

# DRAFT

## Framework 27 to the Scallop FMP

Including a Draft Environmental Assessment (EA), an Initial Regulatory Flexibility Analysis and Stock Assessment and Fishery Evaluation (SAFE Report)

Prepared by the New England Fishery Management Council, in consultation with the National Marine Fisheries Service and the Mid-Atlantic Fishery Management Council

New England Fishery Management Council  
50 Water Street, Mill Number 2  
Newburyport, MA 01950

National Marine Fisheries Service  
Greater Atlantic Regional Fisheries Office  
55 Great Republic Drive  
Gloucester, MA 01930

*Initial Council Meeting: June 16-18, 2015*  
*Final Council Meeting: December 1-3, 2015*  
***Submission of Decision Document:***  
*Submission of Preliminary EA:*  
*Submission of Final EA:*

*Intentionally Blank*

## Table of Contents

1.0	Background and purpose.....	5
1.1	Background.....	5
1.2	Purpose and need .....	5
1.3	Summary of Scallop Fishery management plan .....	6
1.3.1	Summary of past actions.....	6
1.3.2	Summary of the scallop area rotation program.....	9
1.4	Summary of scallop fishery specifications and various annual catch limits .....	10
1.4.1	Default measures for FY2016 approved in previous scallop action (Framework 26) 12	
2.0	Management Alternatives Under Consideration.....	15
2.1	OVERFISHING LIMIT AND ANNUAL BIOLOGICAL CATCH .....	15
2.1.1	Alternative 1 - No Action for OFL and ABC .....	15
2.1.2	Alternative 2 - Updated OFL and ABC for FY2016 and FY2017 (default).....	15
2.2	Fishery specifications.....	17
2.2.1	Overall fishery allocations .....	17
2.2.1.1	Alternative 1 (No Action – Default measures from Framework 26).....	17
2.2.1.2	Alternative 2 – Basic Run (Specifications based on basic run using fishing mortality target principles in the FMP with no modifications to scallop access area boundaries).....	17
2.2.1.3	Alternative 3 – CA2 extension (consider closure of open area south of Closed Area II) 18	
2.2.1.4	Alternative 4 – Extend closure of ETA closed (.....	20
2.2.1.5	Modification to Nantucket Lightship Access Area ( <i>Preferred Alternative</i> ).....	24
2.2.2	Allocation of LAGC IFQ trips in access areas .....	26
2.2.2.1	Option 1 – No Action – No access area trips allocated for LAGC IFQ vessels26	
2.2.2.2	Option 2 - Allocate fleetwide trips equivalent to 5.5% of catch per access area open to the fishery.....	26
2.2.3	Additional measures to reduce impacts on small scallops.....	27
2.3	ALLOCATION METHOD FOR MID-ATLANTIC ACCESS AREA TRIPS in 2015 only 27	
2.3.1	No Action (lottery allocation).....	27
2.3.2	Flexible allocation for Mid-Atlantic access area trips .....	27
3.0	Considered and rejected alternatives .....	27
4.0	affected environment .....	27

## **Appendices**

### **I – Economic Model**

## **1.0 BACKGROUND AND PURPOSE**

### **1.1 BACKGROUND**

This framework to the Scallop Fishery Management Plan (FMP) sets fishery specifications for fishing year (FY) 2016 and default measures for FY 2017. The New England Fishery Management (Council) decided to develop a one-year action only, including default measures for Year 2 only (FY2017). This decision was made to set specifications for one year since another action, the EFH Omnibus Amendment, is considering changes to closed areas that may or may not have impacts on scallop fishery specifications in the future.

The list of measures required to be in a framework has increased over the years to include overall annual catch limits, specific allocations for both limited access (LA) and limited access general category (LAGC) vessels. Below is a list of the measures required as part of the scallop fishery specifications:

- Overfishing Limit (OFL) and Acceptable Biological Catch (ABC), which is approved by the SSC;
- Annual Catch Limits (ACL) (for both the limited access and limited access general category fisheries, and Annual Catch Target (ACT) for the LA fishery;
- Allocations for limited access vessels include DAS allocations, access area allocations with associated possession limits;
- Allocations for limited access general category vessels include an overall IFQ for both permit types, as well as a fleetwide, area-specific maximum number of access area trips available for the general category fishery;
- NGOM hard-TAC;
- Incidental catch target-TAC; and
- Set-aside of scallop catch for the industry funded observer program and research set-aside program.

The Council did not include any other measures for consideration; this action includes fishery specifications only.

### **1.2 PURPOSE AND NEED**

The need for this action is to achieve the objectives of the Atlantic Sea Scallop FMP to prevent overfishing and improve yield-per-recruit from the fishery. The primary purpose for this action is to set specifications including: OFL, ABC, scallop fishery ACLs and ACTs including associated set-asides, day-at-sea (DAS) allocations, general category fishery allocations, and area rotation schedule and allocations for the 2016 fishing year, as well as default measures for FY2017 that are expected to be replaced by a subsequent action.

**Table 1 – Summary of the purpose and need for measures developed in Framework 27 including section number with specific alternatives**

Need	Purpose	Section
To achieve the objectives of the Scallop FMP to prevent overfishing and improve yield-per-recruit from the fishery	To set specifications for FY2015 and FY2016 (default): OFL, ABC, ACLs, LA ACT, DAS, general category allocations, and area rotation schedule and related allocations.	2.2

### 1.3 SUMMARY OF SCALLOP FISHERY MANAGEMENT PLAN

#### 1.3.1 Summary of past actions

The Atlantic Sea Scallop FMP management unit consists of the sea scallop *Placopecten magellanicus* (Gmelin) resource throughout its range in waters under the jurisdiction of the United States. This includes all populations of sea scallops from the shoreline to the outer boundary of the Exclusive Economic Zone (EEZ). While fishing for sea scallops within state waters is not subject to regulation under the FMP except for vessels that hold a federal permit when fishing in state waters, the scallops in state waters are included in the overall management unit. The principal resource areas are the Northeast Peak of Georges Bank, westward to the Great South Channel, and southward along the continental shelf of the Mid-Atlantic.

The Council established the Scallop FMP in 1982. A number of Amendments and Framework Adjustments have been implemented since that time to adjust the original plan, and some Amendments and Framework Adjustments in other plans have impacted the fishery. This section will briefly summarize the major actions that have been taken to shape the current scallop resource and fishery, but a complete list of the measures as well as the actions themselves are available on the NEFMC website (<http://www.nefmc.org/scallops/index.html>).

Amendment 4 was implemented in 1994 and introduced major changes in scallop management, including a limited access program to stop the influx of new vessels. Qualifying vessels were assigned different day-at-sea (DAS) limits according to which permit category they qualified for: full-time, part-time or occasional. Some of the more notable measures included new gear regulations to improve size selection and reduce bycatch, a vessel monitoring system to track a vessel’s fishing effort, and an open access general category scallop permit was created for vessels that did not qualify for a limited access permit. Also in 1994, Amendment 5 to the Northeast Multispecies FMP closed large areas on Georges Bank to scallop fishing over concerns of finfish bycatch and disruption of spawning aggregations (Closed Area I, Closed Area II, and the Nantucket Lightship Area - See Figure 1).

In 1998, the Council developed Amendment 7 to the Scallop FMP, which was needed to change the overfishing definition, the day-at-sea schedule, and measures to meet new lower mortality targets to comply with new requirement under the Magnuson-Stevens Act. In addition, Amendment 7 established two new scallop closed areas (Hudson Canyon and VA/NC Areas) in the Mid-Atlantic to protect concentrations of small scallops until they reached a larger size.

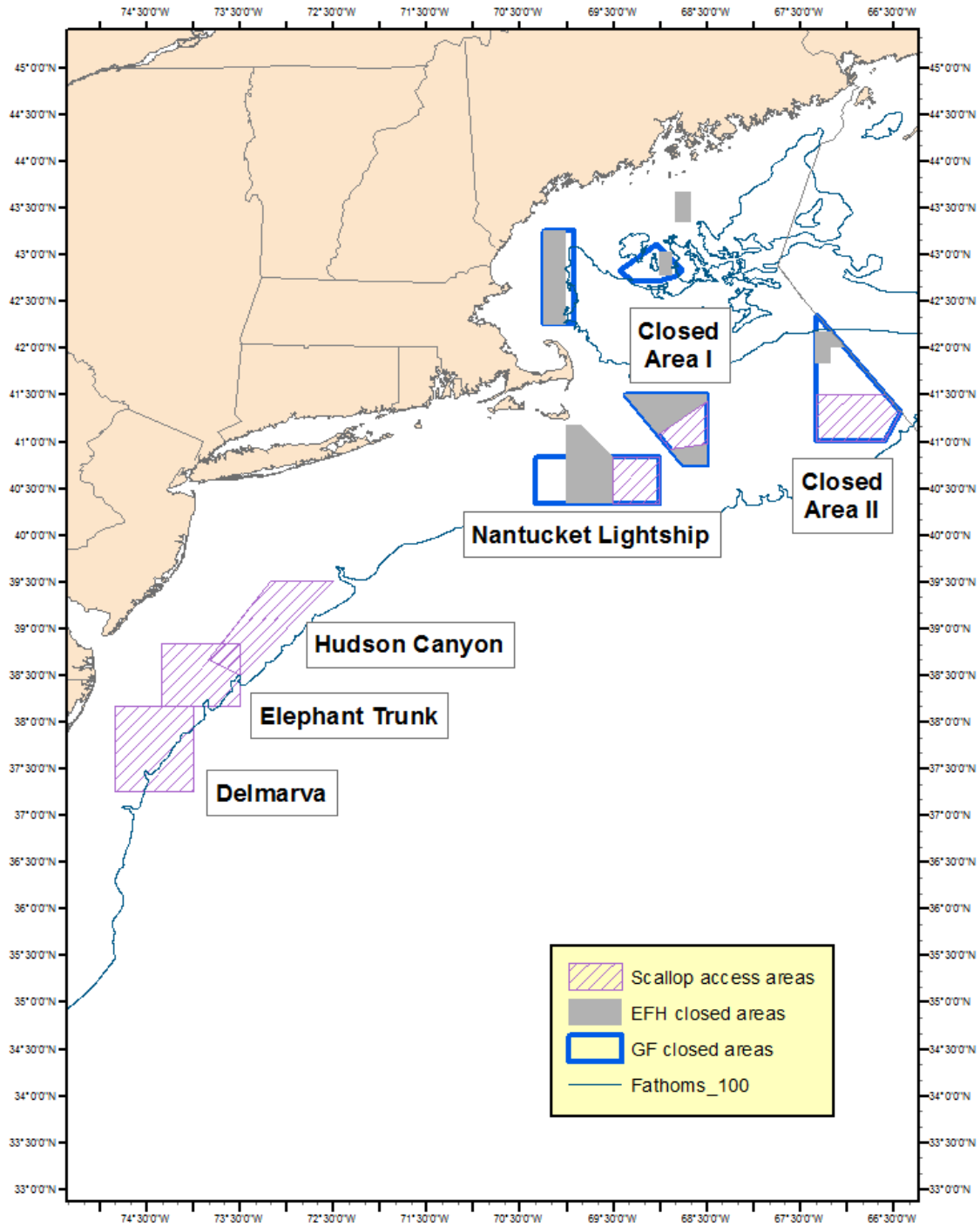
In 1999, Framework Adjustment 11 to the Scallop FMP allowed the first scallop fishing within portions of the Georges Bank groundfish closed areas since 1994 after resource surveys and experimental fishing activities had identified areas where scallop biomass was very high due to no fishing in the intervening years. This successful “experiment” with closing an area and reopening it for controlled scallop fishing further motivated the Council to shift overall scallop management to an area rotational system that would close areas and reopen them several years later to prevent overfishing and optimize yield.

In 2004, Amendment 10 to the Scallop FMP formally introduced rotational area management and changed the way that the FMP allocates fishing effort for limited access scallop vessels. Instead of allocating an annual pool of DAS for limited vessels to fish in any area, vessels had to use a portion of their total DAS allocation in the controlled access areas defined by the plan, or exchange them with another vessel to fish in a different controlled access area. The amendment also adopted several alternatives to minimize impacts on EFH, including designating EFH closed areas, which included portions of the groundfish mortality closed areas. See Section 1.3.2 below for a more detailed description of the rotational area management program implemented by Amendment 10.

As the scallop resource rebuilt under area rotation biomass increased inshore and fishing pressure increased by open access general category vessels starting in 2001. Landings went from an average of about 200,000 pounds from 1994-2000 to over one million pounds consistently from 2001-2003 and 3-7 million pounds each year from 2004-2006 (NEFMC, 2007). In June 2007 the Council approved Amendment 11 to the Scallop FMP and it was effective on June 1, 2008. The main objective of the action was to control capacity and mortality in the general category scallop fishery. Amendment 11 implemented a limited entry program for the general category fishery where each qualifying vessel received an individual allocation in pounds of scallop meat with a possession limit of 400 pounds. The fleet of qualifying vessels receives a total allocation of 5% of the total projected scallop catch each fishing year. This action also established separate limited entry programs for general category fishing in the Northern Gulf of Maine and an incidental catch permit category (up to 40 pounds of scallop meat per trip while fishing for other species).

More recently Amendment 15 to the Scallop FMP was implemented in 2011. This action brought the FMP in compliance with new requirements of the re-authorized MSA (namely ACLs and AMs) as well as a handful of other measures to improve the overall effectiveness of the FMP. A more detailed summary of the various annual catch limits and how fishery specifications are set in this fishery are described in Section 1.4.

**Figure 1 – Past and present scallop management areas (purple hatched areas) with other reference areas**





### 1.3.2 Summary of the scallop area rotation program

Rotational area management is the cornerstone of scallop fisheries management. There are four types of areas in this system: 1) “open areas” where scallop fishing can occur using DAS or IFQ; 2) areas completely closed to scallop fishing year-round to reduce impacts on EFH and/or groundfish mortality; 3) areas temporarily closed to scallop vessels to protect small scallops until a future date; and 4) areas open to very restricted levels of scallop fishing called “access areas”. When scallop vessels are fishing in these areas they are limited in terms of total removal and sometimes season.

Amendment 10 introduced area rotation: areas that contain beds of small scallops are closed before the scallops experience fishing mortality, then the areas re-open when scallops are larger, producing more yield-per-recruit. The details of which areas should close, for how long and at what level they should be fished were described and analyzed in Amendment 10. Except for the access areas within the groundfish closed areas on Georges Bank, all other scallop rotational areas should have flexible boundaries. Amendment 10 included a detailed set of criteria or guidelines that would be applied for closing and re-opening areas. Framework adjustments would then be used to actually implement the closures and allocate access in re-opened areas.

The general management structure for area rotation management is described in Table 2. In theory, an area would close when the expected increase in exploitable biomass in the absence of fishing mortality exceeds 30% per year, and re-open to fishing when the annual increase in the absence of fishing mortality is less than 15% per year. Area rotation allows for differences in fishing mortality targets to catch scallops at higher than normal rates by using a time averaged fishing mortality so the average for an area since the beginning of the last closure is equal to the resource-wide fishing mortality target.

Figure 1 shows the boundaries of current and past scallop access areas (purple hatched areas) on Georges Bank and in the Mid-Atlantic. Areas that are closed to the scallop fishery are indicated as well: groundfish mortality closed areas (hollow) and EFH closed areas (hatched). For the most part some of these areas are closed to the fishery if small scallops are present, some areas are open as access areas with a controlled level of fishing, and some may be “open areas” that may be fished using DAS, not access area trips. Each year limited access vessels are allocated a set number of trips with possession limits to fish in specific access areas. And general category vessels are awarded a fleetwide maximum of trips that can be taken per area.

The NEFMC recently approved the EFH Omnibus Amendment, an action that considered modifications to the EFH and groundfish mortality closed areas in this region. Based on the outcome of that action the current boundaries of these closed areas may change. Therefore, future scallop access areas may also be different, and current restrictions to fish in EFH closed areas may be different as well. Since this action is primarily limited to FY2016, and those potential modifications, if approved, would not be implemented until mid-2016 under the best case scenario, Framework 27 is only considering specifications based on the current areas available to the scallop fishery. It is considered predecisional to consider fishery access in areas that are still closed.

**Table 2- General management structure for area rotation management as implemented by Amendment 10**

<b>Area type</b>	<b>Criteria for rotation area management consideration</b>	<b>General management rules</b>	<b>Who may fish</b>
Closed rotation	Rate of biomass growth exceeds 30% per year if closed.	No scallop fishing allowed Scallop limited access and general category vessels may transit closed rotation areas provided fishing gear is properly stowed. Scallop bycatch must be returned intact to the water in the general location of capture.	Any vessel may fish with gear other than a scallop dredge or scallop trawl Zero scallop possession limit
Re-opened controlled access	A previously closed rotation area where the rate of biomass growth is less than 15% per year if closure continues.  Status expires when time averaged mortality increases to average the resource-wide target, i.e. as defined by the Council by setting the annual mortality targets for a re-opened area.	Fishing mortality target set by framework adjustment subject to guidelines determined by time averaging since the beginning of the most recent closure. Maximum number of limited access trips will be determined from permit activity, scallop possession limits, and TACs associated with the time-average annual fishing mortality target. Transfers of scallops at sea would be prohibited	Limited access vessels may fish for scallops only on authorized trips. Vessels with general category permits will be allowed to target scallops or retain scallop incidental catch, with a 400 pounds scallop possession limit in accordance with general category rules.
Open	Scallop resource does not meet criteria to be classified as a closed rotation or re-opened controlled access area	Limited access vessels may target scallops on an open area day-at-sea General category vessels may target sea scallops with dredges or trawls under existing rules. Transfers of scallops at sea would be prohibited	All vessels may fish for scallops and other species under applicable rules.

#### **1.4 SUMMARY OF SCALLOP FISHERY SPECIFICATIONS AND VARIOUS ANNUAL CATCH LIMITS**

Amendment 15 established a method for accounting for all catch in the scallop fishery and included designations of Overfishing Limit (OFL), ABC, ACLs, and Annual Catch Targets (ACT) for the scallop fishery, as well as scallop catch for the Northern Gulf of Maine (NGOM), incidental, and state waters catch components of the scallop fishery. The scallop fishery assessment will determine the exploitable biomass, including an assessment of discard and incidental mortality (mortality of scallops resulting from interaction, but not capture, in the scallop fishery).

Based on the assessment, OFL is specified as the level of landings, and associated F that, above which, overfishing is occurring. OFL will account for landings of scallops in state waters by vessels without Federal scallop permits. The previous assessment of the scallop fishery (SAW 50, 2010) determined that the F associated with the OFL is 0.38. The updated assessment, SARC59, approved a higher OFL equivalent to 0.48. To account for scientific uncertainty, ABC is set at a level with an associated F that has a 25-percent probability of exceeding F associated with OFL (i.e., a 75-percent probability of being below the F associated with OFL).

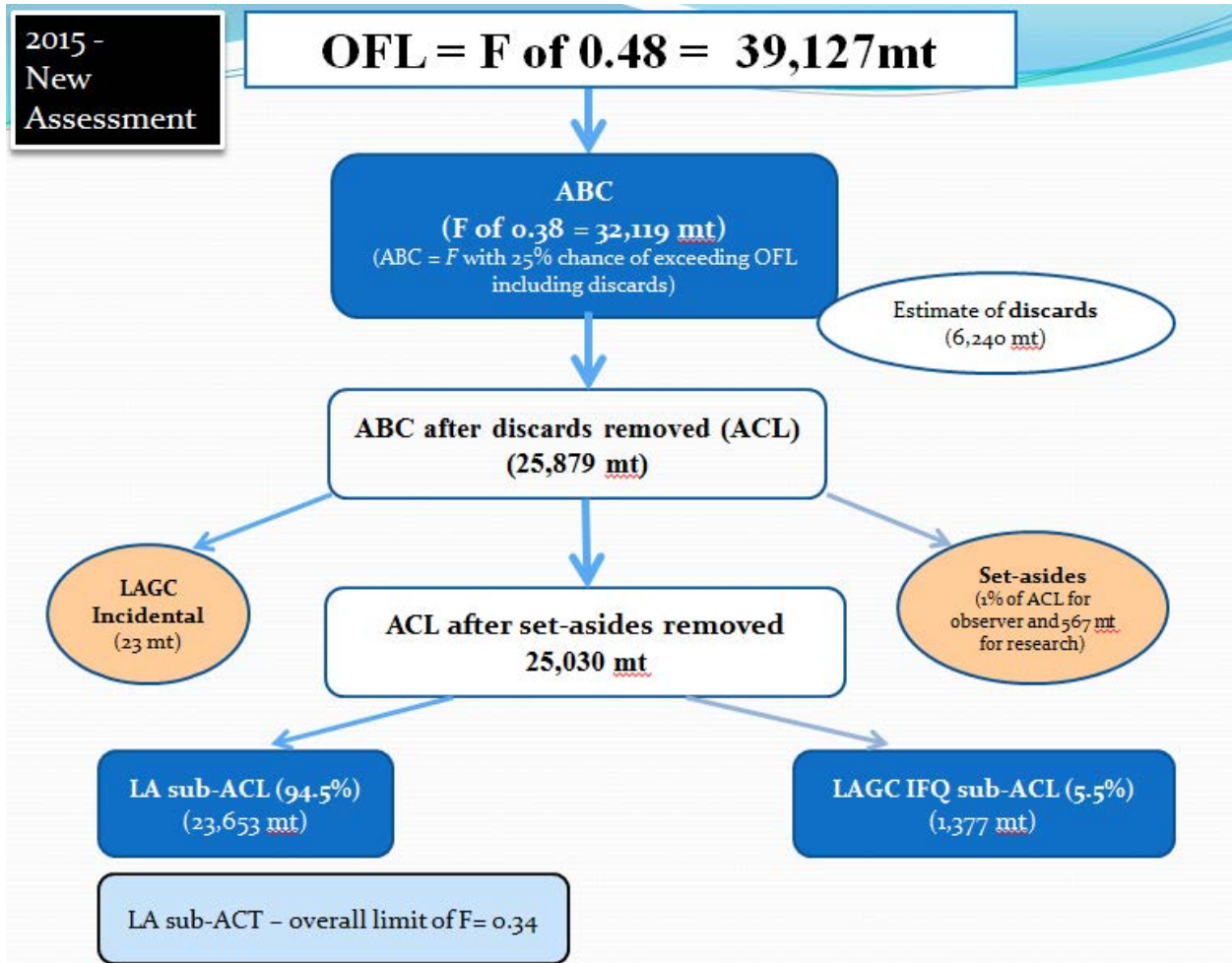
In the Scallop FMP ACL is equal to ABC. SAW 50 determined that the F associated with the ABC/ACL is 0.32. The updated assessment, SARC 59, approved a higher OFL; therefore, the F

associated with ABC/ACL is higher as well,  $F = 0.38$ . Set-asides for observer and RSA are removed from the ABC (1 percent of the ABC/ACL and 1.25 M lb (567 mt) respectively). After those set-asides are removed, the remaining available catch is divided between the LA and LAGC fisheries into two sub-ACLs; 94.5% for the LA fishery sub-ACL, and 5.5% for the LAGC fishery sub-ACL. Figure 2 summarizes how the various ACL terms are related in the Scallop FMP.

To account for management uncertainty, Amendment 15 established ACTs for each fleet. For the LA fleet, the ACT will have an associated  $F$  that has a 25-percent chance of exceeding ABC. The major sources of management uncertainty in the LA fishery are carryover provisions including the 10 DAS carryover provision, and the ability to fish unused access area allocation within the first 60 days of the following fishing year. The  $F$  associated with this ACT for the LA fishery is currently estimated to be 0.28. The fishery specifications allocated to the fishery may be set at an  $F$  rate lower than this level based on available resource, but fishery specifications may not exceed this level. For example, in FY2014 several specification alternatives were considered that had various estimated of overall  $F$  ranging from 0.10 to 0.21. Again, because the updated assessment, SARC59 approved a higher OFL, the  $F$  associated with ACT is higher as well. The new ACT will be based on applying an overall fishing mortality of 0.34. For the LAGC fleet, the ACT will be set equal to the LAGC fleet's sub-ACL, since that fishery is quota managed and has less management uncertainty.

Finally, catch from the NGOM is established at the ABC/ACL level, but is not subtracted from ABC/ACL. Since the NGOM portion of the scallop fishery is not part of the scallop assessment, the catch will be added and specified as a separate Total Allowable Catch (TAC), in addition to ABC/ACL.

Figure 2 – Example of how catch limits are set in the Scallop FMP using FY2015, with updated reference points from the recent benchmark assessment (SARC59)



#### 1.4.1 Default measures for FY2016 approved in previous scallop action (Framework 26)

The Council routinely sets default measures for the fishing year following the intended length of an action in the event that subsequent actions are not in place at the start of the following fishing year. For example, the scallop fishing year starts on March 1, but complete management measures are not usually in place until May. This lag is primarily due to the fact that scallop specifications are set using the most up to date survey data collected the summer before the start of the fishing year. The results are typically available in August, a new ABC is reviewed by the SSC in September, and the PDT develops and analyzes specification alternatives in early fall before final Council action at the November meeting. Staff generally completes the submission package by the end of the year and the action is reviewed and implemented by NMFS typically in May.

In the past, measures have been in place on March 1 that are inferior to measures proposed for implementation in a subsequent action using more updated information. For example, ultimate

catch levels may be higher or lower depending on updated survey results, some areas with access area trips assigned may not be able to support that level of effort, or small scallops may show up in a new survey suggesting the area should be closed to protect new recruitment. In some years in order to minimize the potentially negative impacts of having measures in place on March 1 that ultimately need to be changed, the Council has only allocated DAS to the limited access fishery; no access area trips were assigned to limited access vessels or general category vessels.

The Council has the authority to set more measures as default, but for the most part has mostly only allocated DAS. However, in FW26 the Council decided to also allocate one access area trip in the Mid-Atlantic access area effective on April 1. It was relatively certain that some level of access would be available in the MA AA in 2016 when measures were developed in 2014; therefore, a limited level of access was included in default measures. April 1 was stipulated to give scallops one additional month of growth potential before the new allocations. In addition, vessels would be able to fish FY 2015 compensation trips in the access areas that were open in FY 2015 for the first 60 days of FY2016 (i.e., March 1 through April 29, 2015). This carryover provision has been in place for many years.

The default measures for 2016 also included the required ABC and ACL values, but they will likely be replaced by this action. The table below summarizes the default values that will be effective on March 1, 2016 until FW27 is implemented to replace them. Vessels with a LAGC IFQ permit will receive an allocation based on the contribution factor assuming the total LAGC IFQ is 3.7 million pounds. Their allocations for FY2016 may ultimately change based on the final sub-ACL approved in FW27. LAGC IFQ vessels are responsible to payback any overage the following year if the ultimate IFQ for FY2016 is lower than the allocation under the default sub-ACL.

If FW27 is not adopted these default allocations would remain in place for all of FY2016 and beyond until replaced by a subsequent action.

**Table 3 - ACL related values and allocations for 2016 (default measures approved in FW26)**

	2016 (default)	
	MT	lbs
OFL	45,456	100,213,343
ABC/ACL (discards removed)	31,807	70,122,444
incidental	23	50,045
RSA	567	1,250,021
OBS	318	701,224
ACL for fishery	30,899	68,121,153
LA ACL	29,200	64,374,490
LAGC ACL	1,699	3,746,663
LAGC IFQ	1,545	3,406,058
LA with LAGC IFQ	154	340,606

*\* 2016 measures are default and expected to be adjusted based on FW27*

**Table 4 – Summary of FY2016 default allocations for LA vessels (approved in FW26)**

	LA FT	LA PT	LA Occasional
<b>2015</b>	26	10.4	2

*\* Default DAS is 75% of the total DAS projected for FY2016 (34DAS)*

## 2.0 MANAGEMENT ALTERNATIVES UNDER CONSIDERATION

### 2.1 OVERFISHING LIMIT AND ANNUAL BIOLOGICAL CATCH

The MSA was reauthorized in 2007. Section 104(a) (10) of the Act established new requirements to end and prevent overfishing, including annual catch limits (ACLs) and accountability measures (AMs). Section 303(a)(15) was added to the MSA to read as follows: “establish a mechanism for specifying annual catch limits in the plan (including a multiyear plan), implementing regulations, or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability.” The Council adopted Scallop Amendment 15 to comply with these new ACL requirements, and that action was implemented in 2011.

Acceptable Biological Catch (ABC) is defined as the maximum catch that is recommended for harvest, consistent with meeting the biological objectives of the management plan. The determination of ABC will consider scientific uncertainty and the Council may not exceed the fishing level recommendations of its Science and Statistical Committee (SSC) in setting ACLs (Section 302(h)(6)). The MSA enhanced the role of the SSCs, mandating that they shall provide ongoing scientific advice for fishery management decisions, including recommendations for acceptable biological catch (MSA 302(g)(1)(B)). This requirement for an SSC recommendation for ABC was effective in January 2007.

#### 2.1.1 Alternative 1 - No Action for OFL and ABC

Under “No Action”, the overall OFL and ABC would be equivalent to default 2016 values adopted in Framework 25 (Table 5). These would remain in place until a subsequent action replaced them. These values were selected based on the same control rules: 1) OFL is equivalent to the catch associated with an overall fishing mortality rate equivalent to  $F_{msy}$ ; and 2) ABC is set at the fishing mortality rate with a 25% chance of exceeding OFL where risk is evaluated in terms of the probability of overfishing compared to the fraction loss to yield. These values include estimated discard mortality. Therefore, when the fishery specifications are set based on these limits, the estimate of discard mortality is removed first and allocations are based on the remaining ABC available (Table 5, column to the far right).

**Table 5 – Summary of OFL and ABC FY2015 (default) values approved by the SSC in Framework 24 (in metric tons)**

	OFL (including discards at OFL)	ABC (including discards)	Discards (at ABC)	ABC available to fishery (after discards removed)
2016 (default)	45,456			31,807

#### 2.1.2 Alternative 2 - Updated OFL and ABC for FY2016 and FY2017 (default)

The PDT met on October 7 to finalize recommendations for the SSC to consider.

*To be completed later. Preliminary estimates on the next page*

Performance of OFL and ABC to date

Year		Allowance	Actual	Difference	%
2011	OFL	32,387	26,798	5,589	82.7%
	ABC	27,269	26,795	474	98.3%
	Total ACL	26,406	26,121	286	98.9%
2012	OFL	34,382	26,140	8,242	76.0%
	ABC	28,961	26,064	2,897	90.0%
	Total ACL	28,081	25,387	2,695	90.4%
2013	OFL	31,555	18,224	13,331	57.8%
	ABC	21,004	18,126	2,878	86.3%
	Total ACL	20,204	17,378	2,827	86.0%
2014 (preliminary)	OFL	30,419	14,473	15,946	47.6%
	ABC	20,782	14,448	6,334	69.5%
	Total ACL	19,984	13,796	6,188	69.0%

Comparison of recent and proposed OFL and ABC

Year		Allowance
2015	OFL	38,061
	ABC	25,352
	Total ACL	24,509
2016 (default)	OFL	45,456
	ABC	31,807
	Total ACL	30,899
2016	OFL	68,418
	ABC	37,852
	Total ACL	
2017 (default)	OFL	99,688
	ABC	62,929
	Total ACL	

**PDT – ???**

What is our recommendation for OFL and ABC for 2016 and 2017 default?

We discussed that 2017 may be overestimated because model does not take density dependence into account.

Do we want to adjust 2017 default recommendation?

Same as 2016?

2017 will be replaced next year.



## **2.2 FISHERY SPECIFICATIONS (STILL UNDER DEVELOPMENT)**

Specifications for the limited access fishery include DAS and access area trips as limited by the ACT for the limited access fishery and what areas are open to the fishery.

Specifications for the LAGC fishery include an overall IFQ allocation for vessels with LAGC IFQ permits, a hard TAC for vessels with a LAGC NGOM permit, and a target TAC for vessels with a LAGC incidental catch permit (40 pound permit).

### **2.2.1 Overall fishery allocations**

#### **2.2.1.1 Alternative 1 - No Action (Default measures from Framework 26)**

Under No Action, the sub-ACL for the LA fishery would be 29,200 mt (64,374,490 lb). The specifications would include default measures approved in Framework 26 for FY2016 which are 75% of the projected DAS for that year. For full-time vessels that is equivalent to 26 DAS (75% of 34 DAS) and 10.4 DAS for part-time vessels. LA vessels would have some access in the MA access area, the equivalent of one 17,000 pound trip for FT vessels. However, the area would not open for new 2016 allocations until April 1, 2016. These measures would remain in place until replaced by another action.

Under FY2016 default measures the LAGC IFQ allocation is 1,699 mt for vessels with a LAGC IFQ permit as well as LA vessels with a LAGC IFQ permit. This allocation is equivalent to 5.5% of the ACL projected for FY2016 from FW26. LAGC IFQ vessels would also have access in the MA AA on April 1, 2016 under default measures, equal to 361,445 pounds or 602 trips (6.5% of the projected TAC for MA AA in 2016 under FW26).

On March 1, 2016 LAGC vessels will be allocated an individual quota based on default measures that will likely be different than the allocation LAGC IFQ vessels will ultimately be allocated under FW27. Similar to recent years, LAGC vessels will need to be aware that final allocations for FY2016 are likely to be different than allocations received on March 1, 2016 before FW27 is implemented.

No action for the NGOM hard TAC is 70,000 pounds and the target TAC for vessels with a LAGC Incidental permit is 50,000 pounds.

#### **2.2.1.2 Alternative 2 – Basic Run (Specifications based on basic run using fishing mortality target principles in the FMP with no modifications to scallop access area boundaries)**

This is the basic alternative the PDT generally begins with when identifying possible specification alternatives. Target catches in this fishery are driven by three principles developed as part of the “hybrid” overfishing definition approved in Amendment 15. The three main principles that are used in this FMP to set target catches for the fishery are:

- 1) fishing mortality in open areas cannot exceed  $F_{msy}$ ;
- 2) a spatially averaged fishing mortality target is limited to the value considered to the ACT for the fishery for all areas combined (open and closed areas); and
- 3) fishing mortality targets for access areas are based on a time-averaged principle, higher  $F$  in some years followed by closures or limited fishing levels in other years.

The PDT is still working on the specification alternatives, but in general this alternative includes more DAS than FY2015, higher LAGC IFQ and three access area trips per FT LA vessel.

*To be completed later.*

The maximum that the annual catch target can be set at is the catch associated with applying a fishing mortality rate of 0.34 overall, 0.04 below ABC/ACL, currently estimated at 0.38, to account for management uncertainty. But in reality some areas are closed and not available to the scallop fishery. Therefore, in practice, the projected catch associated with ACT cannot exceed 0.34 overall, but target catches are actually driven by the three overall principles developed as part of the “hybrid” overfishing definition approved in Amendment 15 (F in open areas cannot exceed Fmsy; F in access areas set annually at a level that results in F no higher than Fmsy when averaged over time; and the combined target F in open, access, and closed areas cannot exceed F associated with ACT, currently 0.34). In a given year, one of these three principles will be the constraining element that dictates what the ultimate target F is for a particular alternative, in many cases below ACT (0.34). For example, for FY2016 under this alternative, the constraining factor for setting projected catches is the open area max of 0.48. The overall estimate of F combined from all areas open and closed under this alternative is ???.

### **2.2.1.3 Alternative 3 – CA2 extension (consider closure of open area south of Closed Area II)**

The overall intent of this alternative is to reduce discard and incidental mortality on small scallops observed in this area. A large year class of scallops was observed in this area in 2014 and 2015. These scallops will be susceptible to impacts from fishing gear in 2016; therefore, closing the area is expected to maximize yield per recruit for scallops in this area if access is delayed.

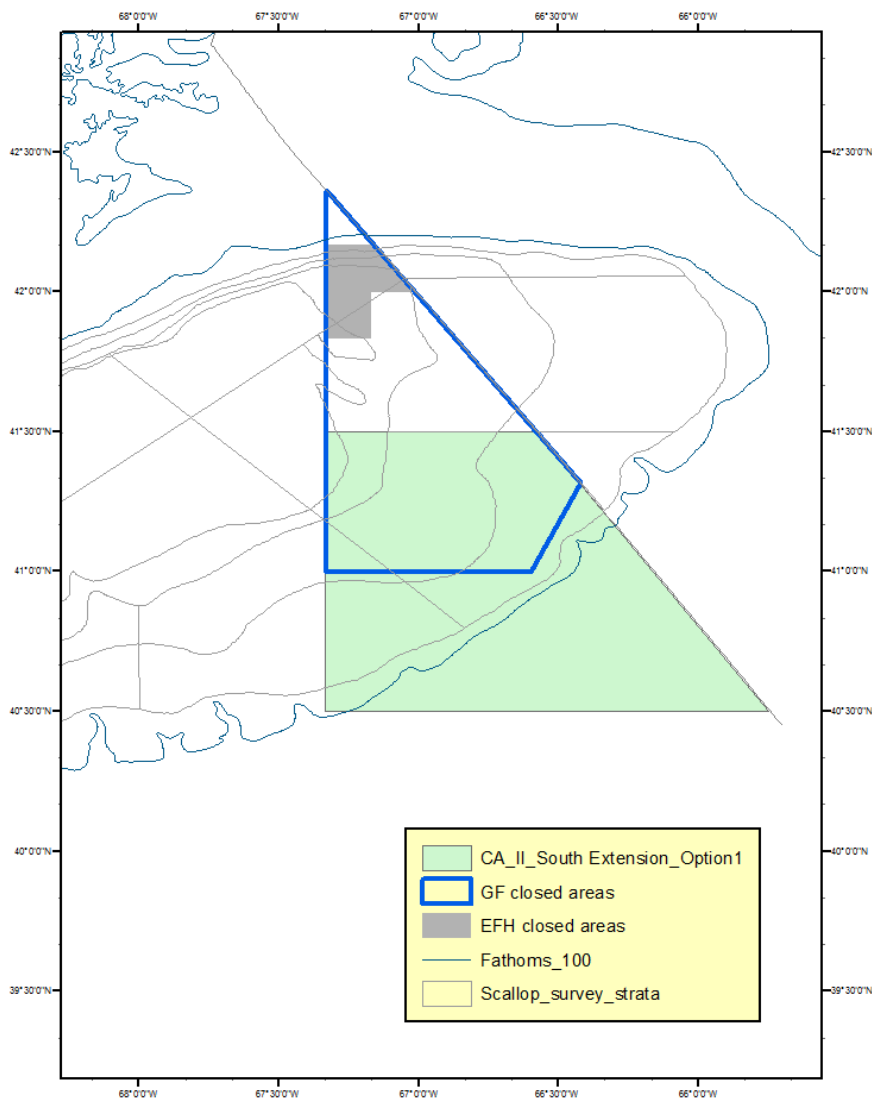
The size of this extension area is 3,178 square nautical miles, larger than the status quo scallop access area within CA2 (1,025 square nautical miles). The boundaries for this option are in Table 6.

Vessels are currently prohibited from transiting through the scallop access area within Closed Area II. This is the only scallop access area where transiting is prohibited, primarily because it is far offshore and abuts the US-Canada maritime border. Therefore, the need to transit through the area to get to port from primary scallop fishing grounds is minimal. When the Enforcement Committee reviewed this alternative in a previous action a consensus statement was drafted related to transit rule recommendations, “allowing transiting through a closed area is difficult to enforce.” Therefore, it was clarified that if this area is closed, the current prohibition for transiting should apply in the expanded area as well since it is a relatively low transit area and is not located between active fishing grounds and fishing ports.

**Table 6 – Boundaries of Closed Area II scallop access area extension (Figure 3)**

	<b>Latitude</b>	<b>Longitude</b>
<b>Point 1</b>	41 30' N	67 20' W
<b>Point 2</b>	41 30' N	Intersection of 41 30' N and the US-Canada Maritime Boundary, approx. 66 34.73' W
<b>Point 3</b>	40 30' N	Intersection of 40 30' N and the US-Canada Maritime Boundary, approx. 66 34.73' W
<b>Point 4</b>	40 30' N	67 20' W

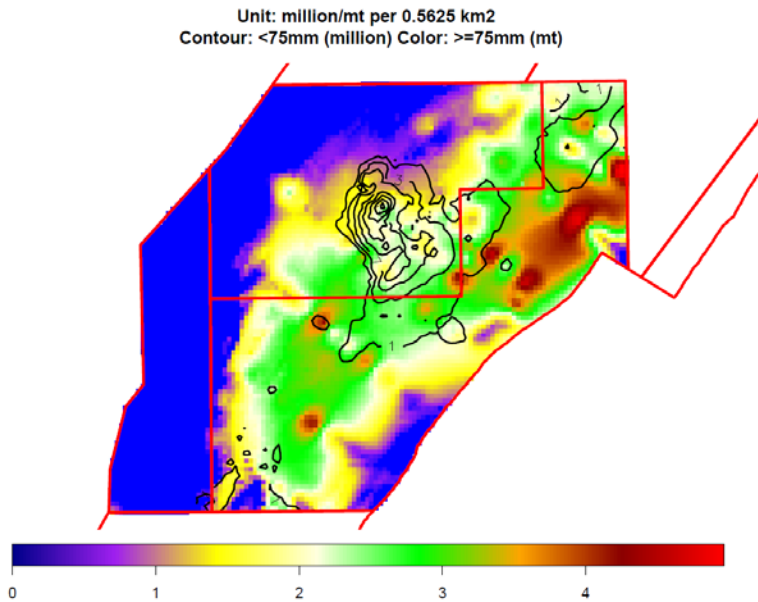
**Figure 3 – Alternative 3 Option 1 – potential extension of access area in Closed Area II**



#### 2.2.1.4 Alternative 4 – Extend closure of ETA closed

In Framework 26 an inshore portion of ETA was closed. This alternative will consider extending the spatial coverage of that closure to better protect small scallops. The boundary may be extended to the south and west. The advisors recommend leaving a corridor in deeper waters to provide access to larger scallops within ETA.

**Figure 4 – Estimate of biomass from 2015 Habcam survey (color represents biomass larger than 75mm and contours indicate concentrations of smaller scallops, less than 75mm).**



**Figure 5 – Abundance of small scallops from 2015 VIMS dredge survey within MA access areas**

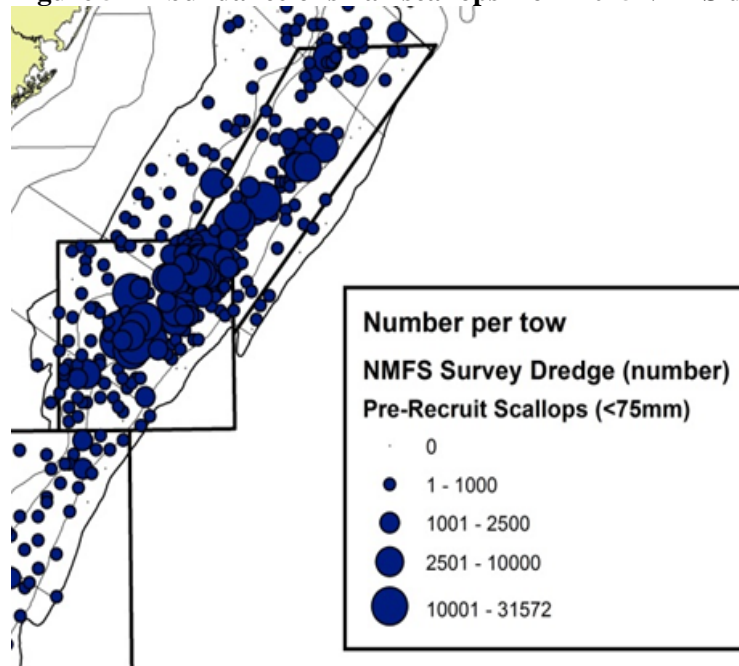
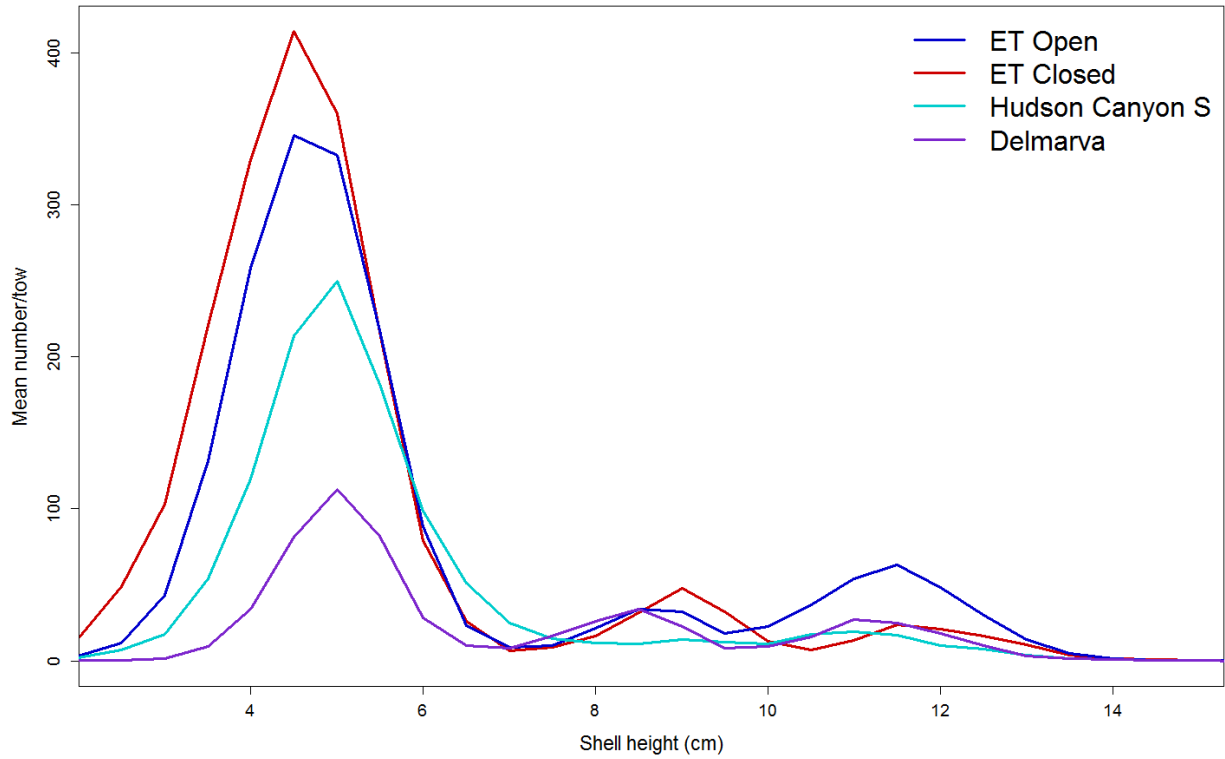


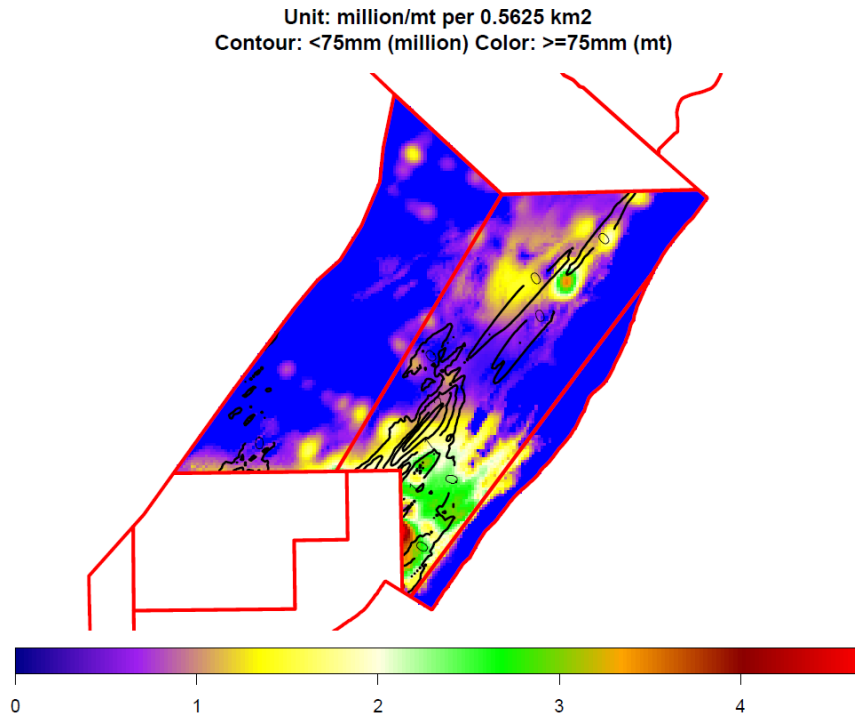
Figure 6 – Mean shell height frequencies per area from 2015 VIMS dredge survey (cm)



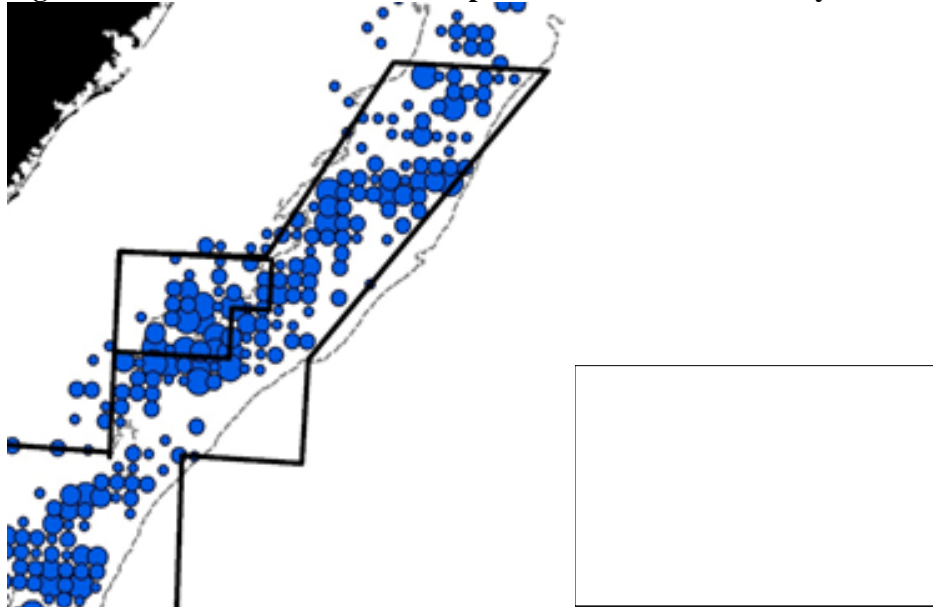
### 2.2.1.1 Alternative 5 - Closure in Hudson Canyon

*This may be seasonal, may be only portion of the access area  
Still under development*

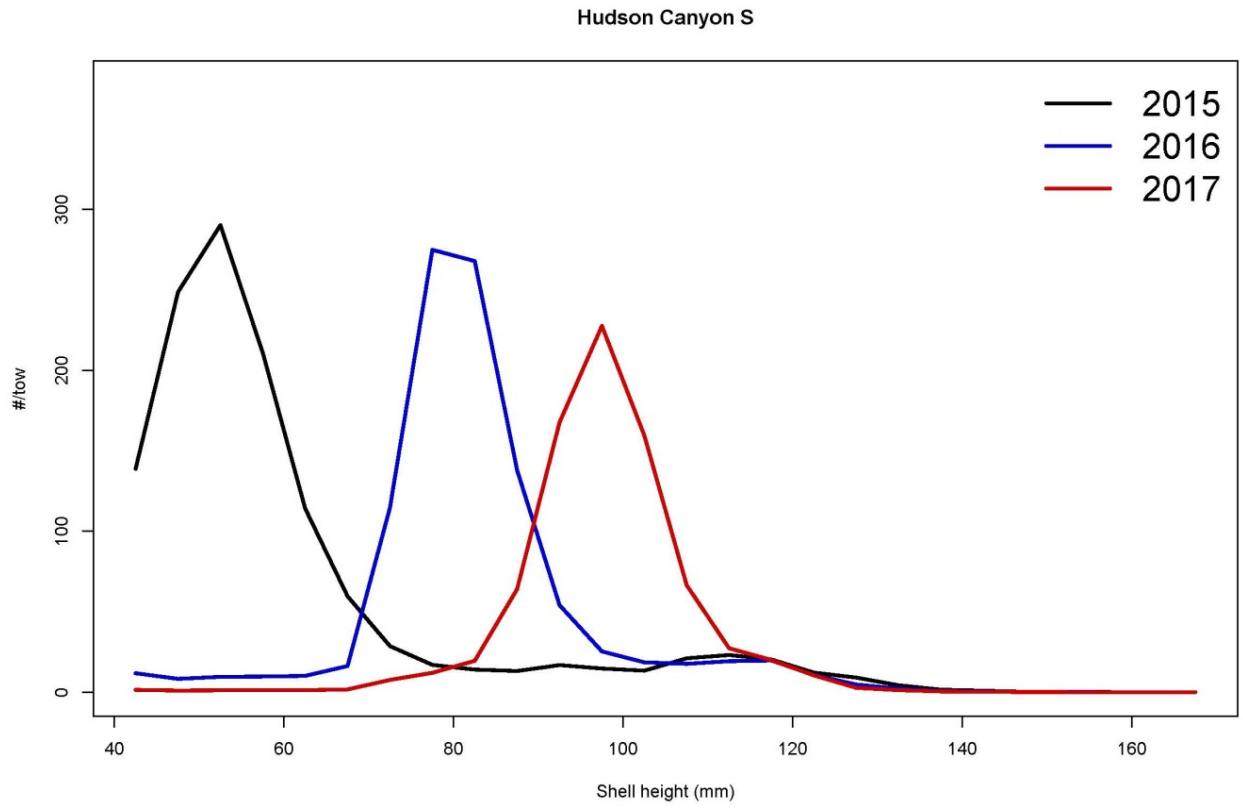
**Figure 7 – Estimate of biomass from 2015 Habcam survey (color represents biomass larger than 75mm and contours indicate concentrations of smaller scallops, less than 75mm).**



**Figure 8 – Abundance of small scallops from 2015 SMAST survey in MA access areas**



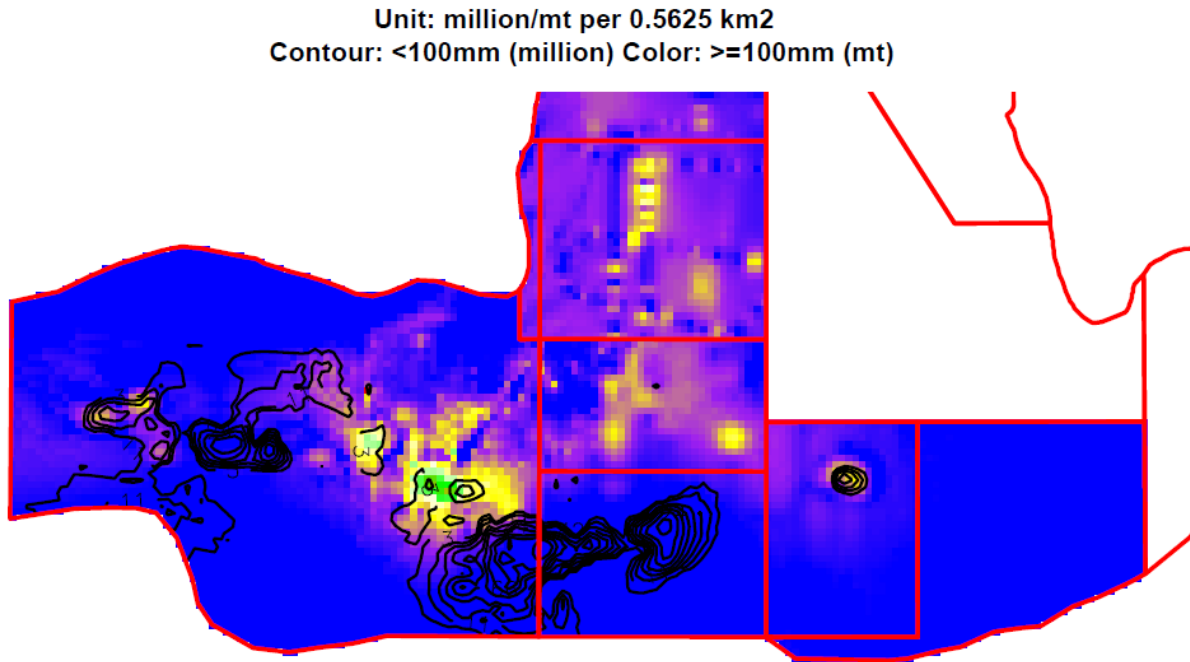
**Figure 9 – Projected mean shell height frequencies for Hudson Canyon access area, 2015-2017**



**2.2.1.2 Alternative 6 – Limited access in northern part of Nantucket Lightship Access Area**

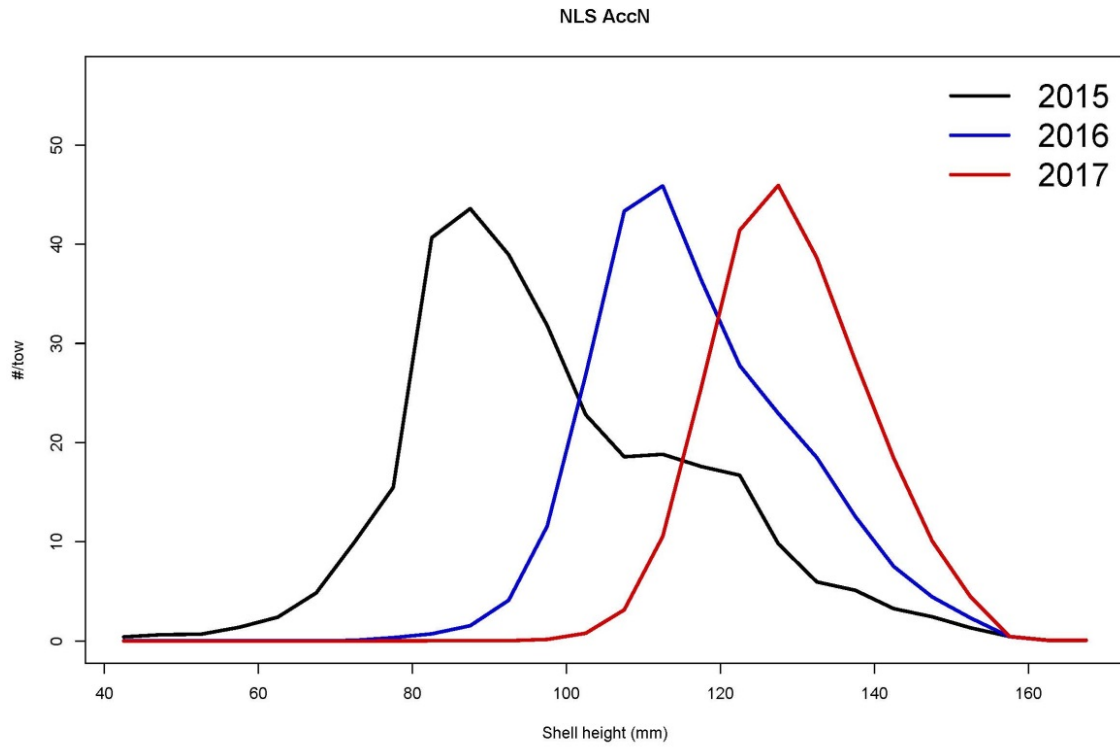
*The PDT did not originally recommend access in NL for 2016. The AP and Committee requested that limited access be considered.*

**Figure 10 – Estimate of biomass from 2015 Habcam survey (color represents biomass larger than 75mm and contours indicate concentrations of smaller scallops, less than 100mm).**

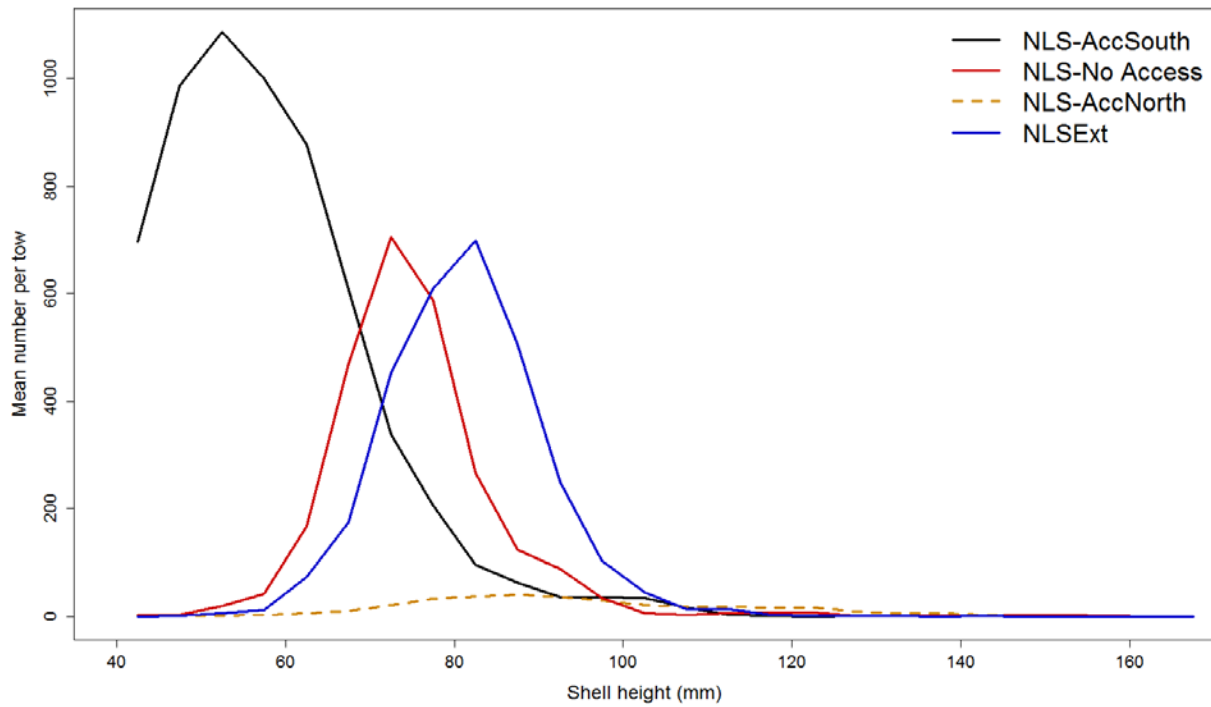




**Figure 11 – Projected mean shell height frequencies for Hudson Canyon access area, 2015-2017**



**Figure 12 – Mean shell height frequencies per area from 2015 VIMS dredge survey (mm)**



**2.2.2 Allocation of LAGC IFQ trips in access areas**

The LAGC IFQ fishery is allocated a fleetwide total number of access area trips. Individual vessels are not required to take trips in specific areas like access area trips allocated to the limited access fishery. Instead, a maximum number of trips is identified for each area and once that limit is reached, the area closes to all LAGC IFQ vessels for the remainder of the fishing year. The level of allocation can vary and is specified in each framework action. These options can be combined with either the lottery allocation or the flexible allocation (2.3). If the lottery allocation is selected, a set number of LAGC trips would be set for each access area. If the flexible allocation option is selected, the LAGC fishery would have an overall allocation of MA AA trips that could be harvested from any or all MA areas. This framework action is considering four options for allocating fleetwide LAGC IFQ trips in access areas in FY2015.

**2.2.2.1 Option 1 – No Action – No access area trips allocated for LAGC IFQ vessels**

Access area trips are set by framework action, and if this action does not specify the number of trips per area for LAGC IFQ vessels, those vessels would not be able to fish in scallop access areas in FY2015. They would need to harvest all IFQ from open areas.

**2.2.2.2 Option 2 - Allocate fleetwide trips equivalent to 5.5% of catch per access area open to the fishery**

This alternative would allocate 5.5% of the access area TAC per area to the LAGC fishery in the form of fleetwide trips. Vessels would still be restricted to the possession limit of 600 pounds. Once the fleetwide max is projected to be fished, NMFS would close that access area to LAGC IFQ vessels for the remainder of the 2015 fishing year. Total removals from MA access areas is expected to be 19.19 million pounds in FY2015. An allocation of 5.5% of that amount is equivalent to 1.05 million pounds, or 1,758 trips with a 600 pound possession limit. See Table 7 for a summary of the trips that would be available to the LAGC fishery under this option.

**Table 7 – Summary of alternative under consideration for LAGC IFQ trip allocations in access areas in FY2015**

	<b>Name</b>	<b>% of AA catch</b>	<b>Max LAGC catch in AA</b>	<b>Total number of Trips</b>
<b>Option1</b>	No access area allocation	0%	0	0
<b>Option2</b>	Same allocation as overall LAGC IFQ allocation	5.50%	1.05	1,758
<b>Option3</b>	2 million pound allocation	10.4%	2.00	3,333
<b>Option4 (Preferred)</b>	Same proportion of access area catch as overall fishery	6.50%	1.24	2,065

*Values subject to change if overall catch values change – these are based on total access area catch of 8,700 mt or 19,180,220 pounds and total catch of 46 million pounds.*

### **2.2.3 Additional measures to reduce impacts on small scallops**

In addition to closed areas there are other measures that reduce incidental mortality on small scallops (i.e.. crew limits, prohibition on RSA compensation fishing, seasonal restrictions, and gear modifications). These potential measures were discussed and the only alternative included for consideration in this action is ???.

## **2.3 ALLOCATION METHOD FOR MID-ATLANTIC ACCESS AREA TRIPS IN 2015 ONLY**

*Uncertain what method makes sense yet until specification alternatives are further developed.*

### **2.3.1 No Action (lottery allocation)**

### **2.3.2 Flexible allocation for Mid-Atlantic access area trips**

## **3.0 CONSIDERED AND REJECTED ALTERNATIVES**

## **4.0 AFFECTED ENVIRONMENT**