and future actions excluding those proposed in this amendment document	Overall, actions have had, or will have, positive impacts on human communities * See section 7.5.5.5 for explanation.	

7.5.6 Preferred Action on all the VECS

The Council has identified its preferred action alternatives in section 5.0. The cumulative effects of the range of actions considered in this document can be considered to make a determination if significant cumulative effects are anticipated from the preferred action. The direct and indirect impacts of the proposed action on the VECS are described in sections 7.1 through 7.4. The magnitude and significance of the cumulative effects, which include the additive and synergistic effects of the proposed action, as well as past, present, and future actions, have been taken into account throughout this section 7.5. The action proposed in this amendment document builds off action taken in the original FMP and subsequent amendments and framework documents. When this action is considered in conjunction with all the other pressures placed on fisheries by past, present, and reasonably foreseeable future actions, it is not expected to result in any significant impacts, positive or negative. Based on the information and analyses presented in these past FMP documents and this document, there are no significant cumulative effects associated with the action proposed in this document (Table 15).

Table 15. Magnitude and significance of the cumulative effects; the additive and synergistic effects of the preferred action, as well as past, present, and future actions.

VEC	Status in 2013	Net Impact of P, Pr, and RFF Actions	Impact of the Preferred Action	Significant Cumulative Effects
Managed Resource	Complex and variable (Section 6.1)	Positive (Sections 7.5.4 and 7.5.5.1)	Cost Recovery Alt. 5, Neutral (Section 7.1.1)	None
			BRP Mechanism Alt. 2, Slight positive (Section 7.1.2)	
			OY Range Alt. 2, Neutral (Section 7.1.3)	
Non-target Species	Complex and variable (Section 6.1)	Positive (Sections 7.5.4 and 7.5.5.2)	Cost Recovery Alt. 5 - Neutral (Section 7.1.1)	None
			BRP Mechanism Alt. 2 – Neutral (Section 7.1.2)	
			OY Range Alt. 2, Neutral (Section 7.1.3)	
Habitat	Complex and variable (Section 6.2)	Neutral to positive (Sections 7.5.4 and 7.5.5.3)	Cost Recovery Alt. 5 - Neutral (Section 7.2.1)	None
			BRP Mechanism Alt. 2 – Neutral (Section 7.2.2)	
			OY Range Alt. 2, Neutral (Section 7.2.3)	
Protected Resources	Complex and variable (Section 6.3)	Positive (Sections 7.5.4 and 7.5.5.4)	Cost Recovery Alt. 5 - Neutral (Section 7.3.1)	None
			BRP Mechanism Alt. 2 – Neutral (Section 7.3.2)	
			OY Range Alt. 2, Neutral (Section 7.3.3)	
Human Communities	Complex and variable (Section 6.4)	Positive (Sections 7.5.4 and 7.5.5.5)	Cost Recovery Alt. 5 - Neutral (Section 7.4.1)	None
			BRP Mechanism Alt. 2 – Neutral (Section 7.4.2)	
			OY Range Alt. 2, Neutral (Section 7.4.3)	

8.0 APPLICABLE LAWS

8.1 Magnuson-Stevens Fishery Conservation and Management Act (MSA)

8.1.1 National Standards

Section 301 of the MSA requires that FMPs contain conservation and management measures that are consistent with the ten National Standards. The most recent FMP amendments address how the management actions implemented comply with the National Standards. First and foremost, the Council continues to meet the obligations of National Standard 1 by adopting and implementing conservation and management measures that will continue to prevent overfishing, while achieving, on a continuing basis, the optimum yield for Atlantic surfclam and ocean quahog and the U.S. fishing industry. To achieve OY, both scientific and management uncertainty need to be addressed when establishing catch limits that are less than the OFL; therefore, the Council develops recommendations that do not exceed the ABC recommendations of the SSC which have been developed to explicitly address scientific uncertainty. In addition, the Council has considered relevant sources of management uncertainty and other social, economic, and ecological factors, which resulted in recommendations for annual catch targets for both managed resources. The Council uses the best scientific information available (National Standard 2) and manages both species throughout their range (National Standard 3). These management measures do not discriminate among residents of different states (National Standard 4), they do not have economic allocation as their sole purpose (National Standard 5), the measures account for variations in these fisheries (National Standard 6), they avoid unnecessary duplication (National Standard 7), they take into account the fishing communities (National Standard 8) and they promote safety at sea (National Standard 10). Finally, actions taken are consistent with National Standard 9, which addresses bycatch in fisheries. The Council has implemented many regulations that have indirectly reduced impacts on EFH. By continuing to meet the National Standards requirements of the MSA through future FMP amendments, framework actions, and the annual specification setting process, the Council will insure that cumulative impacts of these actions will remain positive overall for the ports and communities that depend on these fisheries, the Nation as a whole, and certainly for the resources.

8.2 NEPA FINDING OF NO SIGNIFICANT IMPACT (FONSI)

National Oceanic and Atmospheric Administration Administrative Order 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the CEQ regulations at 40 CFR §1508.27 state that the significance of an action should be analyzed both in terms of “context” and “intensity.” Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

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

None of the proposed measures presented in this document is expected to jeopardize the sustainability of any target species affected by the action. The preferred alternatives to establish a cost recovery program for surfclam and ocean quahog, implement a mechanism to update BRPs in the FMP, and have advisors recommend OY as part of the catch limit specification process (as opposed to a fixed range in the FMP), are all consistent with the FMP objectives and the MSA National Standards. The proposed measures are generally administrative and are not expected to result in overfishing on surfclam or ocean quahog.

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

None of the proposed measures presented in this document is expected to jeopardize the sustainability of any non-target species, including ESA-listed and MMPA protected species. The proposed measures are not expected to alter fishing methods or activities.

3) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in FMPs?

The proposed action as described in section 7.0 of the EA is not expected to cause substantial damage to the ocean, coastal habitats, and/or EFH as defined under the MSA and identified in the FMP. In general, bottom-tending mobile gear such as clam dredges, has the potential to adversely affect EFH for the species detailed in section 6.2 of the EA. However, the measures proposed in this action are administrative and are not expected to alter fishing methods or activities or is expected to increase fishing effort or the spatial and/or temporal distribution of current fishing effort. Neither these, nor any of the other measures included in the proposed action will have any adverse habitat impact; impacts from all the alternatives are expected to be neutral on habitat.

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

None of the measures alters the manner in which the industry conducts fishing activities for the target species. Therefore, no changes in fishing behavior that would affect safety are anticipated. The overall effect of the proposed actions on these fisheries, including the communities in which they operate, will not impact adversely public health or safety.

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

None of the proposed measures is expected to alter fishing methods or activities. Because of the administrative nature of this action, none of the proposed measures is expected to alter fishing methods or activities or is expected to increase fishing effort or the spatial and/or temporal distribution of current fishing effort (see section 7.0). Therefore, this action is not expected to

affect ESA-listed or MMPA protected species or critical habitat in any manner not considered in previous consultations on the fisheries.

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

The proposed action is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area. This action will establish a cost recovery program for surfclam and ocean quahog, implement a mechanism to update BRPs in the FMP, and have advisors recommend OY as part of the catch limit specification process. These measures are administrative in nature and are not expected to alter fishing methods or activities. None of the proposed measures is expected to increase fishing effort.

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

The proposed action is not expected to have a substantial impact on the natural or physical environment. Commercial capture of surfclam and ocean quahog occurs through the use of clam dredges. This gear has the potential to impact bottom habitat. However, none of the measures are expected to alter fishing methods or are expected to increase fishing effort. Therefore, there are no social or economic impacts interrelated with significant natural or physical environmental effects.

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

The impacts of the proposed measures on the human environment are described in section 7.0 of the EA. This action will establish a cost recovery program for surfclam and ocean quahog, implement a mechanism to update BRPs in the FMP, and have advisors recommend OY as part of the catch limit specification process (as opposed to a fixed range in the FMP). The proposed cost recovery program is modeled after cost recovery programs already implemented around the country for many years. In addition, the mechanism to update BRPs in the FMP and the OY range specification is consistent with the catch limits systems already in place for the Council's managed-fisheries. Because these measures are not novel and are all modeled after successfully implemented actions, the scientific basis for the measures contained in this action are not expected to be highly controversial.

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

This action will establish a cost recovery program for surfclam and ocean quahog, implement a mechanism to update BRPs in the FMP, and have advisors recommend OY as part of the catch limit specification process (as opposed to a fixed range in the FMP). These measures are administrative in nature and are not expected to alter fishing activities that already occur in these areas, nor is it expected to alter fishing effort. Although it is possible that historic or cultural resources such as shipwrecks could be present in areas where clam dredge gear is used, vessels try

to avoid fishing too close to wrecks due to the possible loss or damage to fishing gear. Therefore, it is not likely that the proposed action would result in substantial impacts to unique areas.

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

The impacts of the proposed measures on the human environment are described in section 7.0 of the EA. This action will establish a cost recovery program for surfclam and ocean quahog, implement a mechanism to update BRPs in the FMP, and have advisors recommend OY as part of the catch limit specification process (as opposed to a fixed range in the FMP). None of the proposed measures is expected to alter fishing methods or activities or is expected to increase fishing effort or the spatial and/or temporal distribution of current fishing effort. The measures contained in this action are not expected to have highly uncertain effects or to involve unique or unknown risks on the human environment.

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

As discussed in section 7.5, the proposed action is not expected to have individually insignificant, but cumulatively significant impacts. The synergistic interaction of improvements in the management of the fishery is expected to generate insignificant positive impacts overall. The proposed actions, together with past, present, and reasonably foreseeable future actions, are not expected to result in significant cumulative impacts on the biological, physical, and human components of the environment.

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

The impacts of the proposed measures on the human environment are described in section 7.0 of the EA. This action will establish a cost recovery program for surfclam and ocean quahog, implement a mechanism to update BRPs in the FMP, and have advisors recommend OY as part of the catch limit specification process (as opposed to a fixed range in the FMP). Although there are shipwrecks present in the area where surfclam and ocean quahog fishing occurs, including some registered on the National Register of Historic Places, vessels typically avoid fishing too close to wrecks due to the possible loss or entanglement of fishing gear. Therefore, it is not likely that the proposed action would adversely affect the historic resources listed above.

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

This action will establish a cost recovery program for surfclam and ocean quahog, implement a mechanism to update BRPs in the FMP, and have advisors recommend OY as part of the catch limit specification process (as opposed to a fixed range in the FMP). This action is administrative in nature and there is no evidence or indication that these fisheries have ever resulted in the introduction or spread of nonindigenous species. None of the proposed measures is expected to

alter fishing methods or activities. Therefore, it is highly unlikely that the proposed action would be expected to result in the introduction or spread of a non-indigenous species.

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

This action will establish a cost recovery program for surfclam and ocean quahog, implement a mechanism to update BRPs in the FMP, and have advisors recommend OY as part of the catch limit specification process (as opposed to a fixed range in the FMP). All these administrative measures are consistent with those in place in other federal marine fisheries; they are not novel or unique. None of these measures results in significant effects, nor do they represent a decision in principle about a future consideration. The impact of any future changes will be analyzed as to their significance in the process of developing and implementing them.

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

This action will establish a cost recovery program for surfclam and ocean quahog, implement a mechanism to update BRPs in the FMP, and have advisors recommend OY as part of the catch limit specification process (as opposed to a fixed range in the FMP). None of the proposed measures is expected to alter fishing methods or activities such that they threaten a violation of federal, State, or local law or requirements imposed for the protection of the environment. In fact, the measures have been found to be consistent with other applicable laws (see sections 8.3-8.11 below).

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

The impacts of the proposed alternatives on the biological, physical, and human environment are described in section 7.0. The cumulative effects of the proposed action on target and non-target species, including ESA-listed and MMPA protected species, are detailed in section 7.0 of the EA. The proposed measures are administrative in nature and are not expected to increase fishing effort or the spatial and/or temporal distribution of current fishing effort. Therefore, the proposed action would not have any substantial cumulative effect on target or non-target species.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting EA, it is hereby determined that the proposed actions in this document will not significantly impact the quality of the human environment as described above and in the EA. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.

Regional Administrator for GARFO, NMFS, NOAA

Date

8.3 Endangered Species Act

Sections 6.3 and 7.0 should be referenced for an assessment of the impacts of the proposed action on ESA-listed and MMPA protected resources. None of the actions proposed in this document are expected to alter fishing methods or activities or is expected to increase fishing effort or the spatial and/or temporal distribution of current fishing effort. Therefore, this action is not expected to affect endangered or threatened species or critical habitat in any manner not considered in previous consultations on these fisheries.

8.4 Marine Mammal Protection Act

Sections 6.3 and 7.0 should be referenced for an assessment of the impacts of the proposed action on marine mammals protected under the MMPA. None of the actions proposed in this document are expected to alter fishing methods or activities or is expected to increase fishing effort or the spatial and/or temporal distribution of current fishing effort. Therefore, this action is not expected to affect marine mammals or critical habitat in any manner not considered in previous consultations on the fisheries.

8.5 Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) of 1972, as amended, provides measures for ensuring stability of productive fishery habitat while striving to balance development pressures with social, economic, cultural, and other impacts on the coastal zone. It is recognized that responsible management of both coastal zones and fish stocks must involve mutually supportive goals. The Council has developed this amendment document and will submit it to NOAA Fisheries; NOAA Fisheries must determine whether this action is consistent to the maximum extent practicable with the CZM programs for each state (Maine through Virginia).

8.6 Administrative Procedure Act

Sections 551-553 of the Federal Administrative Procedure Act establish procedural requirements applicable to informal rulemaking by federal agencies. The purpose is to ensure public access to the federal rulemaking process and to give the public notice and opportunity to comment before the agency promulgates new regulations.

The Administrative Procedure Act requires solicitation and review of public comments on actions taken in the development of an FMP and subsequent amendments and framework adjustments. Development of this amendment document provided many opportunities for public review, input, and access to the rulemaking process. This action and the proposed measures were developed through a multi-stage process that was open to review by affected members of the public. The public had the opportunity to review and comment on management measures during the Council meeting in August 2013, June 2014, October 2014, and February 2015. Fishery Management Action Team Meetings (in-person and via webinar) were also open to the public. Public hearings were held in January 2015. These 4 hearings provided addition opportunity for comment from the public during the public comment period of December 15, 2014 – January 16, 2015, prior to the Council's February 11, 2015, decision to submit the document to NOAA Fisheries. In addition,

the public will have further opportunity to comment on this amendment document when NOAA Fisheries publishes a request for comments notice in the Federal Register (FR).

8.7 Section 515 (Data Quality Act)

Utility of Information Product

This action proposes measures for collecting fees and recovering costs associated with the management of the Atlantic surfclam and ocean quahog ITQ fisheries, measures that facilitate incorporation of revised stock status determination criteria (i.e., biological reference points) for surfclam and ocean quahog into the FMP, and measures that would modify or eliminate the OY ranges for surfclam and ocean quahog currently in the FMP. This document includes: A description of the alternatives considered, the preferred action and rationale for selection, and any changes to the implementing regulations of the FMP (if applicable). As such, this document enables the implementing agency (NOAA Fisheries) to make a decision on implementation and this document serves as a supporting document for the proposed rule.

The action contained within this amendment document was developed to be consistent with the FMP, MSA, and other applicable laws, through a multi-stage process that was open to review by affected members of the public. The public had the opportunity to review and comment on management measures during a number of public meetings (see section 8.6). In addition, the public will have further opportunity to comment on this amendment document once NOAA Fisheries publishes a request for comments notice in the *Federal Register*.

Integrity of Information Product

The information product meets the standards for integrity under the following types of documents: Other/Discussion (e.g., Confidentiality of Statistics of the MSA; NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics; 50 CFR 229.11, Confidentiality of information collected under the MMPA).

Objectivity of Information Product

The category of information product that applies here is “Natural Resource Plans.” This section (section 8.0) describes how this document was developed to be consistent with any applicable laws, including MSA with any of the applicable National Standards. The analyses used to develop the alternatives (i.e., policy choices) are based upon the best scientific information available and the most up to date information is used to develop the EA which evaluates the impacts of those alternatives (see section 7.0 of this document for additional details). The specialists who worked with these core data sets and population assessment models are familiar with the most recent analytical techniques and are familiar with the available data and information relevant to the surfclam and ocean quahog fisheries.

The review process for this amendment document involves MAFMC, NEFSC, GARFO, and NOAA Fisheries headquarters. The NEFSC technical review is conducted by senior level scientists with specialties in fisheries ecology, population dynamics and biology, as well as

economics and non-economic social sciences. The MAFMC review process involves public meetings at which affected stakeholders have the opportunity to comment on proposed management measures. Review by GARFO is conducted by those with expertise in fisheries management and policy, habitat conservation, protected resources, and compliance with the applicable laws. Final approval of the amendment document and clearance of the rule is conducted by staff at NOAA Fisheries Headquarters, the Department of Commerce, and the U.S. Office of Management and Budget.

8.8 Paperwork Reduction Act

The Paperwork Reduction Act (PRA) concerns the collection of information. The intent of the PRA is to minimize the federal paperwork burden for individuals, small businesses, state and local governments, and other persons as well as to maximize the usefulness of information collected by the Federal government. This action will contain a collection-of-information requirement for purposes of the PRA. Under the proposed cost recovery program, ITQ shareholders, or dealers may be required to provide tax identification numbers or a social security number. In addition, the payment of bills under cost recovery (and any rebates, refunds) associated with the payment system may require that additional information be provided.

The collection of information requirements associated with the measures proposed in this amendment will be addressed through a separate analysis conducted by NOAA Fisheries. The PRA package prepared in support of this action, including the required forms and supporting statements, will be submitted to NOAA Fisheries headquarters by the NOAA Fisheries GARFO under separate cover. The permitting and reporting requirements in the commercial fishery are expected to impact all shareholders that receive ITQ allocations.

8.9 Impacts of the Plan Relative to Federalism/EO 13132

This document does not contain policies with federalism implications sufficient to warrant preparation of a federalism assessment under Executive Order (EO) 13132.

8.10 Environmental Justice/EO 12898

This EO provides that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” EO 12898 directs each Federal agency to analyze the environmental effects, including human health, economic, and social effects of Federal actions on minority populations, low-income populations, and Indian tribes, when such analysis is required by NEPA. Agencies are further directed to “identify potential effects and mitigation measures in consultation with affected communities, and improve the accessibility of meetings, crucial documents, and notices.”

The proposed actions are not expected to affect participation in the surfclam and ocean quahog fisheries. Since the proposed action represents no changes relative to the current levels of participation in these fisheries, no negative economic or social effects in the context of EO 12898

are anticipated as a result. Therefore, the proposed action is not expected to cause disproportionately high and adverse human health, environmental or economic effects on minority populations, low-income populations, or Indian tribes.

8.11 Regulatory Impact Review / Initial Regulatory Flexibility Analysis

NMFS requires the preparation of a Regulatory Impact Review (RIR) for all regulatory actions that either implement or significantly amend an FMP. The RIR presented in section 8.11.1 provides a comprehensive review of the changes in net economic benefits to society associated with proposed regulatory actions. This analysis also provides a review of the problems and policy objectives prompting the regulatory proposals and evaluates the alternatives presented as a solution. This analysis ensures that the regulatory agency systematically and comprehensively considers all available alternatives so public welfare can be enhanced in the most efficient and cost-effective way. The RIR addresses multiple items in the regulatory philosophy and principles of EO 12866.

The Regulatory Flexibility Act (RFA) requires the Federal rulemaker to examine the impacts of proposed and existing rules on small businesses, small organizations, and small governmental jurisdictions. In reviewing the potential impacts of proposed regulations, the agency must either certify that the rule “will not, if promulgated, have a significant economic impact on a substantial number of small entities.” A determination of substantial depends on the context of the proposed action, the problem to be addressed, and the structure of the regulated industry. Standards for determining significance are discussed below. Also included under section 8.11.2 is an Initial Regulatory Flexibility Analysis (IRFA) which evaluates the economic impacts of the alternatives on small business entities.

As indicated in section 5.0, the proposed actions in this document would implement measures for collecting fees and recovering costs associated with the management of the Atlantic surfclam and ocean quahog ITQ fisheries, measures that facilitate incorporation of revised stock status determination criteria (i.e., biological reference points) for surfclam and ocean quahog into the FMP, and measures that would modify or eliminate the OY ranges for surfclam and ocean quahog currently in the FMP.

8.11.1 Evaluation of EO 12866 Significance

8.11.1.1 Description of the Management Objectives

A complete description of the purpose and need and objectives of this proposed rule is found under section 4.0. This action is taken under the authority of the MSA and regulations at 50 CFR part 648.

8.11.1.2 Description of the Fishery

A description of the Atlantic surfclam and ocean quahog fisheries is presented in section 6.0. A description of ports and communities that are dependent on surfclams and ocean quahogs is found in section 6.5 of Amendment 1 to the FMP (MAFMC 2009). Recent landing patterns among ports and permit data are examined in section 6.4.

8.11.1.3 A Statement of the Problem

A statement of the problem for resolution is presented under section 4.0.

8.11.1.4 A Description of Each Alternative

A full description of the alternatives analyzed in this section is presented in section 5.0. In addition, a brief description of the main differences between each alternative is presented below. A detailed comparison of different management alternatives under consideration in this amendment is presented in Table 16.

Cost Recovery - The Council is required under the MSA to implement a cost recovery program for the surfclam and ocean quahog ITQ fisheries. Preferred alternative 5 would bring the FMP into compliance with the requirements of the MSA, and is the same cost recovery program implemented in the golden tilefish fishery.

Administrative Mechanism to Update Biological Reference Points - Preferred alternative 2 allows for an automatic update of stock status determination criteria (i.e., BRPs) in the FMP if certain criteria the Council has specified are met. It intended to streamline the process when new scientific information becomes available, and ensure the FMP is kept up to date with the stock status determination criteria currently used to manage these fisheries.

Optimum Yield Range - Preferred alternative 2 was selected to improve consistency and provide for a more efficient process when setting catch and landings limits through specifications. This alternative removes the fixed OY ranges from the FMP, and has the advisors recommend OY as part of the specifications process to set catch and landings limits.

8.11.1.5 Analysis of Alternatives

For each alternative, potential impacts on several areas of interest are discussed such that the economic effects of the various alternatives are comprehensively evaluated. The types of effects that should be considered include the following changes in landings, prices, consumer and producer benefits, harvesting costs, enforcement costs, and distributional effects. Due to the lack of an empirical model for the surfclam and ocean quahog fisheries and knowledge of elasticities of supply and demand, a qualitative approach to the economic assessment was adopted. Nevertheless, quantitative measures are provided whenever possible. A more detailed description of the economic concepts involved can be found in "Guidelines for Economic Review of National Marine Fisheries Service Regulatory Actions" (NMFS 2007), as only a brief summary of key concepts will be presented here.

Benefit-cost analysis is conducted to evaluate the net social benefit from changes in consumer and producer surpluses that are expected to occur upon implementation of a regulatory action. Total Consumer Surplus (CS) is the difference between the amounts consumers are willing to pay for products or services and the amounts they actually pay. Graphically, it is the area below the demand curve and above the market clearing price where supply and demand intersect. Thus CS represents net benefit to consumers.

Table 16. Summary comparison of the differences in surfclam and ocean quahog alternatives under consideration in this amendment.

Issue	Alternatives	Main Differences in Alternatives
Cost Recovery	Alternative 1 (No action/ <i>Status Quo</i>)	No cost recovery program.
	Alternative 2 (ITQ tag holder pays via a federally permitted dealer)	<i>Who pays?</i> Tag holder pays fee at the point of landing. <i>Who collects fee?</i> Dealer collects fee at point of landing and submits payment to NOAA Fisheries.
	Alternative 3 (ITQ shareholder and tag holder pays; two-tiered approach)	<i>Who pays?</i> All shareholders (permanent ITQ allocation holder) have a portion of fee assessed proportionate to the amount of allocation held by the shareholder, regardless of whether ITQ were fished or not. Remaining part of fee is collected from tag holders at point of landing. <i>Who collects fee?</i> Shareholder pays portion to NOAA Fisheries. Dealer collects other portion of fee from tag holder at point of landing and submits payment to NOAA Fisheries.
	Alternative 4 (Shareholder pays directly; equal fee per share)	<i>Who pays?</i> All shareholders (permanent ITQ allocation holder) pay NOAA Fisheries an equal fee per share, regardless of whether the shares were fished or not. <i>Who collects fee?</i> Shareholder pays NOAA Fisheries directly.
	Alternative 5 - Preferred (Shareholder pays; golden tilefish model)	<i>Who pays?</i> Shareholder pays NOAA Fisheries fee based on landed value for shares held. <i>Who collects fee?</i> Shareholder pays NOAA Fisheries directly.
Administrative Mechanism to Update Biological Reference Points	Alternative 1 (No action/ <i>Status Quo</i>)	Requires that reference points be updated in the FMP through an Amendment process.
	Alternative 2 - Preferred (Redefine the Status Determination Criteria)	Would not require an Amendment process, but status determination criteria must meet Council’s standards for consistency with National Standards 1 and 2 definitions and peer review.
Optimum Yield Range	Alternative 1 (No action/ <i>Status Quo</i>)	Council must do Framework to modify OY Range (stays in FMP); Quotas may be set lower than OY bounds if acceptable biological catch (ABC) is lower, but cannot be set higher without doing a Framework; Inconsistent treatment of upper and lower bounds of OY range; ABC can be lower than plan OY, which is not consistent with NOAA Fisheries interpretation that scientific and management uncertainty must be addressed to achieve OY.
	Alternative 2 - Preferred (Remove OY Range from FMP; Advisors Recommend OY)	No Framework required; OY range removed from FMP; Removes inconsistencies with OY and ABC; OY value or range would be recommended by advisors as part of specifications process.
	Alternative 3 (Link Upper OY Range to ABC Recommendations)	Council must do Framework to modify OY range (stays in FMP); Upper bound of OY = ABC; At lower bound, Council can set quotas lower if ABC is less than the OY range; ABC can be lower than plan OY, which is not consistent with NOAA Fisheries interpretation that scientific and management uncertainty must be addressed to achieve OY.

Net benefit to producers is producer surplus (PS). Total PS is the difference between the amounts producers actually received for providing goods and services and the economic cost producers bear to do so. Graphically, it is the area above the supply curve and below the market clearing price where supply and demand intersect. Economic costs are measured by the opportunity cost of all resources including the raw materials, and physical and human capital used in the process of supplying these goods and services to consumers.

One of the more visible societal costs of fisheries regulation is that of enforcement. From a budgetary perspective, the cost of enforcement is equivalent to the total public expenditure devoted to enforcement. However, the economic cost of enforcement is measured by the opportunity cost of devoting resources to enforcement vis à vis some other public or private use, and/or by the opportunity cost of diverting enforcement resources from one fishery to another.

Methodology

For purposes of this analysis, all alternatives will be evaluated against a baseline. For purposes of impact evaluation, it is assumed that the baseline condition for the no action/*status quo* alternatives is the current condition. The baseline condition for all other alternatives is the no action/*status quo* alternative.

8.11.1.5.1 Cost Recovery Alternatives

As previously indicated, NOAA Fisheries is required under the MSA to collect fees to recover the costs directly related to the management, enforcement, and data collection and analysis of LAPP programs. Under section 304(d)(2)(A) of the MSA, the Secretary is authorized to collect a fee to recover these costs. The fee shall not exceed 3-percent of the ex-vessel value of the fish harvested.

Under alternative 1 (No Action/*Status quo*) a cost recovery program would not be implemented. This alternative would be contrary to the Congressional mandate to collect fees for LAPP programs as specified in the MSA. Alternatives 2-5, including preferred Alternative 5 (Shareholder pays; tilefish model), would implement a cost recovery program for the surfclam and ocean quahog fisheries. The main difference between these alternatives is the manner in which payments are collected and made.

Under alternative 2, the tag holder pays the fee at the point of landing to the dealer. The dealer collects the fee at point of landing and then submits payment to NOAA Fisheries. Alternative 3 would require that all shareholders have a portion of the fee assessed proportionate to the amount of allocation held by the shareholder, regardless of whether ITQ were fished or not. The shareholder pays that portion of the fee to NOAA Fisheries. The remaining part of the fee is collected by the dealers from tag holders at point of landing. Dealer submits those payments to NOAA Fisheries. Under alternative 4, all shareholders pay NOAA Fisheries an equal fee per share, regardless of whether the shares were fished or not; shareholders pay NOAA Fisheries directly. Alternative 5 (Preferred) includes measures where the shareholder directly pays NOAA Fisheries the fee based on landed value for shares held.

Once again, it is important to mention that while alternatives 2-5 would allow for up to a 3-percent fee to be recovered, initial conversations with GARFO staff indicated that a conservative initial estimate of management, enforcement, and data collection cost could be approximately \$100,000 (the equivalent of a 0.2 percent fee, based on the average ex-vessel value of the fishery in 2011-2013). Thus for the purpose of discussing a range of potential impacts, a 0.2 percent fee is compared to the potential maximum 3 percent fee, and the no action fee of 0 percent. The RA would review the cost recovery fee annually to determine if adjustment is warranted.

Unless market conditions change substantially in the near future, it would be expected that commercial fishermen would likely have landings for these shellfish resources close to the average landings for the 2011-2013 landings. Based on average landings and ex-vessel prices for the 2011-2013 period of 2.4 million bushels and \$12.32 per bushel for surfclams, and 3.3 million bushels and \$6.90 per bushel for ocean quahogs, and the maximum fee level of 3 percent; the total fee expected to be collected in the first year of the program would be \$1.57 million under the maximum fee level allowed to be collected under MSA. Using the same assumptions under the 0.2 percent fee; the total fee expected to be collected in the first year of the program would be \$104,676. Producer surplus would be reduced by the amount of the fee plus any other costs associated with paying the fee. Those costs would include time and materials required for completing the paperwork and paying the fee. Because preliminary analyses show that management, enforcement, and data collection fee would be about 0.2 percent, the maximum allowable 3-percent fee would be expected to fully cover costs directly related to the management, enforcement, and data collection and analysis of the surfclam and ocean quahog ITQ program.

These alternatives are not expected to alter the amount of surfclam and ocean quahog landings, and as such changes in landings, prices, CS, and harvest costs are not expected. In addition, no changes in enforcement cost or distributive effects are anticipated as a result of this action.

8.11.1.5.2 Administrative Mechanism to Update Biological Reference Points Alternatives

Alternative 1 (No Action/*Status quo*) requires that stock status determination criteria (i.e., biological reference points) must be updated in the FMP through an Amendment process. Preferred alternative 2 would not require an Amendment process, but status determination criteria must meet Council's standards for consistency with National Standards 1 and 2 definitions and peer review in order to be automatically updated in the FMP.

These alternatives are not expected to alter the amount of surfclam and ocean quahog landings, and as such changes in landings, prices, CS, harvest costs, and PS are not expected. In addition, no changes in enforcement cost or distributive effects are anticipated as a result of this action.

8.11.1.5.3 OY Range Alternatives

Under alternative 1 (No Action/*Status quo*) the Council must use a framework to modify the surfclam and ocean quahog OY ranges currently in the FMP; quotas may only be set lower than OY bounds if the ABC is lower, but it cannot be set higher without doing a Framework. Preferred alternative 2 removes the OY ranges from the FMP, and an OY value or ranges for

these species would be recommended by advisors as part of specifications process. Under alternative 3, the upper bound of OY would be set equal to ABC. Council must do a framework to modify the OY range (i.e., range stays in FMP). At lower bound, the Council can set quotas lower only if the ABC is less than the OY range.

These alternatives are not expected to alter the amount of surfclam and ocean quahog landings, and as such changes in landings, prices, CS, harvest costs, and PS are not expected. In addition, no changes in enforcement cost or distributive effects are anticipated as a result of this action.

8.11.1.5.4 Summary of Impacts

The alternatives presented in this amendment are administrative in nature. The overall impacts of these alternatives relative to the baseline are summarized in Table 17.

This action does not constitute a significant regulatory action under EO 12866 for the following reasons. First, it will not have an annual effect on the economy of more than \$100 million. The measures considered in this surfclam and ocean quahog analysis will not affect total revenues generated by the commercial sector to the extent that a \$100 million annual economic impact will occur in the surfclam and ocean quahog fisheries.

The proposed actions are not expected to alter the amount of surfclam and ocean quahog landings, and as such changes in landings, prices, CS, harvest costs, and PS are not expected. In addition, no changes in enforcement cost or distributive effects are anticipated as a result of this action. The preferred alternatives being considered by this action are necessary to improve the management of this fishery, and are administrative in nature.

The preferred alternatives being considered by this action are necessary to maintain the surfclam and ocean quahog stocks at sustainable harvest levels. The action benefits in a material way the economy, productivity, competition and jobs. The action will not adversely affect, in the long-term, competition, jobs, the environment, public health or safety, or state, local, or tribal government communities. In addition, this action will not create a serious inconsistency or otherwise interfere with an action taken or planned by another agency. No other agency has indicated that it plans an action that will affect the surfclam and ocean quahog fishery in the EEZ; however the New England Fishery Management Council may implement an amendment which introduces some areas that would restrict clam dredge gear to protect habitat. Further, this action will not materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of their participants. And, finally, the proposed action do not raise novel, legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in EO 12866.

Table 17. Qualitative comparison summary of economic effects (Neutral (0), Increased (+1), Reduced (-1)) of the alternatives relative to the baseline.

Issue	Alternatives	Landings	Prices	CS	Harvest Cost	PS	Enforcement Cost	Distributive Effects
<i>Cost Recovery</i>	Alternative 1 (No action/ <i>Status Quo</i>)	0	0	0	0	0	0	0
	Alternative 2 (ITQ tag holder pays via a federally permitted dealer)	0	0	0	0	-1	0	0
	Alternative 3 (ITQ shareholder and tag holder pays; two-tiered approach)	0	0	0	0	-1	0	0
	Alternative 4 (Shareholder pays directly; equal fee per share)	0	0	0	0	-1	0	0
	Alternative 5 - Preferred (Shareholder pays; tilefish model)	0	0	0	0	-1	0	0
<i>Administrative Mechanism to Update Biological Reference Points</i>	Alternative 1 (No action/ <i>Status Quo</i>)	0	0	0	0	0	0	0
	Alternative 2 - Preferred (Redefine the Status Determination Criteria)	0	0	0	0	0	0	0
<i>Optimum Yield Range</i>	Alternative 1 (No action/ <i>Status Quo</i>)	0	0	0	0	0	0	0
	Alternative 2 - Preferred (Remove OY Range from FMP; Advisors Recommend)	0	0	0	0	0	0	0
	Alternative 3 (Link Upper OY Range to ABC Recommendations)	0	0	0	0	0	0	0

8.11.2 Initial Regulatory Flexibility Analysis

An IRFA which evaluates the economic impacts of the alternatives on small business entities is provided in this section. When an agency publishes a general notice of proposed rulemaking for any proposed rule, the agency is required to prepare an IRFA describing the impacts of the proposed rule on small entities. Agencies also are required to prepare a Final Regulatory Flexibility Analysis (FRFA) when they promulgate the final rule. However, agencies may forgo the preparation of a regulatory flexibility analysis if they can certify that the rule would not have a significant economic impact on a substantial number of small entities. The IRFA was prepared to further evaluate the economic impacts of the measures for collecting fees and recovering costs associated with the management of the Atlantic surfclam and ocean quahog ITQ fisheries, measures that facilitate incorporation of revised stock status determination criteria (i.e., biological reference points) for surfclams and ocean quahog into the FMP, and measures that would modify or eliminate the OY ranges for surfclam and ocean quahog currently in the FMP.

8.11.2.1 Description of the Reasons Why Action by the Agency is Being Considered

A complete description of the purpose and need and objectives of this proposed rule is found under section 4.0. A statement of the problem for resolution is presented under section 4.0.

This action is being considered to bring the FMP into compliance with the requirements of the MSA, to ensure the FMP is kept up to date with the stock status determination criteria currently used to manage these fisheries, and to provide for a more efficient process of specifying OY when setting catch and landings limits through specifications.

8.11.2.2 The Objectives and Legal Basis of the Proposed Rule

A complete description of the objectives of this proposed rule is found under section 4.0. This action is taken under the authority of the MSA and regulations at 50 CFR part 648.

8.11.2.3 Estimate of the Number of Small Entities

The Small Business Administration (SBA) defines a small business in the commercial harvesting sector, as a firm with receipts (gross revenues) of up to \$5.5 and \$20.5 million for shellfish and for finfish business, respectively. A small business in the recreational fishery is a firm with receipts of up to \$7.5 million. The proposed measures presented in this document could affect ITQ shareholders and any vessel holding an active Federal permit for surfclam and ocean quahog. The category of small entities likely to be affected by the proposed actions is that of ITQ shareholders and fishermen in the commercial Atlantic surfclam and ocean quahog fisheries. The following discussion of impacts centers on the effects of the proposed actions on the mentioned small business entities. Who holds ITQ quota share is a matter of public record; lists of current ITQ shareholders of record may be found at:

<http://www.greateratlantic.fisheries.noaa.gov/sustainable/species/clam/>

The list of ITQ shareholders at the start of 2014 is presented in Appendix C. A large number of the shareholders listed are corporations, or banking/lending institutions holding the allocation

permits in their names as collateral. NOAA Fisheries currently has limited ‘ownership’ information on these allocation holders, such as business names and basic contact information (i.e., addresses and phone number). NOAA Fisheries cannot, from this information alone, discern who the individual people are that hold an interest in these corporations and banking/lending institutions. A single individual, therefore, could potentially own or control many of these individual share allocations. Similarly, a number of banks listed as allocation holders could have a single borrower under multiple loans. While the majority of the ITQ shareholders are listed as either a business or a banking/lending institution, some are listed as an individual. An ITQ shareholder listed as an individual also does not necessarily mean that these individuals are not associated with a partnership and/or one of the ITQs held by a corporation or banking/lending institution. As such, given available information it is not possible to aggregated ITQ allocation ownership at the aggregate firm level. Industry members have also reported that there are various types of ITQ transactions that frequently occur, including permanent transfers (sale), relatively long-term leases (e.g., five or more years), and transfers of cage tags. The nature of ITQ or quota transactions needs to be transparent in order to better assess quota ownership and control. The following tables contain summaries of the 2014 surfclam and ocean quahog initial ownership allocations (Table 18 and 19).

Table 18. Initial 2014 surfclam allocation by state.

No. of Allocations	State	Total Bushels Held	Average Bu./Allocation
3	MA	54,688	18,229
3	RI	121,440	40,480
4	CT	418,912	104,728
9	MD	675,200	75,022
3	PA	449,280	149,760
39	NJ	974,080	24,976
5	VA	588,032	117,606
4	NH, NY, FL Combined	114,592	28,648
Total = 70		3,396,224	48,517

Table 19. Initial 2014 ocean quahog allocation by state.

No. of Allocations	State	Total Bushels Held	Average Bu./Allocation
3	NY	299,912	99,971
23	NJ	2,241,632	97,462
6	MD	62,016	10,336
4	VA	1,047,776	261,944
5	CA, ME, PA, RI Combined	1,674,144	334,829
Total = 41		5,325,280	129,885

NOAA Fisheries cannot from this allocation ownership information alone, discern who the individual people are that hold an interest in these corporations and banking/lending institutions; therefore, there is not information to characterize small entities at the allocation level. Instead, information on fishing activities is used to characterize and enumerate small entities.

Table 20 lists the number of vessels active in harvesting surfclams and ocean quahogs (non-Maine) fisheries. Some of these vessels may not hold allocations. Depending on the regulations promulgated, the population affected by the regulation may change. In addition, 11 vessels participated in the Maine ocean quahog fishery in 2013. All of these vessels readily fall within the definition of small businesses.

Table 20. Vessels participating in the 2013 surfclam and non-Maine ocean quahog fisheries.

Species Harvested	Number of vessels
Surfclam only	33
Ocean quahogs only	9
Both surfclam and ocean quahogs	7
Total	49

In 2013, there were 713 vessels that held a valid surfclam or ocean quahog permit. However, not all of those vessels are active participants in either fishery. There were 49 vessels that landed either surfclam or ocean quahog.

Some of the vessels with surfclam or ocean quahog permits may be considered to be part of the same firm, because they may have the same owners. In order to identify firms, new vessel ownership data, which have been added to the permit database, was used to identify all the individuals who own fishing vessels. With this information, vessels were grouped together according to common owners. The resulting groupings were then treated as a fishing business, for purposes of RFA analyses. When permit ownership data is considered, in 2013 there were 406 fishing firms that held at least 1 surfclam or ocean quahog permit. Firms are classified as finfish or shellfish firms based on the activity which they derive the most revenue. Using the \$5.5 million cutoff for shellfish firms and the \$20.5 million cutoff for finfish firms, there are 386 entities that are small and 20 that are large.

While the surfclam and ocean quahog fishery is open access, many of the permitted vessels do not actively participate in the fishery. These potential participants likely do not own quota, likely do not have established marketing relationships with surfclam and ocean quahog processors, and likely do not own gear needed to harvest surfclam and ocean quahog. Therefore, while there are 406 regulated entities, many of these entities are only potential participants and unlikely to experience any direct effects of the proposed regulations.

Table 21 describes the number of small entities, their average total and surfclam and ocean quahog revenues in millions of dollars in 2013. On average, for these small entities, surfclams and ocean quahogs are responsible for a small fraction of landings.

While the surfclam and ocean quahog fishery is open access, many of the permitted vessels do not actively participate in the fishery. These potential participants likely do not own quota, likely do not have established marketing relationships with surfclam and ocean quahog processors, and likely do not own gear needed to harvest surfclam and ocean quahog. Therefore, while there are 406 regulated entities, many of these entities are only potential participants and unlikely to experience any direct effects of the proposed regulations.

Table 21. Small entities (based on the \$5.5M SBA definition) in 2013. Entity average revenues and surfclam and ocean quahog (SC/OQ) revenues are given.

Revenue (millions of dollars (M))	Count of Firms	Average Gross Receipts	Average SC/OQ Receipts
<0.5	154	\$205,620	\$13,541
0.5-1M	75	\$716,838	\$59,040
1-2M	101	\$1,392,039	\$67,120
2-5.5M	42	\$3,013,113	\$332,322
>5.5M	C ^a	C ^a	C ^a
Total	386	-	-

^a Confidential

In order to provide a more accurate count and description of the small directly regulated entities, landings data are used to select only firms that were active in either the surfclam and/or ocean quahog fishery. There are 29 active fishing firms that landed surfclam and/or ocean quahog, of which 26 are small entities and 3 are large entities.

Table 22 describes the number of small entities that are active surfclam and ocean quahog fishery participants; data suggest these participants derive a large share of gross receipts from the surfclam and ocean quahog fishery.

Table 22. Active surfclam and ocean quahog fishery small entities in 2013. Entity average total and surfclam and ocean quahog (SC/OQ) revenues are given.

Revenue (millions of dollars (M))	Count of Firms	Average Gross Receipts	Average SC/OQ Receipts
0-1M	17	\$421,701	\$393,488
1-2M	5	\$1,366,782	\$1,355,820
2-5.5M	4	\$3,591,773	\$3,489,377
Total	26	\$1,091,150	\$1,054,843

8.11.2.4 Reporting Requirements

This action will contain a collection-of-information requirement for purposes of the PRA. Under the proposed cost recovery program, ITQ shareholders, or dealers may be required to provide tax identification numbers or a social security number. In addition, the payment of bills under cost recovery (and any rebates, refunds) associated with the payment system may require that additional information be provided.

The collection of information requirements associated with the measures proposed in this amendment will be addressed through a separate analysis conducted by NOAA Fisheries. The PRA package prepared in support of this action, including the required forms and supporting statements, will be submitted to NOAA Fisheries headquarters by the NOAA Fisheries GARFO under separate cover. The permitting and reporting requirements in the commercial fishery are expected to impact all shareholders that receive ITQ allocations.

8.11.2.5 Conflict with Other Federal Rules

This action does not duplicate, overlap, or conflict with other Federal rules.

8.11.2.6 Analysis of Economic Impacts

In this section, the effects of actions were analyzed by employing quantitative approaches to the extent possible. Where quantitative data were not available, qualitative analyses were conducted. The management alternatives proposed in this document are described in detail in sections 4.0 and 5.0 and are briefly summarized in sections 8.11.4 and 8.11.5 and Table 16 above. As previously indicated, the administrative mechanism to update BRPs alternatives and the OY range alternatives are administrative in nature and are not expected to change fishing methods or actives nor to alter the catch and landings limits for these species or the allocation of the resources among user groups (section 7.4). These alternatives are not expected to impact the economic aspects of these fisheries. As previously specified, these alternatives are not expected to produce changes in landings, prices, consumer and producer surplus, harvesting costs, enforcement costs, and distributional effects (section 8.11.1.5.1). These alternatives are not further discussed in this section.

Under cost recovery alternative 1 (No Action/*Status quo*) fees and cost recovery would not be implemented. This alternative would be contrary to the Congressional mandate to collect fees for LAPP programs as specified in the MSA. No economic impacts are expected under alternative 1.

Alternatives 2-5, including preferred Alternative 5 (Shareholder pays; golden tilefish model), would implement a fee and cost recovery program for the surfclam and ocean quahog fisheries. The main differences between these alternatives are the manner in which payments are collected and made. The cost recovery alternatives (2-5) are expected to impact the economic aspects of these fisheries as they would implement mechanisms to collect fees and recover costs related to management, data collection and analysis, and enforcement of the Atlantic surfclam and ocean quahog ITQ fisheries as required under MSA. These cost recovery alternatives are not expected to change fishing methods or actives nor to alter the catch and landings limits for these species or

the allocation of the resources among user groups. In addition, they are not expected to change landings, prices, consumer surplus, harvesting costs, enforcement costs, and distributional effects (section 8.11.1.5.1). However, under these alternatives it is expected that producer surplus would be reduced by the amount of the fee plus any other costs associated with paying the fee. Those costs would include time and materials required for completing the paperwork and paying the fee. Section 5.1 details how cost recover fees are assessed. The economic impact of the cost recovery alternatives are described below

In the current analysis, effects associated with the proposed cost recovery management measures should be evaluated by looking at the impact of the proposed measures on production costs due to the amount of cost recovery fees to be implemented. Procedurally, when assessing the economic impacts at the firm level (the basic unit of observation) of the proposed cost recovery measures, average surfclam and/or ocean quahog landings by each firm during the 2011-2013 period were used to derive landings and values of clams landed.¹⁵ The values of clams landed at the firm level were used to assess cost recover fees. Alternatives requiring the assessment of cost recovery fees when ITQ shareholder pays fee on a per share basis (alternatives 2 and 3), ITQ allocation values for 2014 (number of cage tag issued) were used.

A description of the Atlantic surfclam and ocean quahog fisheries is presented in section 6.0 of this EA and Amendment 13 to the FMP (MAFMC 2003). Communities from Maine to Virginia are involved in the harvesting and processing of surfclams and ocean quahogs. Ports in New Jersey and Massachusetts handle the most volume and value, particularly Atlantic City and Point Pleasant, New Jersey, and New Bedford, Massachusetts. There are also landings in Ocean City, Maryland, and the Jonesport and Beals Island areas of Maine. The Maine fishery is entirely for ocean quahogs, which are sold as shellstock for the half-shell market. The other fisheries are industrialized ones for surfclams and ocean quahogs, which are hand shucked or steam-shucked and processed into fried, canned, and frozen products. Additional information on "Community Profiles for the Northeast US Fisheries" can be found at: <http://www.nefsc.noaa.gov/read/socialsci/communityProfiles.html>.

The commercial fishery for surfclam in Federal waters is prosecuted with large vessels and hydraulic dredges. The commercial fishery for ocean quahogs in Federal waters is prosecuted with large vessels and hydraulic dredges, and is very different from the small Maine fishery prosecuted with small vessels. The small ocean quahog fishery in Maine receives an annual allocation of 100,000 bushels of mahogany quahogs. This fishery is not an ITQ fishery; therefore, it would not be impacted by the proposed measures for collecting fees and recovering costs associated with the management of the Atlantic surfclam and ocean quahog ITQ fisheries. In addition, the measures that facilitate incorporation of revised stock status determination criteria (i.e., biological reference points) for surfclams and ocean quahog into the FMP and measures that would modify or eliminate the OY ranges are administrative in nature and not expected to result in social and economic impacts. As such, the Maine fishery is not discussed further.

¹⁵ Economic impacts at the vessel level were described in section 7.4.1.

The ITQ system implemented for the surfclam and ocean quahog fisheries allows industry participants to benefit from a high degree of flexibility in their fishing operations. The actual number of individuals or businesses holding these registered allocations may be smaller, since each holder may often maintain multiple allocations for accounting, or liability purposes.

The average ex-vessel price of surfclams reported by processors was \$12.63 per bushel in 2013. The total ex-vessel value of the 2013 federal harvest was approximately \$31.0 million. The average ex-vessel price of non-Maine ocean quahogs reported by processors in 2013 was \$6.87 per bushel. The total ex-vessel value of the 2013 federal harvest outside of Maine was approximately \$22.9 million.

Analysis of Impacts of Alternatives

Under the No action alternative, a fee and costs recovery program would not be implemented; therefore, no economic impacts would result when compared to the current conditions. This alternative would be in violation of provisions of the MSA, as the Act requires that a process be established to recover the costs directly related to management, data collection and analysis, and enforcement of ITQ programs.

Alternatives 2-5 could collect up to 3 percent maximum of the ex-vessel value (gross receipts) of surfclam and ocean quahog harvested under the IFQ program. However, initial conversations with GARFO staff indicated that a conservative initial estimate of management, enforcement, and data collection cost could be approximately \$100,000 (the equivalent of a 0.2 percent fee, based on the ex-vessel value of the fishery in 2013), thus for the purpose of discussing a range of potential impacts, a 0.2 percent fee is compared to the potential maximum 3 percent fee, and the no action fee of 0 percent. Surfclam and ocean quahog landings have been relatively stable during the last 3 years (2011-2013; Table 2). Unless market conditions change substantially in the near future, it would be expected that commercial fishermen would likely have landings for these shellfish resources close to the average landings for the 2011-2013 landings. Based on average gross receipts (ex-vessel value) for the 26 active surfclam and ocean quahog fishery small entities in 2013, the average cost associated with a 0.2 percent fee recovery program would be \$46 for firms with overall revenues of <\$1 million; \$542 for firms with overall revenues of \$1 - \$2 million; and \$1,745 for firms with overall revenues of \$2 to \$5.5 million (Table 23). Cost recovery fees at the firm level associated with the maximum allowable 3 percent cost recovery fee under MSA are also presented in Table 23.

It is important to mention that while alternatives 2-5 could impose a cost recovery rate of up to 3 percent, this rate is likely to be substantially lower given the amounts currently collected in other Northeast ITQ fisheries, and may change in subsequent years. For example, Table 23 shows the potential fees under a 3 and a 0.2 percent fee for small firms. The overall cost to firms associated with the proposed fees and cost recovery system would be the same regardless of which alternative is analyzed (alternatives 2-5). However, how those fees are collected and/or paid vary by alternative. For firms that land both species, the average cost recovery fee will likely vary from these estimates and would depend on the proportion of each species landed. The potential overall cost to business firms associated with a cost recovery fee under alternatives 2 and 5

would depend on the percentage recovery fee implemented for a specific fishing year and the amount of landings by the specific firm which may use one or multiple vessels.

As previously indicated, individual allocations (tag numbers) cannot be aggregated at the firm level due to lack of data. As such, in order to analyze the potential impacts under alternative 4, the same assumptions about 2011-2013 landings and ex-vessel prices for these species presented in section 7.4.1 are used here. The potential per tag cost associated with the cost recovery fee of 3 percent could range on average from approximately \$4.10 per ocean quahog tag to \$8.36 per surfclam tag (Table 7). The potential cost to associate with the cost recovery fee of up to 0.2 percent could range on average from \$0.27 per ocean quahog tag to \$0.56 per surfclam tag. Table 8 shows the potential shareholder cost recovery fees (maximum, minimum, average) under a 3 and 0.2 percent fee given the surfclam and ocean quahog tags allocated in 2014.

It is expected that under the two-tier approach in alternative 3, the portion of the cost recovery fee assessed proportionate to shareholder would be substantially smaller than the portion of the cost recovery fee to be paid when the tags are used to land. This is due to the fact that the administrative cost of managing allocations and issuing tags is lower than the overall costs directly related to management, data collection and analysis, and enforcement of this ITQ program. The potential overall cost to business firms associated with a cost recovery fee under alternatives 3 and 4 would depend on the percentage fee implemented for a specific fishing year and the overall number of shares or tags received and/or used to land by the specific firm.

The overall net cost per ITQ shareholder, vessel, or tag holder associated with surfclam and ocean quahog cost recovery would depend on the cost recovery fee implemented which cannot exceed 3 percent of the ex-vessel value, the amount and value of surfclam and ocean quahog landed, and any other potential costs associated with paying the fee (e.g., time to compile information and complete paperwork associated with payment of fees). In addition, there would likely be a small cost in time to dealers associated with tracking payment of fees associated with any ITQ landings.

Alternatives 2-5 are expected to have negative socioeconomic impacts compared to alternative 1 as fishermen revenues could potentially decrease by up to 3 percent of ex-vessel value due to fees collected by NOAA Fisheries. The extent of negative impacts is slightly different for each of the alternatives. Alternative 4 is expected to incur the smallest negative impacts to individuals that land surfclams and ocean quahogs because the fees to be recovered are spread across all shareholders. Alternative 4 would have the greatest negative impacts to shareholders that do not land shellfish. This is because the fee would be shared by all shareholders regardless of whether the ITQ was fished or not. In terms of impacts, this would be followed by alternative 3 (two-tiered approach) because all tag holders would have a percentage of the fee assessed proportionate to the amount of allocation (shares) held by the shareholder. The initial portion of the fee would be paid by all shareholders regardless of whether their ITQ was fished or not. Therefore, a portion of the fee is spread across all shareholders similar to alternative 4. Alternatives 2 and 5 would have the greatest negative impacts to individuals that land surfclams and ocean quahogs because the fee is only borne by the ITQ quota (tags) that have been fished; therefore, the universe of quota shares to which the fee is applied is smaller. Alternatives 2 and 5

would have no impacts on shareholders that did not land shellfish with their surfclam and ocean quahog ITQ.

Alternatives 2-5 would impose a cost recovery fee of up to 3 percent of ex-vessel value of surfclam and ocean quahog harvested under the ITQ program. However, the actual rate is likely to be substantially lower given the amounts currently collected in other Northeast ITQ fisheries, and may change in subsequent years. Each year, NOAA Fisheries will determine the percentage of the ex-vessel value of surfclam and ocean quahog that would be collected. It is possible that neutral societal costs will occur as management costs associated with fishing this public resource are simply shifted from the general public/tax payer to the fishing industry as required under MSA.

Table 23. Average cost associated with a 0.2 and 3 percent fee recovery program for active surfclam and ocean quahog fishery small entities in 2013. Entity average total and surfclam and ocean quahog (SC/OQ) revenues are given.

Revenue (millions of dollars (M))	Count of Firms	Average Gross Receipts	Average SC/OQ Receipts	Average Cost associated with a 0.2 percent fee recovery program	Average Cost associated with a 3 percent fee recovery program	Per firm average Cost associated with a 0.2 percent fee recovery program	Per firm average Cost associated with a 3 percent fee recovery program
0-1M	17	\$421,701	\$393,488	\$787	\$11,805	\$46	\$694
1-2M	5	\$1,366,782	\$1,355,820	\$2,712	\$40,675	\$542	\$8,135
2-5.5M	4	\$3,591,773	\$3,489,377	\$6,979	\$104,681	\$1,745	\$26,170
Total	26	\$1,091,150	\$1,054,843	\$2,110	\$31,645	\$81	\$1,217

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10.0 LIST OF AGENCIES AND PERSONS CONSULTED

In preparing this document, the Council consulted with NOAA Fisheries, New England and South Atlantic Fishery Management Councils, Fish and Wildlife Service, and the states of Maine through North Carolina through their membership on the Mid-Atlantic and New England Fishery Management Councils. To ensure compliance with NOAA Fisheries formatting requirements, the advice of NOAA Fisheries GARFO personnel was sought.

**Copies of this document are available from Dr. Christopher M. Moore, Executive Director,
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APPENDICES

Appendix A

**Golden Tilefish and Atlantic Sea Scallop Individual Fishing
Quota Cost Recovery Program Annual Reports**



2013 Annual Report of the Tilefish Individual Fishing Quota Cost Recovery Program

June 2014

Prepared by:
National Marine Fisheries Service
Greater Atlantic Regional Fisheries Office
55 Great Republic Drive
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Background

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires NOAA's National Marine Fisheries Service (NMFS) to collect fees to recover the "actual costs directly related to the management, data collection, and enforcement" of an Individual Fishing Quota (IFQ) program (16 U.S.C. 1854(d)(2)). The law provides that the fee be paid by IFQ allocation shareholders, based on the ex-vessel value of fish landed under the program, where ex-vessel value is calculated as the price paid to the vessel per pound multiplied by the total weight landed. The fee may be up to, but cannot exceed, 3 percent of the ex-vessel value of the fish harvested under the IFQ program.

Although the tilefish fishing year runs from November 1 through October 31, the cost recovery fee is based on expenses and landings made during each calendar year. The 2013 calendar year (January 1, 2013, through December 31, 2013) was the fourth year for which this fee was collected.

Use of Funds

Payments received as a result of the tilefish IFQ cost recovery program are deposited in the Limited Access System Administrative Fund as required by the Magnuson-Stevens Act. Funds deposited in this account are available only to the Secretary of Commerce and may only be used to defray the costs of management and enforcement of the fishery for which the fees were collected. Therefore, fees collected as part of this cost recovery program will be used for management and enforcement of the tilefish IFQ program.

Determining Ex-Vessel Value

Because the fee obligation must be based on a percentage of the ex-vessel value of the tilefish IFQ fishery, it is necessary to calculate those values based on actual landings and the price paid to the vessel. Federally permitted tilefish dealers are required to report the weight and price paid for all tilefish purchased. Ex-vessel prices vary over the course of the year, but the small number of vessels and dealers participating in the tilefish IFQ fishery make it possible to use an exact total value from each landing of IFQ tilefish. For the 2013 calendar year, the total of all tilefish IFQ landings was 1,823,272 pounds (live weight) with a total ex-vessel value of \$5,787,335. This represents an increase in both landed weight and total value from 2012, when landings and ex-vessel value were 1,799,367 pounds (live weight) and \$5,372,921, respectively.

Cost of Management and Enforcement

The Magnuson-Stevens Act requires the collection of the IFQ fee to recover the actual costs of the program. We have determined the recoverable costs associated with the management, enforcement, and data collection in the tilefish IFQ program include only the incremental costs of the IFQ program, and not costs that would still have been incurred in the administration of the tilefish fishery if there was no IFQ program. In addition, costs associated with the initial development of the IFQ program are not included in recoverable costs. The inclusion of one-

time startup costs associated with the initial development of a new management system would greatly increase the fee in the first year of any IFQ program.

We calculated personnel costs by multiplying hours spent by staff on tasks directly related to the IFQ program with the hourly salary rates for those individuals. Salary rates include the Government's share of benefits on a prorated basis. We calculate contract expenses as the cost of contract employees prorated for the percentage of time the contract employees spent on tasks directly related to the IFQ program. In the 2013 fee period, the recoverable expenses primarily consisted of time spent by personnel working on tasks related to the administration of the IFQ program in the following divisions:

Sustainable Fisheries Division (SFD)

SFD has primary responsibility for the management and implementation of the Tilefish Fishery Management Plan, which includes the tilefish IFQ program. SFD staff provides oversight to the IFQ program and associated allocation monitoring and cost recovery components, and generates the annual report. SFD is the principal point of contact with the Mid-Atlantic Fishery Management Council and implements any needed and approved regulatory changes.

Analysis and Program Support Division (APSD)

APSD is responsible for most of the tasks associated with the ongoing operation of the tilefish IFQ program. These include annual IFQ allocation tasks such as issuing annual allocation permits and processing and tracking both temporary leases and permanent allocation transfers. This division also handles cost recovery tasks, such as generating individual fees, mailing bills, tracking payments, and following up on any late payments.

In 2013, our Regional Office underwent some organizational changes and the Fisheries Data Services Division was phased out. Many of the tasks previously done by this division were moved to APSD. These tasks include data collection and analysis, such as quality control of incoming data sources and tracking of landings against IFQ allocations. Data quality control is a critical function of any IFQ program. More than in most other fisheries, IFQ fisheries depend on timely processing and auditing of landings and dealer-reported price information from each fishing trip to ensure that landings are correctly attributed to individual allocations and that cost recovery fees are accurate and reflect the value of fish landed.

Information Resource Management (IRM)

IRM is responsible for development and maintenance of the technological infrastructure of the tilefish IFQ program. This infrastructure includes the internal databases and computer systems for handling allocations, the Fish-On-Line website, and the web interface to the U.S. Department of the Treasury's Pay.gov service. These databases are critical to the monitoring of the IFQ program because they track the individual landings, IFQ leasing, and permanent allocation transfers that take place in the tilefish IFQ fishery.

Operations and Budget Division (OBD)

OBD ensures the calculations of program personnel and other costs are correct and meet required standards. In addition, OBD coordinates the use of collected receipts to ensure that the money is used to support the management of the fishery in which it was collected.

Stakeholder Engagement Division (SED)

SED is the newest division in the Region, created in 2013. This division now contains our port agents in the Region, as well as our communications team. SED determined that there were no recoverable expenses associated with the tilefish IFQ program during 2013.

Office of Law Enforcement (OLE)

OLE special agents and enforcement officers ensure compliance with the Nation's marine resource laws and take enforcement action when these laws are violated. OLE determined there were no increased enforcement activities as a result of the tilefish IFQ program and, therefore, there were no recoverable expenses during 2013.

NOAA General Counsel (GC)

The Northeast Section of the NOAA Office of General Counsel provides legal advice to NMFS and the Councils and reviews management actions for consistency with applicable legal requirements. GC determined that there were no recoverable expenses associated with the tilefish IFQ program during 2013.

Table 1 provides details of how the recoverable costs were calculated by division within the Greater Atlantic Regional Fisheries Office of NMFS.

Table 1. Recoverable costs associated with management and enforcement of the tilefish IFQ program, 2013.

Greater Atlantic Region Divisions	SFD	APSD	IRM	OBD	SED	OLE	GC	Total
Personnel †	\$3,466	\$19,226	\$8,604	\$4,591	\$-	\$-	\$-	\$35,887
Travel & Transportation	\$-	\$23	\$-	\$-	\$-	\$-	\$-	\$23
Printing	\$-	\$1	\$-	\$-	\$-	\$-	\$-	\$1
Contracts	\$-	\$53	\$-	\$-	\$-	\$-	\$-	\$53
Supplies	\$-	\$2	\$-	\$-	\$-	\$-	\$-	\$2
Equipment	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Other	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$3,466	\$19,305	\$8,604	\$4,591	\$-	\$-	\$-	\$35,966

Greater Atlantic Region Divisions: SFD (Sustainable Fisheries); APSD (Analysis and Program Support); IRM (Information Resource Management); OBD (Operations and Budget); SED (Stakeholder Engagement Division); OLE (Office of Law Enforcement); GC (NOAA General Counsel).

† Personnel costs include all benefits

Calculating the Fee Percentage

The calculated 2013 tilefish IFQ fee percentage was 0.6214 percent. We calculated the fee percentage based on the total fishery ex-vessel value of \$5,787,335 and total recoverable program costs of \$35,966 using the following formula:

$$\frac{\$35,966}{\$5,787,335} \times 100 = 0.6214\%$$

Calculating IFQ Allocation Fees

To determine the appropriate fee for each IFQ allocation shareholder, we use the ex-vessel value of each landing of tilefish under a specific IFQ allocation and multiply the sum of those values by the fee percentage. Under the tilefish IFQ program regulations, an IFQ allocation shareholder is responsible for the IFQ fee based on the value of the landings of tilefish authorized under his/her tilefish initial IFQ allocation, including landings made on any allocation that he/she may have leased to another IFQ allocation permit holder. The allocation tracking program that we have developed is able to identify all tilefish IFQ leases and attribute landings to the original allocation shareholder. If a vessel landing tilefish has IFQ allocation available from both the vessel owner’s initial allocation and from leased allocation, we attribute tilefish landings to the leased allocation first. If there is allocation from multiple leases, we attribute landings based on the order the leases were processed, on a first-in first-out basis.

Changes from Previous Years

Total recoverable costs can vary from year to year. Some management tasks may need to be done every year, and some tasks may require more time and effort in some years. As shown in Table 2, the tilefish IFQ recoverable costs in 2013 were higher than in previous years. Several different activities contributed to the overall increased staff time spent on the management of the tilefish fishery in 2013. The primary increase was from the Quality Assurance/Quality Control (QA/QC) of tilefish landings data to improve the accuracy and timeliness of dealer and Vessel Trip Report reported landings and price information. Although QA/QC of tilefish landings data was conducted prior to the IFQ system, individual quotas and the cost recovery process require greater attention to each landing report, particularly to dealer-reported price data. Some of the recoverable time for this task had not been accurately captured in previous years, and so was not included in prior bills. In addition, in 2013 we had a small rulemaking action to ensure the cost recovery regulations were consistent with the process as implemented, which added some time for SFD staff. OBD conducted additional work, including researching Treasury Department, Department of Commerce, and NOAA financial policies and guidance regarding fee collection and use of collected fees.

Table 2. Tilefish IFQ recoverable costs, value of the fishery, and fee percentage, 2010-2013.

Fee Year	2010	2011	2012	2013
Recoverable Costs	\$21,438	\$21,353	\$14,242	\$35,966
Total Fishery Value	\$5,054,073	\$5,566,543	\$5,372,291	\$5,787,335
Fee percentage	0.424%	0.3835%	0.2650%	0.6214%

Conclusion

We mailed bills for the 2013 tilefish IFQ fee to the 12 allocation shareholders on March 22, 2014. Allocation shareholders had 45 days to pay the balance due through the Northeast Region's Pay.gov section of the Fish-On-Line website. The majority of allocation shareholders paid their fee on time and there were no appeals of the initial fee calculations.



2013 Annual Report of the Atlantic Sea Scallop Individual Fishing Quota Cost Recovery Program

May 2014

Prepared by:
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Background

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires NOAA's National Marine Fisheries Service (NMFS) to collect fees to recover the "actual costs directly related to the management, data collection, and enforcement" of an individual fishing quota (IFQ) program (16 U.S.C. 1854(d)(2)). The law provides that IFQ allocation holders pay a fee based on the ex-vessel value of fish landed under the program. The fee may be as high as, but cannot exceed, 3 percent of the ex-vessel value of the fish harvested under the IFQ program. For the Limited Access General Category (LAGC) scallop IFQ program, the ex-vessel value is calculated as the average price paid per pound of scallops during the fee period multiplied by the total weight landed.

Although the scallop fishing year runs from March 1 through the last day of February, the cost recovery fee is based on expenses and landings made during the fee period, which runs from October 1 through September 30 each year. The 2013 fee period (October 1, 2012, through September 30, 2013) was the second time that NMFS collected fees from scallop IFQ vessels.

Use of Funds

Payments received as a result of the scallop IFQ cost recovery program are deposited in the Limited Access System Administrative Fund as required by the Magnuson-Stevens Act. Funds deposited in this account are available only to the Secretary of Commerce and may only be used to defray the costs of management and enforcement of the fishery for which the fees were collected. Therefore, fees collected as part of this cost recovery program will be used for management and enforcement of the scallop IFQ program.

Determining the Value of the Fishery

As required in the Scallop Fishery Management Plan (FMP), NMFS determines the value of the scallop IFQ fishery by multiplying the total landings of IFQ scallops by the average price paid by dealers to IFQ scallop vessels for IFQ scallops. While ex-vessel prices for scallops vary over the course of the fee period, the Scallop FMP requires that the price of all IFQ scallops landed during the entire fee period be the basis of the average price (as opposed to the average price per vessel, per month, or some other unit of scallop landings). Federally permitted scallop dealers must report the weight and price paid for all scallops purchased. From these data, we calculated an average price of \$11.30 paid to vessels participating in the scallop IFQ fishery during the 2013 fee period. The total of all LAGC IFQ landings during the 2013 fee period was 2,811,834 lb (shucked meats). Using this average price, we determined that the total value of LAGC IFQ landings was \$31,863,229 for the 2013 fee period. NMFS used this value to determine the overall fee percentage and the individual fees for vessel owners. We describe these determinations on page 4 of this report.

Cost of Management and Enforcement

The Magnuson-Stevens Act requires the collection of the IFQ fee to recover the actual costs of the program. We have determined that the recoverable costs associated with the management,

enforcement, and data collection for the scallop IFQ program include only the incremental costs of the IFQ program, and not the costs that would still have been incurred to administer the scallop fishery if there were no IFQ program. In addition, costs associated with the initial development of the IFQ program are not recoverable costs.

We calculated personnel costs by multiplying hours spent by staff on tasks directly related to the IFQ program, with the hourly salary rates for those individuals. Salary rates included the Government's share of benefits, prorated. We calculated contract expenses as the cost of contract employees prorated for the percentage of time the contract employees spent on tasks directly related to the IFQ program. In the 2013 fee period, the recoverable expenses primarily consisted of time spent by personnel working on tasks related to the administration of the IFQ program in the following Divisions:

Sustainable Fisheries Division (SFD)

SFD is primarily responsible for the management and implementation of the Atlantic sea scallop Fishery Management Plan, which includes the LAGC IFQ program. SFD staff provides oversight to the IFQ program and associated allocation monitoring and cost recovery requirements.

Analysis and Program Support Division (APS)

APS is responsible for most of the LAGC IFQ implementation tasks. These included issuing over 300 annual IFQ allocations and processing and tracking more than 350 temporary leases and permanent allocation transfers. APS is also responsible for generating individual fees, mailing bills, tracking payments, and following up on late payments under the cost recovery program.

APS is also responsible for data collection and analysis, including extensive quality control of incoming data sources and tracking of landings against IFQ allocations. Quality control is a critical function of APS and of any IFQ program because it ensures that the landings data NMFS uses to calculate IFQ usage and ultimately the individual fee is correct and consistent with owners' records. APS staff therefore committed time to working with vessel owners, dealers, and other NMFS offices to correct landings data.

Information Resource Management (IRM)

IRM is responsible for development and maintenance of the technological infrastructure of the scallop IFQ program. This infrastructure includes the internal databases and computer systems for handling allocations, the Fish-On-Line website, and the new web interface to the U.S. Department of the Treasury's Pay.gov service. These databases are critical to the monitoring of IFQ program because they track the individual landings, IFQ leasing, and permanent allocation transfers that take place in the LAGC IFQ fishery.

Operations and Budget Division (OBD)

OBD ensures that the calculations of program personnel and other costs are correct and meet required standards, as well as coordinates the use of collected receipts.

The Office of Law Enforcement (OLE)

OLE determined that there were no increased enforcement activities as a result of the scallop IFQ program, and, therefore, there were no recoverable expenses for enforcement.

Table 1 (below) provides details of how we calculated the recoverable costs per division within the Northeast Regional Office.

Table 1: Recoverable costs associated with management and enforcement of the scallop IFQ program, 2013 fee period.

Northeast Region Divisions	SFD	IRM	OLE	OBD	APS	FDS	Total
Personnel †	\$2,404	\$18,729	\$ -	\$7,573	\$54,161	\$0	\$82,867
Travel & Transportation	\$-	\$ -	\$ -	\$ -	\$678	\$ -	\$678
Printing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contracts	\$ -	\$1,393	\$ -	\$ -	\$ 33,554	\$0	\$34,947
Supplies	\$ -	\$ -	\$ -	\$ -	\$19	\$ -	\$19
Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$2,404	\$20,122	\$ -	\$7,573	\$88,412	\$	\$118,510

† Personnel costs include all benefits

Calculating the Fee as a Percentage of Total Fishery Value

We calculated that the recoverable costs for the scallop IFQ program for the 2013 fee period represent 0.0.3719 percent of the value of the scallop IFQ fishery. This fee percentage was calculated based on the total fishery value of \$31,773,719 and total recoverable program costs of \$118,510, using the following formula:

$$\frac{\$118,510}{\$31,863,229} \times 100 = 0.3719 \text{ percent}$$

This value of 0.3719 percent is less than the possible upper limit fee percentage of 3.0 percent (see background section, above). Thus, we were able to assess permit holders the total recoverable costs of fee period 2013.

Calculating Fees Assessed to Individual Permit Holders

Under the scallop IFQ program regulations, an LAGC IFQ permit holder is responsible for the IFQ fee based on the value of the landings of scallops attributed to his/her LAGC scallop IFQ permit, including landings made from an allocation that he/she leased from another IFQ holder. The allocation tracking program that we have developed is able to identify all scallop IFQ leases and attribute landings to the vessel that landed the scallops. To determine the appropriate IFQ

fee for each LAGC IFQ permit holder, we multiply the permit holder's landings by the average price and then by the fee percentage. This is represented by the following formula:

$$(\text{IFQ landings}) \times (\$11.30) \times (0.3719 \text{ percent}) = 2013 \text{ cost recovery fee}$$

Conclusion

We mailed bills for the scallop IFQ 2013 fee period to 154 LAGC IFQ permit holders on November 18 2013. Fees ranged from \$21.30 to \$3,147. Permit holders had until January 1, 2014, to pay the balance due through the Greater Atlantic Region's Pay.gov section of the Fish-On-Line website. Permit holders paid all fees and submitted no appeals of the fee calculations.

In the 2013 fee period, the total recoverable costs increased slightly from the previous year. This fee increase was a result of administrative time to implement Framework 24 mid-year allocation adjustments and time associated with implementing new IFQ leasing provisions.

Appendix B

Table 1. Essential Fish Habitat descriptions for federally-managed species/life stages in the U.S. Northeast Shelf Ecosystem that are vulnerable to bottom tending fishing gear.

Species	Life Stage	Geographic Area of EFH	Depth (meters)	Bottom Type
American plaice	juvenile	GOM, including estuaries from Passamaquoddy Bay to Saco Bay, ME and from Massachusetts Bay to Cape Cod Bay	45 - 150	Fine grained sediments, sand, or gravel
American plaice	adult	GOM, including estuaries from Passamaquoddy Bay to Saco Bay, ME and from Massachusetts Bay to Cape Cod Bay	45 - 175	Fine grained sediments, sand, or gravel
Atlantic cod	juvenile	GOM, GB, eastern portion of continental shelf off SNE, these estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay, Boston Harbor, Cape Cod Bay, Buzzards Bay	25 - 75	Cobble or gravel
Atlantic cod	adult	GOM, GB, eastern portion of continental shelf off SNE, these estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay, Boston Harbor, Cape Cod Bay, Buzzards Bay	10 - 150	Rocks, pebbles, or gravel
Atl halibut	juvenile	GOM and GB	20 - 60	Sand, gravel, or clay
Atl halibut	adult	GOM and GB	100 - 700	Sand, gravel, or clay
Barndoor skate	juvenile/ adult	Eastern GOM, GB, SNE, Mid-Atlantic Bight to Hudson Canyon	10-750, most < 150	Mud, gravel, and sand
Black sea bass	juvenile	GOM to Cape Hatteras, NC, including estuaries from Buzzards Bay to Long Island Sound, Gardiners Bay, Barnegat Bay to Chesapeake Bay, Tangier/ Pocomoke Sound, and James River	1 - 38	Rough bottom, shellfish/ eelgrass beds, manmade structures, offshore clam beds, and shell patches
Black sea bass	adult	GOM to Cape Hatteras, NC, including Buzzards Bay, Narragansett Bay, Gardiners Bay, Great South Bay, Barnegat Bay to Chesapeake Bay, and James River	20 - 50	Structured habitats (natural and manmade), sand and shell substrates preferred
Clearnose skate	juvenile/ adult	GOM, along continental shelf to Cape Hatteras, NC, including the estuaries from Hudson River/Raritan Bay south to the Chesapeake Bay mainstem	0 – 500, most < 111	Soft bottom and rocky or gravelly bottom
Haddock	juvenile	GB, GOM, and Mid-Atlantic south to Delaware Bay	35 - 100	Pebble and gravel
Haddock	adult	GB, eastern side of Nantucket Shoals, and throughout GOM	40 - 150	Broken ground, pebbles, smooth hard sand, and smooth areas between rocky patches
Little skate	juvenile/ adult	GB through Mid-Atlantic Bight to Cape Hatteras, NC; includes estuaries from Buzzards Bay south to mainstem Chesapeake Bay	0-137, most 73 - 91	Sandy or gravelly substrate or mud
Ocean pout	eggs	GOM, GB, SNE, and Mid-Atlantic south to Delaware Bay, including the following estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay and Cape Cod Bay	<50	Generally sheltered nests in hard bottom in holes or crevices
Ocean pout	juvenile	GOM, GB, SNE, Mid-Atlantic south to Delaware Bay and the following estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay, and Cape Cod Bay	< 50	Close proximity to hard bottom nesting areas
Ocean pout	adult	GOM, GB, SNE, Mid-Atlantic south to Delaware Bay and the following estuaries: Passamaquoddy Bay to Saco Bay, MA Bay, Boston Harbor, and Cape Cod Bay	< 80	Smooth bottom near rocks or algae
Pollock	adult	GOME, GB, SNE, and Mid-Atlantic south to New Jersey and the following estuaries: Passamaquoddy Bay, Damariscotta R., MA Bay, Cape Cod Bay, Long Island Sound	15 – 365	Hard bottom habitats including artificial reefs

Species	Life Stage	Geographic Area of EFH	Depth (meters)	Bottom Type
Red hake	juvenile	GOM, GB, continental shelf off SNE, and Mid-Atlantic south to Cape Hatteras, including the following estuaries: Passamaquoddy Bay to Saco Bay, Great Bay, MA Bay to Cape Cod Bay; Buzzards Bay to CT River, Hudson River, Raritan Bay, and Chesapeake Bay	< 100	Shell fragments, including areas with an abundance of live scallops
Red hake	adult	GOM, GB, continental shelf off SNE, Mid-Atlantic south to Cape Hatteras, these estuaries: Passamaquoddy Bay to Saco Bay, Great Bay, MA Bay to Cape Cod Bay; Buzzards Bay to CT River, Hudson River, Raritan Bay, Delaware Bay, and Chesapeake Bay	10 - 130	In sand and mud, in depressions
Redfish	juvenile	GOM, southern edge of GB	25 - 400	Silt, mud, or hard bottom
Redfish	adult	GOM, southern edge of GB	50 - 350	Silt, mud, or hard bottom
Rosette skate	juvenile/adult	Nantucket shoals and southern edge of GB to Cape Hatteras, NC	33-530, most 74-274	Soft substrate, including sand/mud bottoms
Scup	juvenile/adult	GOM to Cape Hatteras, NC, including the following estuaries: MA Bay, Cape Cod Bay to Long Island Sound, Gardiners Bay to Delaware inland bays, and Chesapeake Bay	0-38 for juv 2-185 for adult	Demersal waters north of Cape Hatteras and inshore estuaries (various substrate types)
Silver hake	juvenile	GOM, GB, continental shelf off SNE, Mid-Atlantic south to Cape Hatteras and the following estuaries: Passamaquoddy Bay to Casco Bay, ME, MA Bay to Cape Cod Bay	20 – 270	All substrate types
Summer Flounder	juvenile/adult	GOM to Florida – estuarine and over continental shelf to shelf break	0-250	Demersal/estuarine waters, varied substrates. Mostly inshore in summer and offshore in winter.
Smooth skate	juvenile/adult	Offshore banks of GOM	31–874, most 110-457	Soft mud (silt and clay), sand, broken shells, gravel and pebbles
Thorny skate	juvenile/adult	GOM and GB	18-2000, most 111-366	Sand, gravel, broken shell, pebbles, and soft mud
Tilefish	juvenile/adult	Outer continental shelf and slope from the U.S./Canadian boundary to the Virginia/North Carolina boundary	100 - 300	Burrows in clay (some may be semi-hardened into rock)
White hake	juvenile	GOM, southern edge of GB, SNE to Mid-Atlantic and the following estuaries: Passamaquoddy Bay, ME to Great Bay, NH, Massachusetts Bay to Cape Cod Bay	5 - 225	Seagrass beds, mud, or fine grained sand
Winter flounder	adult	GB, inshore areas of GOM, SNE, Mid- Atlantic south to Delaware Bay and the estuaries from Passamaquoddy Bay, ME to Chincoteague Bay, VA	1 - 100	Mud, sand, and gravel
Winter skate	juvenile/adult	Cape Cod Bay, GB, SNE shelf through Mid-Atlantic Bight to North Carolina; includes the estuaries from Buzzards Bay south to the Chesapeake Bay mainstem	0 - 371, most < 111	Sand and gravel or mud
Witch flounder	juvenile	GOM, outer continental shelf from GB south to Cape Hatteras	50 - 450 to 1500	Fine grained substrate
Witch flounder	adult	GOME, outer continental shelf from GB south to Chesapeake Bay	25 - 300	Fine grained substrate
Yellowtail flounder	adult	GB, GOM, SNE and Mid-Atlantic south to Delaware Bay and these estuaries: Sheepscot River and Casco Bay, ME, MA Bay to Cape Cod Bay	20 - 50	Sand or sand and mud

Appendix C

Tables reformatted for editorial purposes only. Complete Tables found at <http://www.greateratlantic.fisheries.noaa.gov/sustainable/species/clam/>.

Surfclam ITQ allocation holder report, 2014.

ALLOC_#	OWNER	OWNER2	RATIO	BUSHELS	NUM_TAGS	BEG_TAG	END_TAG
C624	INTERNATIONAL CLAM MANAGEMENT		0.133430588	453664	14177	1	14177
C583	Singer Island Ventures Inc		0.113054118	384384	12012	14178	26189
C529	First Pioneer Farm Credit, ACA	ATTN: JAMES M PAPAI	0.076829538	261216	8163	26190	34352
C520	WELLS FARGO BANK N.A.	ATTN: KAREN SEK	0.057204706	194496	6078	34353	40430
C632	TRISTATE CAPITAL BANK		0.054418824	185024	5782	40431	46212
C617	Cape Bank (for Daniel Cohen)		0.037242353	126624	3957	46213	50169
C609	Frank Corrado, Escrow Agent		0.032508235	110528	3454	50170	53623
C136	STEPHANIE DEE INC		0.030776471	104640	3270	53624	56893
C496	SUN NATIONAL BANK	(ITF TRUEX, MEYERS & TRUEX)	0.023099077	78528	2454	56894	59347
C455	Sturdy Savings Bank (OB)	ATTN: RICHARD PAYNE	0.022465882	76384	2387	59348	61734
C634	TRISTATE CAPITAL BANK		0.020517647	69760	2180	61735	63914
C074	KRISTY LEE CLAM CO	(JOE GARVILLA)	0.020485	69664	2177	63915	66091
C546	1ST PIONEER F.B.O. JM & MT		0.019689952	66944	2092	66092	68183
C188	BLOUNT SEAFOOD CORP.		0.018089412	61504	1922	68184	70105
C627	Farm Credit East, ACA	ATTN: TOM COSGROVE	0.016837647	57248	1789	70106	71894
C540	GEORGE TORGGLER		0.016462769	55968	1749	71895	73643
C528	LNA Inc.		0.013825882	47008	1469	73644	75112
C567	Sturdy Savings Bank (Cohen)		0.013016615	44256	1383	75113	76495
C146	WOODROW LAURENCE, INC.		0.012935	43968	1374	76496	77869
C026	GEORGE S CARMINES IN TRUST		0.010128	34432	1076	77870	78945
C651	STEVEN S. INC.		0.010117647	34400	1075	78946	80020
C547	1ST PIONEER F.B.O. LET		0.00985008	33504	1047	80021	81067
C031	ATLANTIC VESSELS OF DEL INC		0.009581176	32576	1018	81068	82085
C527	Atlantic Vessels Inc.		0.009408331	32000	1000	82086	83085
C004	ADRIATIC INC		0.009173	31200	975	83086	84060
C642	CCCFA		0.009157647	26336	823	84211	85033
C562	Sun National Bank	F.B.O. FL QUAHOGS	0.008733538	29696	928	85034	85961
C594	Daniel LaVecchia and	MICHAEL LAVECCHIA, PARTNERS	0.007811765	26560	830	85962	86791

ALLOC_#	OWNER	OWNER2	RATIO	BUSHEL	NUM_TAGS	BEG_TAG	END_TAG
C110	F/V OCEAN BIRD, INC		0.007651765	26016	813	87621	88433
C166	NANTUCKET SHOALS INC	ALBERT C. ROSINHA	0.007802	26528	829	86792	87620
C133	CITY OF SOUTHPORT INC		0.007242	24608	769	88434	89202
C128	ADRIAN WAYNE WATSON		0.007024	23872	746	89203	89948
C552	M J HOLDING CO., LLC		0.007022648	23872	746	89949	90694
C065	SARAH C CONWAY INC		0.006889412	23424	732	90695	91426
C559	Sturdy Savings Bank (P & E)		0.006587077	22400	700	91427	92126
C655	AUDUBON SAVINGS BANK ITF CAPE COD OF MARYLAND	ATTN: FRANK N CONSTANTINO, VP CCO	0.006409412	21792	681	92127	92807
C007	A & B COMMERCIAL FISH INC		0.006296471	21408	669	92808	93476
C046	B & D COMMERCIAL FISH INC		0.006004706	20416	638	93477	94114
C215	LEROY E. AND DOLORES TRUEX		0.00592	20128	629	94115	94743
C189	ANTHONY W. WATSON		0.005897846	20064	627	94744	95370
C099	MABEL KIM INC	C/O 20 FATHOM, LLC	0.005750588	19552	611	95371	95981
C151	PATTI B CLAM VENTURES INC		0.005628235	19136	598	95982	96579
C071	WYOMING BOAT CORPORATION		0.005345	18176	568	96580	97147
C080	LEPRECHAUN INC		0.005327059	18112	566	97148	97713
C454	LEROY E. TRUEX		0.005176471	17600	550	97714	98263
C584	Mabel Susan III Inc.		0.005157647	17536	548	98264	98811
C561	Roy Osmundsen		0.00496	16864	527	98812	99338
C033	Big Diamond Inc.		0.004818824	16384	512	99339	99850
C135	T & M CLAMMERS INC		0.004536471	15424	482	99851	100332
C201	ANTHONY E. & JOHN D. MARTIN		0.004356	14816	463	100333	100795
C134	STARLIGHT COMM FISH INC		0.004178824	14208	444	100796	101239
C127	GARY OSMUNDSEN		0.004037647	13728	429	101240	101668
C149	WANDO RIVER CORP		0.003806	12928	404	101669	102072
C250	SUN NATIONAL BANK (SJSC)	ATTN: EDWARD F. MADDEN	0.003743	12736	398	102073	102470
C515	DOLORES TRUEX		0.003717647	12640	395	102471	102865
C638	VONGOLE RAGAZZI, LLC		0.003350588	11392	356	102866	103221
C629	New Sea Rover Inc. ITF	BLOUNT SEAFOOD CORP.	0.003322353	11296	353	103222	103574
C079	LAUREN KIM INC		0.003077647	10464	327	103575	103901
C656	FARM CREDIT EAST, ACA		0.002870588	9760	305	103902	104206
C560	Mary Patricia Price		0.002861176	9728	304	104207	104510

ALLOC_#	OWNER	OWNER2	RATIO	BUSHEL	NUM_TAGS	BEG_TAG	END_TAG
C613	NSR Resource, LLC		0.002748235	9344	292	104511	104802
C229	KENNETH W. & SHARON L. BAILEY		0.002503529	8512	266	104803	105068
C008	F/V AMANDA TARA INC		0.002145882	7296	228	105069	105296
C232	PETER A. LAMONICA	C/O 20 FATHOM LLC	0.002088	7104	222	105297	105518
C075	SEAFISH INC/MARYLAND CORP		0.002066	7040	220	105519	105738
C628	Barbara Hall ITF Blount Seafoo		0.001797647	6112	191	105739	105929
C063	T & P VESSEL INC		0.001285	4384	137	105930	106066
C568	Daniel Cohen		0.001007059	3424	107	106067	106173
C637	MAUDE PLATT INC		0.000536471	1824	57	106174	106230
C011	D & L COMMERCIAL FISH INC		0.000489412	1664	52	106231	106282

Ocean quahog ITQ allocation holder report, 2014.

ALLOC_#	OWNER	OWNER2	RATIO	BUSHELS	NUM_TAGS	BEG_TAG	END_TAG
Q667	Bumble Bee Foods, LLC		0.217896014	1162048	36314	200001	236314
Q649	Singer Island Ventures Inc		0.144435027	770272	24071	236315	260385
Q664	TD BANK, NA	ATTN: DONALD COLLIGAN	0.074814005	398976	12468	260386	272853
Q553	SUN NATIONAL BANK	(ITF TRUEX, MEYERS & TRUEX)	0.069346334	369824	11557	272854	284410
Q665	WELLS FARGO BANK N.A.	ATTN: KAREN SEK	0.052104003	277856	8683	284411	293093
Q684	ITQ, LLC		0.048939059	260992	8156	293094	301249
Q112	WANDO RIVER CORP		0.043822	233696	7303	301250	308552
Q194	JOHN KELLEHER	C/O 20 FATHOM, LLC	0.039740484	211936	6623	308553	315175
Q021	ATLANTIC VESSELS OF DEL INC		0.034759	185376	5793	315176	320968
Q055	KRISTY LEE CLAM CO		0.033745	179968	5624	320969	326592
Q628	Sun National Bank	F.B.O. FL QUAHOGS	0.033507556	178688	5584	326593	332176
Q687	STURDY SAVINGS BANK (MCNULTY)		0.028099756	149856	4683	332177	336859
Q576	FOXY INVESTMENTS INC	C/O 20 FATHOM, LLC	0.024823551	132384	4137	336860	340996
Q636	Sun National Bank, F.B.O. LET	ATTN: MICHELE POWELCZYK	0.023374222	124640	3895	340997	344891
Q609	M J HOLDING CO., LLC		0.022442667	119680	3740	344892	348631
Q199	LEGEND INC.		0.019080001	101760	3180	348632	351811
Q596	Atlantic Vessels Inc.	P.O. BOX 178	0.01675628	89376	2793	351812	354604
Q206	SUN NATIONAL BANK (CIC)	ATTN: EDWARD F. MADDEN	0.012594	67168	2099	354605	356703
Q207	SUN NATIONAL BANK (OS)	ATTN: EDWARD F. MADDEN	0.012594	67168	2099	356704	358802
Q688	STURDY SAVINGS BANK (MCNULTY SR)		0.007926495	42272	1321	358803	360123
Q672	OSM Resources, LLC		0.007306	38976	1218	360124	361341
Q598	JOHN W. KELLEHER TRUST	C/O 20 FATHOM, LLC	0.006786	36192	1131	361342	362472
Q676	INTERNATIONAL CLAM MANAGEMENT		0.006402	34144	1067	362473	363539
Q109	WOODROW LAURENCE, INC.		0.003912	20864	652	363540	364191
Q128	F/V OCEAN VIEW INC		0.003792237	20224	632	364192	364823
Q554	SUN NATIONAL BANK	(ITF S.J.S.C.)	0.00362	19296	603	364824	365426
Q101	T & M CLAMMERS INC		0.001104069	5888	184	365427	365610
Q193	PETER A. LAMONICA	C/O 20 FATHOM LLC	0.000729	3872	121	365611	365731
Q107	JOHN & ANTHONY MARTIN		0.000725	3872	121	365732	365852
Q174	LEROY E. AND DOLORES TRUEX		0.000678042	3616	113	365853	365965
Q084	B&B SHELLFISHING INC		0.000672042	3584	112	365966	366077
Q685	NSR RESOURCES LLC		0.000552035	2944	92	366078	366169
Q016	GEORGE S CARMINES IN TRUST		0.000519	2752	86	366170	366255

ALLOC_#	OWNER	OWNER2	RATIO	BUSHEL	NUM_TAGS	BEG_TAG	END_TAG
Q003	ADRIATIC INC		0.000272	1440	45	366256	366300
Q144	CAPE COD PACKING OF DELAWARE		0.000266	1408	44	366301	366344
Q669	KENNETH W BAILEY		0.000246	1312	41	366345	366385
Q658	D.C. Air Marine Division Inc.		0.000072	384	12	366386	366397
Q056	SEAFISH INC/MARYLAND CORP		0.0000543	288	9	366398	366406
Q044	Heidi & Kristi , Inc		0.0000302	160	5	366407	366411
Q104	STEVEN S INC		0.0000121	64	2	366412	366413
Q143	RAM ISLAND SHELLFISH INC		0.0000121	64	2	366414	366415