DRAFT

Framework 28 to the Scallop FMP

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1.0 BACKGROUND AND PURPOSE

1.1 BACKGROUND

This framework to the Scallop Fishery Management Plan (FMP) sets fishery specifications for fishing year (FY) 2017 and default measures for FY 2018. The New England Fishery Management (Council) decided to develop a one-year action only, including default measures for Year 2 only (FY2018).

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 also included several management measures for consideration in this action. They include: 1) measures to restrict the possession of shell stock inshore of 42° 20’ N; 2) measures to apply spatial management to fishery specifications (ACL flowchart); 3) measures to modify the Closed Area I access area boundary, consistent with potential changes to habitat and groundfish mortality closed areas.

1.2 PURPOSE AND NEED

This Framework (FW28) is intended to set specifications and to adjust management measures for the Atlantic Sea Scallop fishery. The need for this action is to achieve the objectives of the Atlantic Sea Scallop FMP to prevent overfishing and optimize yield by improving yield-per-recruit from the fishery, to apply spatial management to all part of the specification setting process, to remove incentives allowing LA vessels to possess and process large quantities of scallops while not using a DAS, and to facilitate access to newly opened portions of CA I, consistent with the OHA2 Final Rule.

The 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 2017 fishing year, as well as default measures for FY2018 that are expected to be replaced by a subsequent action.

Need	Purpose	Section(s)
To achieve the objectives of the Atlantic Sea Scallop FMP to prevent overfishing and improve yield-per recruit from the fishery	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 2017 fishing year, as well as default measures for FY2018 that are expected to be replaced by a subsequent action.	Sections 2.1, 2.2, 2.3, 2.4, and 2.5
To apply the spatial management to the specification setting process	To set specifications for the LA and LAGC IFQ components based on exploitable biomass in areas which will be open to the fishery (spatial management).	Section 2.3
To remove the incentive to not use a DAS while possessing and processing in excess of 50 bu of shell stock.	To prohibit the possession of shell stock in excess of 50 bu inshore of the DAS demarcation line north of 42 20'N.	Section 2.8
To facilitate access to newly opened portions of CA I, consistent with the OHA2 Final Rule	To update the Closed Area I access area boundary to allow harvest of recruited scallops, consistent with the OHA2 Final Rule.	Section 2.7

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 1.3.3.

1.3.2 Summary of 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 3. 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 2 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 has 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. The potential modifications for existing closures, if approved, would not be implemented until mid-2017 under the best case scenario.

1.3.3 Summary of Scallop Fishery Specifications and 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 3 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 is 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 is presumed to have 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.

1.4 DEFAULT MEASURES APPROVED IN FRAMEWORK 27

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 in 2017, 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 FW27 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 2017 when measures were developed in 2015; 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 2016 compensation trips in the access areas that were open in FY 2016 for the first 60 days of FY2017 (i.e., March 1 through April 29, 2017). This carryover provision has been in place for many years. Under FY2017 default measures the Council also stipulated that 2017 RSA compensation fishing would not be allowed in access areas, until a new framework action allowed it (potentially FW28, this action). The crew limits in place for both open and access areas (one additional crew member compared to open areas) would remain in place under default measures.

The default measures for 2017 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, 2017 until FW28 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 4.4 million pounds. Their allocations for FY2017 may ultimately change based on the final sub-ACL approved in FW28. LAGC IFQ vessels are responsible to payback any overage the following year if the ultimate IFQ for FY2017 is lower than the allocation under the default sub-ACL. If the Council elects to change the way the LAGC IFQ vessels are allocated from 5.5% of the ACL to 5.5% of the projected landing, the IFQ quota will be lower in FY2017 and initial allocations based on the default measures will likely need to be adjusted.

If FW28 is not adopted these default allocations would remain in place for all of FY2017 and beyond until replaced by a subsequent action.

Table 1 – Summary of ACL related values for the scallop fishery based on default FY 2016 values in FW27.

	2017 (default)	
	MT	lbs.
OFL	68,418	150,835,870
ABC/ACL (discards removed)	37,852	83,449,375
incidental	23	50,000
RSA	567	1,250,000
OBS	379	835,552
ACL for fishery	36,884	81,315,314
LA ACL	34,855	76,842,134
LAGC ACL	2,029	4,473,180
LAGC IFQ	1,845	4,067,529
LA with LAGC IFQ	184	405,650

Table 2 –Summary of FW27 default measures for LA vessels.

Fishing Year	Full Time (FT) LA DAS	Part Time (PT) LA DAS	LA Occasional DAS
2017	34.55	13.82	2.88
Note: FY2017 default measures set DAS and LAGC IFQ allocations equal to the 2016 allocations. One Mid-Atlantic Access Area trip is available on April 1 at 17,000lbs.			

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 2017 values adopted in Framework 27 (Table 3) that were calculated for FY2016 and FY2017 based on survey and fishery data through 2015. 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 Fmsy; 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 3, column to the far right).

Table 3 - Summary of OFL and ABC FY 2017 (default) values approved by the SSC in Framework 27 (in metric tons).

	OFL (including discards at OFL)	ABC (including discards)	Discards (at ABC)	ABC available to fishery (after discards removed)
2017 (default)	68,418	55,737	17,885	37,852

Once the OFL and ABC are established, associated ACLs for the fishery can be defined. The table below summarizes the various ACL allocations for the fishery under 2017 default measures in Framework 27 (Table 4).

Table 4 – Summary of ACL related values for the scallop fishery based on default FY 2016 values in FW27.

	2017 (default)	
	MT	lbs.
OFL	68,418	150,835,870
ABC/ACL (discards removed)	37,852	83,449,375
incidental	23	50,000
RSA	567	1,250,000
OBS	379	835,552
ACL for fishery	36,884	81,315,314
LA ACL	34,855	76,842,134
LAGC ACL	2,029	4,473,180
LAGC IFQ	1,845	4,067,529
LA with LAGC IFQ	184	405,650

2.1.2 Alternative 2 – Updated OFL and ABC for FY 2017 and FY 2018 (default)

Alternative 2 would specify OFLs and ABCs for FY 2017 and FY 2018.

Table 5 - SSC recommendations of FY2017 and FY2018 OFLs and ABCs (upper bound).

	OFL (including discards at OFL)	ABC (including discards)	Discards (at ABC)	ABC available to fishery (after discards removed)
2017	75,485	61,741	15,004	46,737
2018 (default)	69,678	56,992	13,850	43,142

2.2 NORTHERN GULF OF MAINE TOTAL ALLOWABLE CATCH (NGOM TAC)

2.2.1 Alternative 1 – No Action (Default measures from Framework 27)

The NGOM hard TAC would be set at 70,000 pounds. Note that this TAC will be reduced by a roughly 20,000 lb overage from FY2015 and FY2016. The realized TAC under this option would likely be around 50,000 lbs.

2.2.2 Alternative 2 – NGOM TAC based on 2016 survey results and FY2016 catch ratio.

The NGOM hard TAC would be set using biomass estimates from the 2016 survey and FY 2016 landings data from the LAGC IFQ, LAGC NGOM, and LA components. The TAC would be determined by multiplying the ratio of General Category/Limited Access landings with a range of biomass estimates using an F=0.2, and a dredge efficiency equal to 0.4. General category catch by IFQ and NGOM permits accounted for 23% of the landings attributed to the NGOM management area in FY 2016. With respect to biomass estimates, the scallop PDT recommended using values no higher than the 25th quartile. Four sub-options have been developed in this action.

Table 6 - Range of potential NGOM TAC values for FY2017 (lbs)

Column	*A*	*B*	*C*
	Percentile	Biomass estimate	NGOM TAC (column *B* x 23%)
Status Quo			**70,000**
Sub-Option 1	15th %	411,048	**95,000**
Sub-Option 2	25th %	480,428	**111,000**

2.2.2.1 Sub-Option 1 – NGOM hard TAC of 95,000 pounds

The NGOM hard TAC would be set at 95,000lbs using the method described above in Section 2.2.2. This TAC value is associated with biomass estimate at the 15th percentile, assuming an F=0.2 and a dredge efficiency of 0.4. Note that this TAC will be reduced by a roughly 20,000 lb overage from FY2015 and FY2016. The realized TAC under this option would likely be around 75,000 lbs.

2.2.2.2 Sub-Option 2 – NGOM hard TAC of 111,000 pounds

The NGOM hard TAC would be set at 111,000lbs using the method described above in Section 2.2.2. This TAC value is associated with biomass estimate at the 25th percentile, assuming an F=0.2 and a dredge efficiency of 0.4. Note that this TAC will be reduced by a roughly 20,000 lb overage from FY2015 and FY2016. The realized TAC under this option would likely be around 91,000 lbs.

2.3 APPLYING SPATIAL MANAGEMENT TO THE SPECIFICATION SETTING PROCESS (ACL FLOWCHART)

Annual catch limits (ACLs) in the scallop fishery are based on the overall biomass (projected landings at F=0.38 in all areas, including closed areas), while projected landings are limited to the harvestable biomass in areas that are open to the fishery in a given year. The ACL split for the LA and LAGC fisheries are consistent with decisions made in Amendment 11 (94.5% to the LA fishery and 5.5% to the LAGC fishery). Since Amendment 15 (A15), the LAGC IFQ allocation has been based on scallop projected landings at F=0.38 in all areas, including closed areas, and the LA allocation has been based on projected landings for the fishing year, after accounting for the research set-aside, observer set-aside, incidental landings, and the LAGC IFQ share (5.5% of the ACL). In this way, the allocation to LA is spatially explicit, while the LAGC IFQ allocation is not.

The Council may select either Section 1.1.1 (No Action) or Section 0 (Alternative 2). Once the Council has identified a preferred, the range of fishery specifications will be limited to those associated with either No Action or Alternative 2. In FW28, the specification options and component allocations are part of this measure. See Section 4.1.5 for additional information on allocations and landings.

Table 7 - Range of Specification Options under 2.3.1 (Status Quo) and 2.3.2 (Spatial Management), including the allocations and percent share of projected landings between the LA component and the LAGC IFQ component.

	Approach to setting Specifications	No Action (IFQ at 5.5% of ACL) **Section 2.3.1**				Applying Spatial Management to Spec Setting (IFQ at 5.5% of PL) **Section 2.3.2**					
						Basic Run Options			Basic Run + ETC Flex Options		
a	FW 28 Measure	2.3.1.1.1	2.3.1.1.2	2.3.1.1.3	2.3.1.1.4	2.3.2.1.1.1	2.3.2.1.1.2	2.3.2.1.1.3	2.3.2.1.2.1	2.3.2.1.2.2	2.3.2.1.2.3
b	Description	Basic Run and 30 DAS	Basic Run + ETC Flex at 30 DAS	Status Quo From FY2016 (FW27)	No Action	Basic Run and 30 DAS	Basic Run and DAS set at F=0.4	Basic Run and DAS set at F=0.48	Basic Run + ETC Flex at 30 DAS	Basic+ETC Flex and DAS set at F=0.4	Basic+ETC Flex and DAS set at F=0.48
c	Run	2. Basic Run GCSQ	SQ	7. ETCGC SQ	1. No Action	3. Basic Run GCP	4. OpF=0.4	5. OpF=0.48	6. ETC		
d	Landings (mil lbs)	52.4	52.4	47.7	35.6	49.2	47.3	51.1	49.2	47.3	51.1
e	Incidental Catch	50,000 lbs	50,000 lbs	50,000 lbs	50,000 lbs	50,000 lbs	50,000 lbs	50,000 lbs	50,000 lbs	50,000 lbs	50,000 lbs
f	RSA Set-Aside	1.25 mil. Lbs	1.25 mil. Lbs	1.25 mil. Lbs	1.25 mil. Lbs	1.25 mil. Lbs	1.25 mil. Lbs	1.25 mil. Lbs	1.25 mil. Lbs	1.25 mil. Lbs	1.25 mil. Lbs
g	Observer Set-Aside	1 mil. Lbs	1 mil. Lbs	1 mil. Lbs	835,000 lbs	1 mil. Lbs	1 mil. Lbs	1 mil. Lbs	1 mil. Lbs	1 mil. Lbs	1 mil. Lbs
h	IFQ Quota (% share)	5.5 mil (10.5%)	5.5 mil (10.5%)	4.4 mil. (9.4%)	4.4 mil. (12.5%)	2.58 mil. (5.5%)	2.47 mil. (5.5%)	2.68 mil. (5.5%)	2.58 mil. (5.5%)	2.47 mil. (5.5%)	2.68 mil. (5.5%)
i	LA Allocation (% Share)	44.5 mil (85%)	44.5 mil (85%)	41 mil. (86.1%)	29 mil (81.5%)	44.3 mil. (94.5%)	42.5 mil (94.5%)	46 mil. (94.5%)	44.3 mil. (94.5%)	42.5 mil (94.5%)	46 mil. (94.5%)
j	FT LA DAS	30	30	34.55	34.55	30	27.56	32.44	30	27.56	32.44
k	PT LA DAS	12	12	13.82	13.82	12	11.04	12.98	12	11.04	12.98
l	Total AA mt	12169	12170			11037	11037	11037	11038	11038	11038
m	Total AA lbs (mil. Lbs)	26.8	26.8			24.3	24.3	24.3	24.3	24.3	24.3
n	FT AA Allocation	72000	72000	51000	17000	72000	72000	72000	72000	72000	72000
o	(poss limit)	18000	18000	17000	17000	18000	18000	18000	18000	18000	18000
p	PT AA Allocation	28800	28800	20400	10200	28800	28800	28800	28800	28800	28800
q	(poss limit)	14400	14,400	10200	10200	14400	14400	14400	14400	14400	14400
r	MAAA	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open
s	ETC Rotational	Closed	Open*	Closed	Closed	Closed	Closed	Closed	Open*	Open*	Open*
t	NLS	Open	Open	Closed**	Closed	Open	Open	Open	Open	Open	Open
u	CA II	Open	Open	Closed	Closed	Open	Open	Open	Open	Open	Open
	* Seasonal closure from July 1 - September 30										
	** Same access as FY2016										
Options for Allocations Based on a 13 Month FY (Section 2.4). Increase by 8% is based on additional length of year (13/12ths), Increase by 4.7% is based on recent DAS and IFQ quota usage in March. Values below represent the total allocations for FY2017 based on pro-rating for a 13 month FY. Access Area allocations will not be pro-rated.											
v	13 Month LA DAS (8%)	32.4	32.4	37.314	37.314	32.4	29.7648	35.0352	32.4	29.7648	35.0352
w	13 Month IFQ (8%)	5.64 mil. Lbs	5.64 mil. Lbs	4.58 mil. Lbs	4.58 mil. Lbs	2.69 mil. Lbs	2.57 mil. Lbs	2.8 mil. lbs	2.69 mil. Lbs	2.57 mil. Lbs	2.8 mil. lbs
x	13 Month LA DAS (4.7%)	31.41	31.41	36.17385	36.17385	31.41	28.85532	33.96468	31.41	28.85532	33.96468
y	13 Month IFQ (4.7%)	5.6 mil. lbs	5.6 mil. lbs	4.55 mil. lbs	4.55 mil. lbs	2.64 mil. Lbs	2.53 mil. Lbs	2.75 mil. Lbs	2.64 mil. Lbs	2.53 mil. Lbs	2.75 mil. Lbs
NOTE: All DAS allocations will be adjusted to allow for flexibility provided under FW26 for vessels to declare out of the fishery at Cape May and steam off the clock. The DAS reduction is 0.14 for FT LA vessels and 0.06 for PT LA vessels.											

2.3.1 Alternative 1 – No Action

There would be no change to the current process of specifying allocations of projected landings to the LA and LAGC IFQ components of the fishery. The LAGC IFQ component would receive 5.5% of the ACL. The LA component would be based on projected landings for the fishing year, after accounting for the research set-aside, observer set-aside, incidental landings, and the LAGC IFQ share (5.5% of the ACL).

2.3.1.1 Overall Fishery Allocations under Status Quo

2.3.1.1.1 Alternative 1 – Basic Run

This is the basic alternative the PDT generally begins with when identifying possible specification alternatives. The overall intent of this alternative is to set target catches using the three principles developed as part of the "hybrid" overfishing definition approved in Amendment 15, and not include additional closures or modifications to boundaries of the overall area rotation program. The three main principles that are generally used in this FMP to set target catches for the fishery are:

1) fishing mortality in open areas cannot exceed Fmsy;
2) a spatially averaged fishing mortality target is limited to the landings associated with the annual catch target (ACT) for the fishery overall from 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 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 FY2017 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 0.11.

The intent of this alternative is to reduce discard and incidental mortality on small scallops observed in several areas during the 2016 survey season. This alternative would maintain the existing Closed Area II Extension Rotational Closed Area and the Elephant Trunk Rotational Closed Areas, while converting the existing "bump out" in the Nantucket Lightship Rotational Closure to open bottom. Maintaining the existing Closed Area II Extension Rotational Closed Area and the Elephant Trunk Rotational Closed Areas is likely to increase yield-per-recruit for the fishery in coming years.

The specific allocations associated with this specification alternative are:

- Total FY2017 projected catch for this alternative is 52.4 million pounds (from all sources of catch and areas) assuming 30 DAS.
- LA sub-ACL would be 95,167,497 pounds and the LAGC IFQ sub-ACL is 5,538,849 pounds (based on 13 month FY prorated at 13/12ths).
- 30.00 DAS for LA FT vessel, 12.00 DAS for LA PT vessel, and 2.50 DAS for LA occasional vessels. All DAS allocations will be adjusted to allow for flexibility provided under FW26 for vessels to declare out of the fishery at Cape May and steam off the clock. The DAS reduction is 0.14 for FT LA vessels and 0.06 for PT LA vessels.
- Access areas open to the fishery under this alternative are: the Mid-Atlantic Access Areas (2 trips), Closed Area 2 South (1 trip), and the Nantucket Lightship (1 trip). Each LA FT vessels would be allocated 72,000 pounds (18,000 per AA area trip, trip limit).
- PT and Occ AA allocations would be set at 28,800 pounds for PT and 6,000 pounds for occasional vessels. PT vessels trip limit would be 14,400 lbs, and vessels would be allowed to fish up to 1 trip in the NLS, CAII, and ETC (if opened), and up to 2 trips in the MAAA. Occ vessels would be eligible to fish their 6,000 lb trip in any AA area open to the fishery.
- LAGC Incidental target TAC remains at 50,000 pounds.
- The Closed Area II Extension Rotational Closed Area (Closed in FW27), would remain closed.
- The Elephant Trunk Rotational Closed Area would remain closed.

2.3.1.1.2 Alternative 2 – Basic Run and Elephant Trunk Closed Flex Option

This alternative maintains all of the provisions from Alternative 1, but handles access within the Mid-Atlantic Access Area differently. In Alternative 2, the Elephant Trunk Rotational Closure would become an access area. LA vessels would have the option to fish an access area trip in this area, or they could elect to fish that trip in the Mid-Atlantic access area. This option would allow the LA fishery to more broadly distribute their effort within Mid-Atlantic access areas. Dredge and HabCam surveys of the Elephant Trunk area indicate that the majority of the biomass in the area is concentrated within the rotational closure. Size frequency plots from HabCam data also suggest that there are several cohorts of varying sizes (recruits and pre-recruits) in the Rotational Closure. The overall intent of this alternative is to reduce discard and incidental mortality on small scallops by distributing effort that would have been fished in the MAAA into an area with known concentrations of pre-recruits and exploitable animals. Access to the Elephant Trunk Rotational Closure/Access Area would be prohibited from July 1 – September 30 to reduce discard mortality, and vessels would be limited to 1 VMS declaration into the area.

The specific allocations associated with this specification alternative are:

- Total FY2017 projected catch for this alternative is 52.4 million pounds (from all sources of catch and areas)
- LA sub-ACL would be 95,167,497 pounds and the LAGC IFQ sub-ACL is 5,538,849 pounds (based on 13 month FY prorated at 13/12ths).
- 30.00 DAS for LA FT vessel, 12.00 DAS for LA PT vessel, and 2.50 DAS for LA occasional vessels. All DAS allocations will be adjusted to allow for flexibility provided under FW26 for vessels to declare out of the fishery at Cape May and steam off the clock. The DAS reduction is 0.14 for FT LA vessels and 0.06 for PT LA vessels.

- Access areas open to the fishery under this alternative are: the Mid-Atlantic Access Areas (1 trip), Elephant Trunk Rotational (Closure) Area (1 trip), Closed Area 2 South (1 trip), and the Nantucket Lightship (1 trip). Each LA FT vessels would be allocated 72,000 pounds (18,000 per AA area trip, trip limit).
- PT and Occ AA allocations would be set at 28,800 pounds for PT and 6,000 pounds for occasional vessels. PT vessels trip limit would be 14,400 lbs, and vessels would be allowed to fish up to 1 trip in the NLS, CAII, and ETC (if opened), and up to 2 trips in the MAAA. Occ vessels would be eligible to fish their 6,000 lb trip in any AA area open to the fishery.
- The Closed Area II Extension Rotational Closed Area (Closed in FW27), would remain closed.
- There would be a seasonal closure of ETC area from July 1 – September 30.
- LAGC Incidental target TAC remains at 50,000 pounds.

2.3.1.1.3 Alternative 3 – Status Quo (FY2017 Measures from Framework 27)

The overall intent of this alternative would be to reduce discard and incidental mortality on small scallops observed in Closed Area II S access area, the Closed Area II Extension Rotational Closure, the Nantucket Lightship Rotational Closed Area (LA only), and the Elephant Trunk Rotational Closure.

The specific allocations associated with this specification alternative are:

- Total FY2017 projected catch for this alternative is 47.7 million pounds (from all sources of catch and areas)
- LA sub-ACL is 76,842,134 pounds and the LAGC IFQ sub-ACL is 4,473,180 pounds
- 34.69 DAS for LA FT vessel, 13.88 DAS for LA PT vessel, and 2.92 DAS for LA occasional vessels. All DAS allocations will be adjusted to allow for flexibility provided under FW26 for vessels to declare out of the fishery at Cape May and steam off the clock. The DAS reduction is 0.14 for FT LA vessels and 0.06 for PT LA vessels. Therefore, the final allocations would be 34.55 for LA FT vessels and 13.82 for LA PT vessels.
- Only the Mid-Atlantic Access Areas would be open to the LA component of the fishery. Each LA FT vessels would be allocated 51,000 pounds, 20,400 pounds for PT and 4,080 pounds for occasional vessels. All other access areas would be closed to the fishery under this alternative (CA1 and NL).
- LAGC IFQ vessels would be allocated AA trips to the MAAA (2068 trips) and the NLS (485 trips).
- The target TAC for vessels with a LAGC Incidental permit is 50,000 pounds.

2.3.1.1.4 Alternative 4 – No Action (Default measures from Framework 27)

Under No Action, the sub-ACL for the LA fishery would be 34,855 mt (76,842,134 lbs). The specifications would include default measures approved in Framework 27 for DAS which are 100% of the projected DAS for FY2016. For full-time vessels that is equivalent to 34.55 DAS, and 13.82 DAS for part-time vessels. The LA component would have some access to the MA access area, the equivalent of one 17,000 pound trip for FT vessels. However, the area would not

open for now 2017 allocations until April 1, 2017. These measures would remain in place until replaced by another action.

Under the FY2017 default measures the LAGC IFQ allocation would be 2,029 mt (4,473,180 lbs) for LAGC IFQ and LA with LAGC IFQ quota. This allocation is equivalent to 5.5% of the ACL projected for FY2017 from FW27. LAGC IFQ vessels would also have access in the MA AA on April 1, 2017 under default measures, with a fleet wide maximum of 851 trips from the area.

On March 1, 2017 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 FW28. Similar to recent years, LAGC vessels will need to be aware that final allocations for FY2017 are likely to be different than allocations received on March 1, 2016 before FW28 is implemented.

The target TAC for vessels with a LAGC Incidental permit is 50,000 pounds.

2.3.1.1.5 Default measures for 2018 –

The PDT recommends that default measures for the limited access fishery include DAS at 75% of the projected DAS allocation for 2017, and one access area trip in the MAAA at 18,000 for FT LA vessels. The PDT also recommends that IFQ quota allocations be set at 75% of the 2017 values at the start of the fishing year. The PDT notes that both DAS and IFQ quota will need to be retroactively reduced from the 2017 default values set through FW27.

2.3.1.2 Fishery Allocations to LAGC IFQ Component

The LAGC IFQ fishery is allocated a fleet wide 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 are 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. This action is considering several allocation options, as well as several area options depending on which areas are open to the scallop fishery in FY2017. In addition to No Action, the PDT developed…

2.3.1.2.1 Allocation of LAGC IFQ Trips in Access Areas

2.3.1.2.1.1 Alternative 1 – No Action (851 trips – Default Measures)

Alternation 1 would set LAGC IFQ access area trips at the number of trips specified through default measures in FW27.

2.3.1.2.1.2 Alternative 2 – Same AA Proportion as LA (51%, 4,723 trips)

This alternative is based on applying the same proportion of total catch coming from access areas for the overall fishery. For example, under both Alternative 1 and Alternative 2, 51% of the total projected catch is from access areas and 49% is from open areas. Therefore, the same 51% is applied to the overall LAGC IFQ allocation that equates to about 2.8 million pounds or 4,723 trips at 600 pounds per trip. This is the method that was used in Framework 26 and Framework 27.

2.3.1.2.1.3 Alternative 3 – 5.5% of the Access Area Allocations (2,459 trips)

This option is based on applying the same allocation value for the overall ABC/ACL, which is 5.5% for the LAGC fishery. When 5.5% is applied to the overall access area allocations for FY2017, that equates to about 1.475 million pounds or 2,459 trips. This method has been used in previous actions.

2.3.1.2.2 LAGC IFQ Allocations (by area)

2.3.1.2.2.1 Alternative 1 – Equal Distribution to All Access Areas

This option would allocate LAGC IFQ AA trips to all open AAs.

2.3.1.2.2.2 Alternative 2 – Equal distribution based to all Access Areas, and Prorate the Equivalent of CA II trips evenly other Access Areas.

This option would allocated LAGC IFQ AA trips equally to all open access areas, and prorate LAGC CA II AA trip allocation evenly across all other open access areas (NLS, MAAA, and potentially the ETC).

2.3.1.2.2.3 Alternative 3 – Equal distribution based to all Access Areas, and Prorate the Equivalent of CA II trips 50% to NLS and 50% to MAAA/ETC.

This option would allocated LAGC IFQ AA trips equally to all open access areas, and prorate LAGC IFW CAII AA trip allocations by 50% to the NLS AA, and 50% to the MAAA/ETC AA.

2.3.2 Alternative 2 – Fishery allocations based on spatial management

The allocation of projected landings between the LA and LAGC IFQ components would follow the spatial management of the fishery. The LA component would receive 94.5% of the projected landings from areas open to the fishery, and the LAGC IFQ component would receive 5.5% of the projected landings from areas open to the fishery, after set-asides and incidental landings are accounted for. Because the ACL in the scallop fishery is based on exploitable animals from the the overall biomass, and projected landings are based on spatial management for a given fishing year, the allocations for both components would be capped at either the ACT for the LA component, or the sub-ACL for the LAGC IFQ component.

Rationale: Basing allocations for both the LA and LAGC IFQ components on harvestable biomass better reflects the area based management used in the scallop fishery.

2.3.2.1 Overall Fishery Allocations under Spatial Management

For all of the specification alternatives below, the LA and LAGC IFQ allocations would be based on projected landings.

2.3.2.1.1 Alternative 1 – Basic Run

This is the basic alternative the PDT generally begins with when identifying possible specification alternatives. The overall intent of this alternative is to set target catches using the three principles developed as part of the "hybrid" overfishing definition approved in Amendment 15, and not include additional closures or modifications to boundaries of the overall area rotation program. The three main principles that are generally used in this FMP to set target catches for the fishery are:

4) fishing mortality in open areas cannot exceed Fmsy;
5) a spatially averaged fishing mortality target is limited to the landings associated with the annual catch target (ACT) for the fishery overall from all areas combined (open and closed areas); and
6) 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 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 FY2017 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 0.11.

The intent of this alternative is to reduce discard and incidental mortality on small scallops observed in several areas during the 2016 survey season. This alternative would maintain the existing Closed Area II Extension Rotational Closed Area and the Elephant Trunk Rotational Closed Areas, while converting the existing "bump out" in the Nantucket Lightship Rotational Closure to open bottom. Maintaining the existing Closed Area II Extension Rotational Closed Area and the Elephant Trunk Rotational Closed Areas is likely to increase yield-per-recruit for the fishery in coming years.

The specific allocations associated with this specification alternative are:

- Total FY2017 projected catch for this alternative is 49.2 million pounds (from all sources of catch and areas)
- LA sub-ACL would be 95,167,497 pounds and the LAGC IFQ sub-ACL is 5,538,849 pounds (based on 13 month FY prorated at 13/12ths).
- Access areas open to the fishery under this alternative are: the Mid-Atlantic Access Areas (2 trips), Closed Area 2 South (1 trip), and the Nantucket Lightship (1 trip). Each LA FT vessels would be allocated 72,000 pounds (18,000 per AA area trip, trip limit).
- PT and Occ AA allocations would be set at 28,800 pounds for PT and 6,000 pounds for occasional vessels. PT vessel's trip limit would be 14,400 lbs, and vessels would be allowed to fish up to 1 trip in the NLS, CAII, and ETC (if opened), and up to 2 trips in the MAAA. Occ vessels would be eligible to fish their 6,000 lb trip in any AA area open to the fishery.
- LAGC Incidental target TAC remains at 50,000 pounds.
- The Closed Area II Extension Rotational Closed Area (Closed in FW27), would remain closed.
- The Elephant Trunk Rotational Closed Area would remain closed.

2.3.2.1.1.1 Sub-Option 1 – Basic Run with DAS set at 30 DAS (F=0.44)

This sub-option would set the DAS at 30 for the FT LA component, which would result in an open area F=0.44.

- 30.00 DAS for LA FT vessel, 12.00 DAS for LA PT vessel, and 2.50 DAS for LA occasional vessels. All DAS allocations will be adjusted to allow for flexibility provided under FW26 for vessels to declare out of the fishery at Cape May and steam off the clock. The DAS reduction is 0.14 for FT LA vessels and 0.06 for PT LA vessels.
- The LAGC IFQ Quota would be approximately 2.58 million pounds.

2.3.2.1.1.2 Sub-Option 2 – Basic Run with DAS set at F=0.40

Sub-Option 2 would set the FT LA DAS at 27.56, which is expected to result in an F=0.4 in the open areas.

- 27.56 DAS for LA FT vessel, 11.02 DAS for LA PT vessel, and 2.30 DAS for LA occasional vessels. All DAS allocations will be adjusted to allow for flexibility provided under FW26 for vessels to declare out of the fishery at Cape May and steam off the clock. The DAS reduction is 0.14 for FT LA vessels and 0.06 for PT LA vessels.
- The LAGC IFQ Quota would be approximately 2.47 million pounds.

2.3.2.1.1.3 Sub-Option 3 – Basic Run with DAS set at F=0.48

Sub-Option 3 would set the FT LA DAS at 32.44, which is expected to result in an F=0.48 in the open areas.

- 32.44 DAS for LA FT vessel, 12.98 DAS for LA PT vessel, and 2.70 DAS for LA occasional vessels. All DAS allocations will be adjusted to allow for flexibility provided under FW26 for vessels to declare out of the fishery at Cape May and steam off the clock. The DAS reduction is 0.14 for FT LA vessels and 0.06 for PT LA vessels.
- The LAGC IFQ Quota would be approximately 2.68 million pounds.

Table 8 - Comparison of DAS sub-options associated with Alt. 1 Basic Run

	F rate	FT	PT	Occ	LAGC IFQ
Sub-Option 1	F=0.44	30.00	12.00	2.50	2,579,320
Sub-Option 2	F=0.40	27.56	11.02	2.30	2,471,161
Sub-Option 3	F=0.48	32.44	12.98	2.70	2,682,993

2.3.2.1.2 Alternative 2 – Basic Run with Elephant Trunk Closed Flex Option

This alternative maintains all of the provisions from Alternative 1, but handles access within the Mid-Atlantic Access Area differently. In Alternative 2, the Elephant Trunk Rotational Closure would become an access area. LA vessels would have the option to fish an access area trip in this area, or they could elect to fish that trip in the Mid-Atlantic access area. This option would allow the LA fishery to more broadly distribute their effort within Mid-Atlantic access areas. Dredge and HabCam surveys of the Elephant Trunk area indicate that the majority of the biomass in the area is concentrated within the rotational closure. Size frequency plots from HabCam data also suggest that there are several cohorts of varying sizes (recruits and pre-recruits) in the Rotational Closure. The overall intent of this alternative is to reduce discard and incidental mortality on small scallops by distributing effort that would have been fished in the MAAA into an area with known concentrations of pre-recruits and exploitable animals. Access to the Elephant Trunk Rotational Closure/Access Area would be prohibited from July 1 – September 30 to reduce discard mortality, and vessels would be limited to 1 VMS declaration into the area.

The specific allocations associated with this specification alternative are:

- Total FY2016 projected catch for this alternative would range from 47.3 million pounds – 51.1 million pounds depending on the DAS sub-option that is selected. (from all sources of catch and areas)
- LA sub-ACL would be 95,167,497 pounds and the LAGC IFQ sub-ACL is 5,538,849 pounds (based on 13 month FY prorated at 13/12ths).
- Access areas open to the fishery under this alternative are: the Mid-Atlantic Access Areas (1 trip), Elephant Trunk Rotational (Closure) Area (1 trip), Closed Area 2 South (1 trip), and the Nantucket Lightship (1 trip). Each LA FT vessels would be allocated 72,000 pounds (18,000 per AA area trip, trip limit).
- PT and Occ AA allocations would be set at 28,800 pounds for PT and 6,000 pounds for occasional vessels. PT vessels trip limit would be 14,400 lbs, and vessels would be allowed to fish up to 1 trip in the NLS, CAII, and ETC (if opened), and up to 2 trips in

the MAAA. Occ vessels would be eligible to fish their 6,000 lb trip in any AA area open to the fishery.

- The Closed Area II Extension Rotational Closed Area (Closed in FW27), would remain closed.
- There would be a seasonal closure of ETC area from July 1 – September 30.
- LAGC Incidental target TAC remains at 50,000 pounds.

2.3.2.1.2.1 Sub-Option 1 – Basic Run with DAS set at 30 DAS (F=0.44)

This sub-option would set the DAS at 30 for the FT LA component, which would result in an open area F=0.44.

- 30.00 DAS for LA FT vessel, 12.00 DAS for LA PT vessel, and 2.50 DAS for LA occasional vessels. All DAS allocations will be adjusted to allow for flexibility provided under FW26 for vessels to declare out of the fishery at Cape May and steam off the clock. The DAS reduction is 0.14 for FT LA vessels and 0.06 for PT LA vessels.
- The LAGC IFQ Quota would be approximately 2.58 million pounds.

2.3.2.1.2.2 Sub-Option 2 – Basic Run with DAS set at F=0.40

Sub-Option 2 would set the FT LA DAS at 27.56, which is expected to result in an F=0.4 in the open areas.

- 27.56 DAS for LA FT vessel, 11.02 DAS for LA PT vessel, and 2.30 DAS for LA occasional vessels. All DAS allocations will be adjusted to allow for flexibility provided under FW26 for vessels to declare out of the fishery at Cape May and steam off the clock. The DAS reduction is 0.14 for FT LA vessels and 0.06 for PT LA vessels.
- The LAGC IFQ Quota would be approximately 2.47 million pounds.

2.3.2.1.2.3 Sub-Option 3 – Basic Run with DAS set at F=0.48

Sub-Option 3 would set the FT LA DAS at 32.44, which is expected to result in an F=0.48 in the open areas.

- 32.44 DAS for LA FT vessel, 12.98 DAS for LA PT vessel, and 2.70 DAS for LA occasional vessels. All DAS allocations will be adjusted to allow for flexibility provided under FW26 for vessels to declare out of the fishery at Cape May and steam off the clock. The DAS reduction is 0.14 for FT LA vessels and 0.06 for PT LA vessels.
- The LAGC IFQ Quota would be approximately 2.68 million pounds.

Table 9 - Comparison of DAS sub-options associated with Alt. 2 Basic Run and ETC Flex Option.

	F rate	FT	PT	Occ	LAGC IFQ
Sub-Option 1	F=0.44	30.00	12.00	2.50	2,579,320
Sub-Option 2	F=0.40	27.56	11.02	2.30	2,471,161
Sub-Option 3	F=0.48	32.44	12.98	2.70	2,682,993

2.3.2.1.3 Default measures for 2018

The PDT recommends that default measures for the limited access fishery include DAS at 75% of the projected DAS allocation for 2017, and one access area trip in the MAAA at 18,000 for FT LA vessels. The PDT also recommends that IFQ quota allocations be set at 75% of the 2017 values at the start of the fishing year. The PDT notes that both DAS and IFQ quota will need to be retroactively reduced from the 2017 default values set through FW27.

2.3.2.2 Fishery Allocations to LAGC IFQ Component

The LAGC IFQ fishery is allocated a fleet wide 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 are 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. This action is considering several allocation options, as well as several area options depending on which areas are open to the scallop fishery in FY2017. In addition to No Action, the PDT developed…

2.3.2.2.1 Allocation of LAGC IFQ Trips in Access Areas

2.3.2.2.1.1 Alternative 1 – No Action (851 trips – Default Measures)

2.3.2.2.1.2 Alternative 2 – Same AA Proportion as LA (Range of 2,120 – 2,129 trips)

This option is based on applying the same proportion of total catch coming from access areas for the overall fishery. For example, under the basic run at 30 DAS, 49% of the total projected catch is from access areas and 51% is from open areas. Therefore, the same 49% is applied to the overall LAGC IFQ allocation that equates to about 1.27 million pounds or 2,125 trips at 600 pounds per trip. This is the method that was used in Framework 26 and Framework 27. The following table describes the range of potential AA trips associated with each DAS sub-option in this section.

Table 10 - Number of LAGC IFQ access area trips associated with each DAS/F rate option in Section 2.3.

	Proportion of total landing from AA	LAGC Trips
30.00 DAS (F=0.44)	49%	2,125
27.56 DAS (F=0.40)	51%	2,120
32.44 DAS (F=0.48)	48%	2,129

2.3.2.2.1.3 Alternative 3 – 5.5% of the Access Area Allocations (2,230 trips)

This option is based on applying the same allocation value for the overall ABC/ACL, which is 5.5% for the LAGC fishery. When 5.5% is applied to the overall access area allocations for FY2017, that equates to about 1.34 million pounds or 2,230 trips. This method has been used in previous actions.

2.3.2.2.2 LAGC IFQ Allocations (by area)

2.3.2.2.2.1 Alternative 1 – Equal Distribution to All Access Areas

This option would allocate LAGC IFQ AA trips to all open AAs.

2.3.2.2.2.2 Alternative 2 – Equal distribution based to all Access Areas, and Prorate the Equivalent of CA II trips evenly other Access Areas.

This option would allocated LAGC IFQ AA trips equally to all open access areas, and prorate LAGC CA II AA trip allocation evenly across all other open access areas (NLS, MAAA, and potentially the ETC).

2.3.2.2.2.3 Alternative 3 – Equal distribution based to all Access Areas, and Prorate the Equivalent of CA II trips 50% to NLS and 50% to MAAA/ETC.

This option would allocated LAGC IFQ AA trips equally to all open access areas, and prorate LAGC IFW CAII AA trip allocations by 50% to the NLS AA, and 50% to the MAAA/ETC AA.

Table 11 - Number of IFQ AA trips by area for each trip allocation alternatives for default measures trips (851).

Default Measures			MAAA	ETC	NLS	CA II S
Option 1 - Equal Shares	**Basic Run**	**# IFQ Trips**	**0.25**	**0**	**0.25**	**0.25**
	30 DAS, F=0.4, F=0.48	851	426	n/a	213	213
	Basic Run w/ ETC Flex	**# IFQ Trips**	**0.25**	**0.25**	**0.25**	**0.25**
	30 DAS, F=0.4, F=0.48	851	213	213	213	213
Option 2 - Equal Shares and Distribute CA II trips Evenly Across AA	**Basic Run**	**# IFQ Trips**	**0.66**	**0**	**0.34**	**0**
	30 DAS, F=0.4, F=0.48	851	562	n/a	289	n/a
	Basic Run and ETC Flex	**# IFQ Trips**	**0.333**	**0.333**	**0.333**	**0**
	30 DAS, F=0.4, F=0.48	851	283	283	283	n/a
Option 3 - Equal Shares and Distribute CA II trips Evenly Between NLS and MAAA/ETC (50/50)	**Basic Run**	**# IFQ Trips**	**0.625**	**0**	**0.375**	**0**
	30 DAS, F=0.4, F=0.48	851	532	n/a	319	n/a
	Basic Run and ETC Flex	**# IFQ Trips**	**0.3125**	**0.3125**	**0.375**	**0**
	30 DAS, F=0.4, F=0.48	851	266	266	319	n/a

Table 12 - Number of IFQ AA trips by area for each trip allocation alternatives when setting number of trips equal to LA component (2,120-2,129 trips).

Section 2.3.2.2.1.2 Alt. 2 - Same Proportion As LA			**MAAA**	**ETC**	**NLS**	**CA II S**
Section 2.3.2.2.2.1 Alt. 1 - Equal Distribution of Trips to All Access Areas	**Basic Run**	**# IFQ Trips**	**0.25**	**0**	**0.25**	**0.25**
	30 DAS (49% AA landings)	2,125	1,062	n/a	531	531
	F=0.40 (51% AA landings)	2,120	1,060	n/a	530	530
	F=0.48 (48% AA landings)	2,129	1,064	n/a	532	532
	Basic Run w/ ETC Flex	**# IFQ Trips**	**0.25**	**0.25**	**0.25**	**0.25**
	30 DAS (49% AA landings)	2,125	531	531	531	531
	F=0.40 (51% AA landings)	2,120	530	530	530	530
	F=0.48 (48% AA landings)	2,129	532	532	532	532
Section 2.3.2.2.2.2 Alt. 2 - Equal Shares and Distribute CA II trips Evenly Across AA	**Basic Run**	**# IFQ Trips**	**0.67**	**0**	**0.33**	**0**
	30 DAS (49% AA landings)	2,125	1,424	n/a	701	n/a
	F=0.40 (51% AA landings)	2,120	1,421	n/a	700	n/a
	F=0.48 (48% AA landings)	2,129	1,426	n/a	702	n/a
	Basic Run and ETC Flex	**# IFQ Trips**	**0.3333**	**0.3333**	**0.333**	**0**
	30 DAS (49% AA landings)	2,125	708	708	708	n/a
	F=0.40 (51% AA landings)	2,120	707	707	706	n/a
	F=0.48 (48% AA landings)	2,129	710	710	709	n/a
Section 2.3.2.2.2.3 Alt. 3 - Equal Shares and Distribute CA II trips Evenly	**Basic Run**	**# IFQ Trips**	**0.625**	**0**	**0.375**	**0**
	30 DAS (49% AA landings)	2,125	1,328	n/a	797	n/a
	F=0.40 (51% AA landings)	2,120	1,325	n/a	795	n/a
	F=0.48 (48% AA landings)	2,129	1,330	n/a	798	n/a

Between NLS and MAAA/ETC (50/50)	**Basic Run and ETC Flex**	**# IFQ Trips**	**0.3125**	**0.3125**	**0.375**	**0**
	30 DAS (49% AA landings)	2,125	664	664	797	n/a
	F=0.40 (51% AA landings)	2,120	663	663	795	n/a
	F=0.48 (48% AA landings)	2,129	665	665	798	n/a

Table 13 - Number of IFQ AA trips by area for each trip allocation alternatives when setting number of trips at 5.5% of AA landings (2,230 trips).

Section 2.3.2.2.1.3 Alt. 3. - 5.5% of AA Landings			**MAAA**	**ETC**	**NLS**	**CA II S**
Section 2.3.2.2.2.1 Alt. 1 - Equal Distribution of Trips to All Access Areas	**Basic Run**	**# IFQ Trips**	**0.25**	**0**	**0.25**	**0.25**
	30 DAS, F=0.4, F=0.48	2,230	1,115	n/a	558	558
	Basic Run w/ ETC Flex	**# IFQ Trips**	**0.25**	**0.25**	**0.25**	**0.25**
	30 DAS, F=0.4, F=0.48	2,230	558	558	558	558
Section 2.3.2.2.2.2 Alt. 2 - Equal Shares and Distribute CA II trips Evenly Across AA	**Basic Run**	**# IFQ Trips**	**0.66**	**0**	**0.34**	**0**
	30 DAS, F=0.4, F=0.48	2,230	1,472	n/a	758	n/a
	Basic Run and ETC Flex	**# IFQ Trips**	**0.333**	**0.333**	**0.333**	**0**
	30 DAS, F=0.4, F=0.48	2,230	743	743	743	n/a
Section 2.3.2.2.2.3 Alt. 3 - Equal Shares and Distribute CA II trips Evenly Between NLS and MAAA/ETC (50/50)	**Basic Run**	**# IFQ Trips**	**0.625**	**0**	**0.375**	**0**
	30 DAS, F=0.4, F=0.48	2,230	1,394	n/a	836	n/a
	Basic Run and ETC Flex	**# IFQ Trips**	**0.3125**	**0.3125**	**0.375**	**0**
	30 DAS, F=0.4, F=0.48	2,230	697	697	836	n/a

2.4 PRORATION OF ALLOCATIONS TO ACCOUNT FOR 13 MONTH FY IN FY2017

Amendment 19 to the Scallop FMP modifies the start of the scallop fishing year from March 1 to April 1, beginning in FY2018. This change means that the 2017 fishing year will be a month longer (13 months). Alternatives in this section (2.3.2.2) consider whether or not to prorate DAS and LAGC IFQ allocations to account for a longer fishing year. The following options would only apply for FY2017, as the fishery will operate on a 12-month fishing year starting on April 1, 2018.

2.4.1 Alternative 1 – No Action (Based Allocations on 12 month FY)

Under No Action, there would be no change to the allocation for FY2017. The DAS and LAGC IFQ allocations specified through FW28 would be based on a twelve month fishing year, consistent with past approaches. There would be no change to the allocations specified by the Council is Section 2.3, which are based on a twelve month fishing year.

2.4.2 Alternative 2 – Prorate allocations for a 13 month FY by 13/12^{ths}

The 2017 fishing year will be 13 months, and run from March 1, 2017 to March 31, 2018. This alternative would prorate the twelve month DAS and LAGC IFQ specifications in Section 2.3 to account for the longer fishing year. As access area allocations will not be prorated through this option, the prorated LAGC IFQ allocation would be proportional with the increase in landings associated with LA DAS (n prorated LA DAS x 2017 LPUE).

Option 1 would increase the FY2017 allocation based on an additional month being added to the fishing year. The proration would be exclusively based on additional time added within the FY. This option would increase the 2017 DAS and IFQ allocations by roughly 8%.

2.4.3 Alternative 3 – Prorate 2017 allocation based on March fishing activity

Option 2 would prorate the 2017 DAS and LAGC IFQ allocations based on recent DAS usage and LAGC IFQ landings from FY2013 – FY 2015 during the month of March. Both LA and LAGC IFQ components utilized around 4.7% of their DAS and IFQ allocations during March. Therefore, if this option is selected the DAS and corresponding IFQ allocation would be increased by 4.7%.

Table 14 - Realized increase in DAS and IFQ lbs under Alt.2 (Section 2.4.2) and Alt. 3 (Section 2.4.3).

	Additional DAS	Additional IFQ lbs
Section 2.4.2	**13/12th (0.08)**	**LAGC IFQ 5.5%**
Status Quo	2.76	110,205
No Action	2.76	108,890
SQ Basic	2.40	105,603
SQ ETC	2.40	105,603
30 DAS (F=0.44)	2.40	106,106

F=0.4	2.20	98,567
F=0.48	2.60	113,452
Section 2.4.3	**March (0.047)**	**LAGC IFQ 5.5%**
Status Quo	1.62	64,745
No Action	1.62	63,973
SQ Basic	1.41	62,042
SQ ETC	1.41	62,042
30 DAS (F=0.44)	1.41	62,337
F=0.4	1.30	57,908
F=0.48	1.52	66,653

Table 15 - Recent LA and LAGC IFQ fishing activity during the month of March, FY2013 - FY2015.

FY	% of LA DAS used	# of LA DAS used	% of LAGC IFQ landings	LAGC IFQ landings (lbs)
2015	4.40%	530	4.60%	124,122
2014	4.80%	559	3.40%	75,827
2013	4.80%	593	6.10%	135,561
Average	4.67%	561	4.70%	111,837

Table 16 - Comparison of prorated FY2017 DAS and corresponding IFQ allocations.

	FW 28 Measure	2.3.1.1.1	2.3.1.1.2	2.3.1.1.3	2.3.1.1.4	2.3.2.1.1.1	2.3.2.1.1.2	2.3.2.1.1.3	2.3.2.1.2.1	2.3.2.1.2.2	2.3.2.1.2.3
	Description	Basic Run and 30 DAS	Basic Run + ETC Flex at 30 DAS	Status Quo From FY2016 (FW27)	No Action	Basic Run and 30 DAS	Basic Run and DAS set at F=0.4	Basic Run and DAS set at F=0.48	Basic Run + ETC Flex at 30 DAS	Basic+ETC Flex and DAS set at F=0.4	Basic+ETC Flex and DAS set at F=0.48
2.4.1	FT LA DAS	30	30	34.55	34.55	30	27.56	32.44	30	27.56	32.44
	IFQ Quota (% share)	5.5 mil (10.5%)	5.5 mil (10.5%)	4.4 mil. (9.4%)	4.4 mil. (12.5%)	2.58 mil. (5.5%)	2.47 mil. (5.5%)	2.68 mil. (5.5%)	2.58 mil. (5.5%)	2.47 mil. (5.5%)	2.68 mil. (5.5%)
2.4.2	LA DAS (8%)	32.40	32.40	37.31	37.31	32.40	29.76	35.04	32.40	29.76	35.04
	IFQ (8%)	5.64 mil.	5.64 mil.	4.58 mil.	4.58 mil.	2.69 mil.	2.57 mil.	2.8 mil.	2.69 mil.	2.57 mil.	2.8 mil.
2.4.3	LA DAS (4.7%)	31.41	31.41	36.17	36.17	31.41	28.86	33.96	31.41	28.86	33.96
	IFQ (4.7%)	5.6 mil.	5.6 mil.	4.55 mil.	4.55 mil.	2.64 mil.	2.53 mil.	2.75 mil.	2.64 mil.	2.53 mil.	2.75 mil.

2.5 ADDITIONAL MEASURES TO REDUCE FISHERY IMPACTS

2.5.1 Alternative 1 – No Action (Default – RSA compensation fishing restricted to open areas)

RSA compensation fishing would be restricted to open areas only. Vessels with RSA poundage would not be allowed to harvest RSA compensation from access areas.

2.5.2 Alternative 2 – RSA in any area open to the scallop fishery

RSA compensation fishing would be permitted from any area open to the scallop fishery, including open areas and any access areas opened in this action. Vessels with RSA poundage could harvest RSA compensation from any area open to the scallop fishery.

2.5.3 Alternative 3 – RSA compensations fishing only in MAAA and open areas (excluding NGOM Management Area)

RSA compensation fishing would be permitted only in the Mid-Atlantic Access Area and in open areas, excluding the NGOM Management Area. Therefore, RSA compensation fishing would not be permitted in the NGOM, the NLS AA, the CA II S AA, and the ETC AA (if opened). This provision has been used in the past to reduce impacts on small scallops and overall mortality in an area.

Rationale: RSA compensation would be prohibited in several areas. There would be no RSA compensation fishing allowed in the NGOM management area. This provision would be intended to reduce impacts on smaller scallops in the NGOM, and curb overall mortality in the management area. A recent recruitment event within the southern portion of the NGOM management area has led to a substantial increase in biomass estimates since the area was last assessed in 2012.

There would be no RSA compensation fishing allowed in the CA II S access area. This provision would be intended to reduce impacts on Georges Bank yellowtail flounder bycatch in the area. The scallop fishery is allocated 16% of the Georges Bank yellowtail flounder ABC, and the scallop fishery share of the US allocation is expected to be around 30 mt for the coming FY. This measure is intended to compliment other scallop measures intended to reduce the bycatch of Georges Bank yellowtail flounder such a prohibition on the possession of the stock, a seasonal closure from Aug. 15 – Nov. 15, the use of a 10” twine top, and the continuation of a bycatch avoidance program.

There would be no RSA compensation fishing allowed in the NLS access area. This provision would be intended to curb overall mortality in the NLS access area this coming FY. Prohibiting compensation fishing in this area is intended to reduce the potential for higher fishing mortality in the area keep realized F in the area consistent with model estimates.

There would be no RSA compensation fishing allowed in the Elephant Trunk Rotational access area (if opened through this FW). This provision would be intended to reduce impacts on high densities of small scallops in the area. The dominant year class in this area has strong growth potential, and prohibiting RSA compensation fishing is likely to reduce the potential for higher fishing mortality in the area.

2.6 MODIFICATIONS TO CLOSED AREA I ACCESS AREA BOUNDARY

Modifications to the Closed Area I Access Area boundary are contingent upon the final rule of Omnibus Habitat Amendment 2. The Council may select either Alternative 1 or Alternative 2. If Alternative 2 is preferred, the Council may select either sub-Option 1 or sub-Option 2.

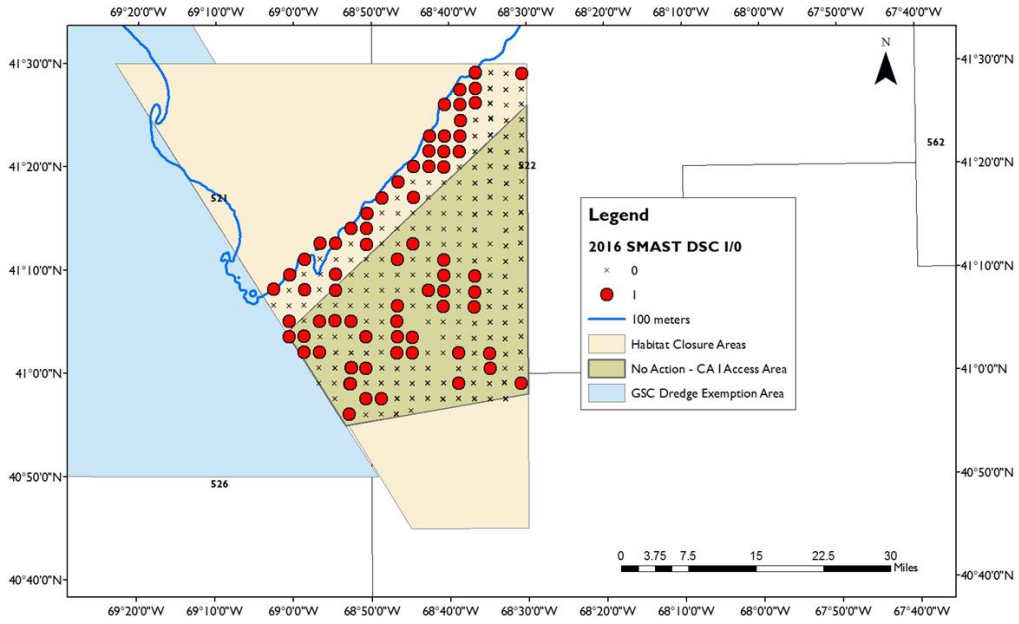
2.6.1 Alternative 1 - No Action

There would be no change to the Closed Area I Access Area boundary as defined in XXXX.

Table 17 - Current Coordinates of CA I Access Area.

No Action		
Point	Latitude	Longitude
CAIA1	41°26′ N.	68°30′ W.
CAIA2	40°58′ N.	68°30′ W.
CAIA3	40°54.95′ N.	68°53.37′ W.
CAIA4	41°04′ N.	69°01′ W.
CAIA1	41°26′ N.	68°30′ W.

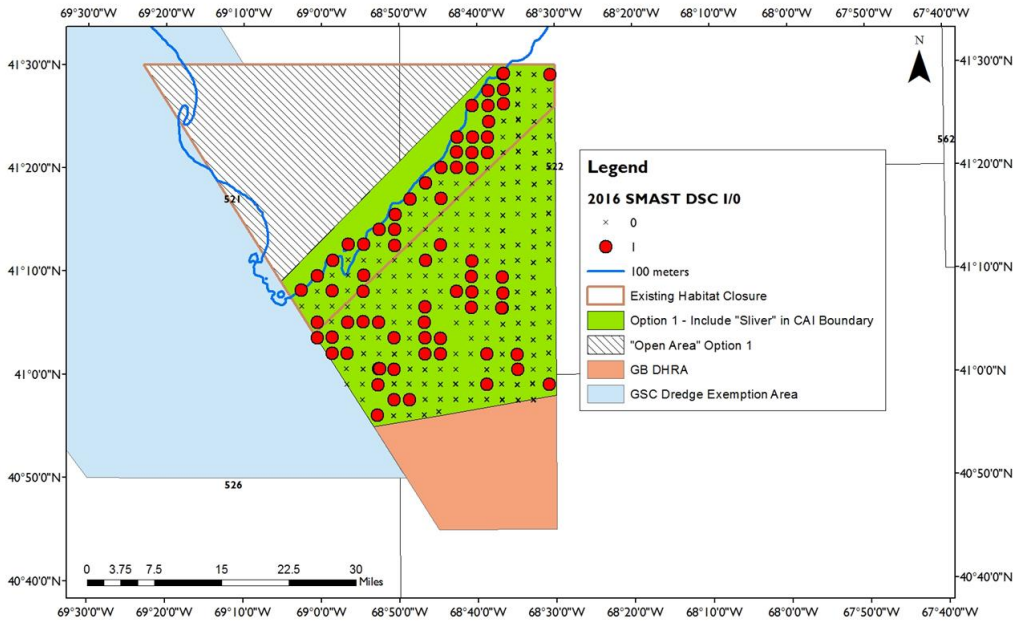
Figure 1 - Current Closed Area I Access Area Configuration



2.6.3 Alternative 2 – Expand CA I AA to include the "sliver"

The Closed Area I Access Area boundary would be modified, consistent with recent modifications to groundfish closed areas and habitat closures through the OHA2 (TBD, pending final rule). Alternative 2 would expand the boundary of existing Closed Area I access area to include a "sliver" of biomass just to the north of existing northern boundary.

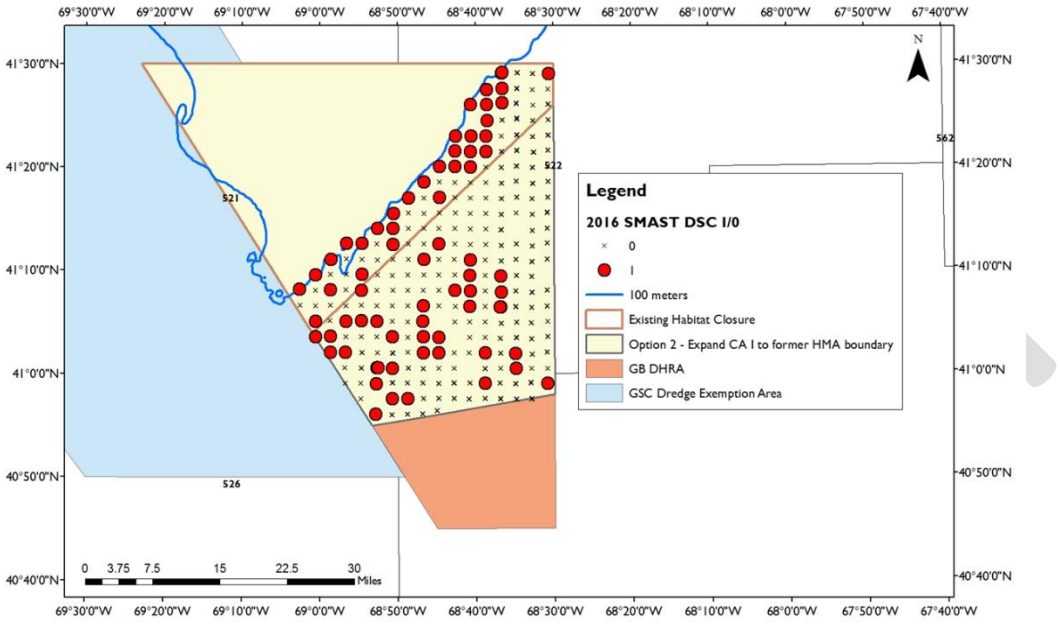
Figure 2 - Configuration of Alternative 2, Expansion of CA I AA (shown in green).



2.6.5 Alternative 3 – Expand CA I AA Boundary to include the CA I Habitat Management Area

The Closed Area I Access Area boundary would be modified, consistent with recent modifications to groundfish closed areas and habitat closures through the OHA2 (TBD, pending final rule). Alternative 3 would expand the boundary of existing Closed Area I access area to include a "sliver" of biomass just to the north of existing northern boundary.

Figure 3 - Configuration of Alternative 3 (formerly Option 2), expansion of the CA I AA.



2.7 CLOSED AREA I ACCESS AREA ALLOCATION

The Council is considering specifying an allocation for access to Closed Area I to facilitate the harvest of LA carryover allocations, contingent upon the final decision of the Omnibus Habitat Amendment II final rule. There are approximately 1.6 million CA I carryover pounds that were allocated through earlier framework actions, but not harvested due to early closure of the area through Emergency Action.

The Council will also be considering changes to the configuration of the CA I Access Area. Alternatives in Section 2.6 consider expanding the area to include considerable biomass of older animals in an area to the north of CA I AA that is currently closed to the fishery.

2.7.1 Alternative 1 – No Action

A fishery allocation to Closed Area I, as modified in Section 2.6 would not be specified in this framework. There would be no access to CA I – irrespective of action taken in Section 2.6 – in FY2017, unless an allocation to this area is specified through a subsequent Council action.

2.7.2 Alternative 2 – Allocate existing LA Carryover pounds into CA I

Alternative 2 would allocate approximately 1.6 million CA I carryover pounds that were allocated through earlier framework actions in FY2017. This measure, if selected, would be

contingent upon the opening of the CA I HMA north area through the Final Rule of OHA2, which is expected sometime in mid-2017.

2.8 POSSESSION OF SHELL STOCK INSHORE OF DAYS AT SEA MONITORING LINE

2.8.1 Alternative 1 – No Action

There would be no change to existing restrictions on the possession of shell stock inshore of the day-at-sea demarcation line. A vessel with a limited access or general category scallop permit that fishes or transits any are south of 42°20' N latitude during any portion of a trip, it will be prohibited from possessing more than 50 US bushels when inshore of the day-at-sea monitoring line and from landing more than 50 US bushels from a fishing trip. Scallop shell stock must be compliant with the 3½-inch minimum size shell height standards (§648.50). Any vessel fishing in the state waters exemption program (§648.54) would also be exempt from the scallop shell stock limit.

Rationale: This measure is intended to allow a limited fishery to continue north of 42°20 N. latitude by some vessels that have traditionally landed in-shell scallops.

2.8.2 Alternative 2 – Restrict the Possession of Shell Stock Inshore of DAS Demarcation Line

If a vessel with a limited access or general category scallop permit fishes or transits inshore of the day-at-sea monitoring line during any portion of a trip, it will be prohibited from possessing more than 50 US bushels when inshore of the day-at-sea monitoring line and from landing more than 50 US bushels from a fishing trip. Scallop shell stock must be compliant with the 3½-inch minimum size shell height standards (§648.50).

Any vessel fishing in the state waters exemption program (§648.54) would also be exempt from the scallop shell stock limit. NMFS would monitor trips through the VMS program.

Rationale: The FMP relies on day-at-sea restrictions and crew limits to achieve its mortality targets and prevent overfishing. As catch rates rise, it becomes more attractive for vessels to deckload sea scallops and shuck them inside of the day-at-sea monitoring line, thereby circumventing the regulation's intent. Recently, limited access vessels began fishing in areas north of 42°20' N latitude within the NGOM management area, where there is no limit on the number of bushels a vessel may possess inside the demarcation line. This measure would restrict the number of bushels that limited access or general category vessels can possess to 50 when inshore of the day-at-sea monitoring line, effectively expanding an existing provision that only applied to fishing activity south of 42°20' N latitude. Another adverse effect is that the discarded scallop shells and viscera may also cover important habitats and foul inshore waters, especially where temperatures are high and currents are slow. This measure will prevent scallop vessels from possessing excessive amounts of shell stock inshore of the day-at-sea monitoring line, eliminating the incentive to deckload and shuck scallops "off the clock". The 50 US bushel limit will enable the vessels to bring a moderate amount of shell stock in to avoid poor weather and/or to land some shell stock for a small market for whole scallops or scallop parts.

3.0 CONSIDERED AND REJECTED ALTERNATIVES

3.1 MANAGEMENT UNCERTAINTY BUFFER FOR THE LAGC IFQ COMPONENT

Measures adopted during and since Amendment 15 have introduced the potential for management uncertainty in the LAGC IFQ fishery. These include mortality from carry-over allowances, and ability of the FMP to monitor and enforce all catch. The PDT evaluated potential sources of management uncertainty, focusing of the annual carryover and potential utilization of carryover pounds in the subsequent fishing year. The PDT noted that carryover is relatively stable year to year in this fishery. The PDT also noted that the IFQ component has not exceeded its sub-ACL since FY2010.

Table 18 - LAGC IFQ Carryover (lbs) from FY 2010 - FY 2016.

Fishing Year	Sum of carryover	Sum of base allocation	% carryover
2010	0	2,329,500	0%
2011	131,881	3,044,151	4%
2012	194,049	3,273,502	6%
2013	301,354	2,494,866	12%
2014	209,897	2,375,277	9%
2015	243,041	2,939,585	8%
2016	312,796	4,369,333	7%
Total	1,393,018	20,826,214	7%

3.2 SPATIAL MANAGEMENT ALLOCATION CEILING

The PDT, AP, and Committee discussed the concept of applying a ceiling for the LAGC IFQ could be set at different F rates under a spatial management scenario. In practice, these options would have specified the maximum potential allocation for a given fishing year. The actual allocation to both components would be based on projected landings. ADD ADDITIONAL DESCRIPTION.

4.0 AFFECTED ENVIRONMENT

4.1 ATLANTIC SEA SCALLOP RESOURCE

4.1.1 Benchmark Assessment

Ggg

4.1.2 FY2017 as a Thirteen Month Fishing Year

The start of the scallop fishing year was modified from March 1 to April 1 through Amendment 19 to the Scallop FMP (approved XXXXXXXXX, 2016). The Council's Science and Statistical Committee (SSC), along with the Scallop PDT discussed the implications of this onetime event during the development of Framework 28. In particular, both the SSC and PDT had focused discussions on how to prorate fishery specifications to account for an additional month in FY2017.

Table 19 - Percent of allocation utilization (LA DAS & IFQ Landings) in March for FY 2013-FY 2015

Percent usage in March		
FY	LA DAS usage	LAGC IFQ landings
2015	4.40%	4.60%
2014	4.80%	3.40%
2013	4.80%	6.10%
Average	4.66%	4.70%

Table 20 - Recent fishing activity (LA DAS usage & IFQ landings) in March for FY 2013-FY 2015

Fishing Activity in March		
FY	LA DAS usage	LAGC IFQ landings
2015	530	124,122
2014	559	75,827
2013	593	135,561
Average	561	111837

Table 21 - Comparison of FY 2017 OFL and specification estimates for a 13 month FY prorated at 13/12th and by recent March fishing activity

	Multiplier	1.08	Multiplier	1.0466
Proration	"13/12ths"		"March DAS"	
OFL	75,485	166,415,938	72,925	160,772,105
ABC/ACL	46,737	103,037,447	45,152	99,543,121
Incidental	23	50,706	23	50,706
RSA	567	1,250,021	567	1,250,021
Observer Set-Aside	467	1,030,374	452	995,431
ACL for fishery	45,680	100,706,346	44,110	97,246,962
LA ACL	43167	95,167,497	41684	91,898,379
LAGC IFQ ACL	2512	5,538,849	2426	5,348,583
LAGC IFQ	2284	5,035,317	2206	4,862,348
LA w/GC IFQ	228	503,532	221	486,235

Table 22 - Original 2017 and 2018 OFL and ABC estimates, including 2016 OFL and ABC values.

Year	MABms	GBBms	TotBms	ExplBms	ABC_Land	ABC_Disc	ABC_Tot	OFL_Land	OFL_Disc	OFL_Tot
2016	93798	141174	234971	52503	37852					68418
2017	124645	183983	308628	106681	43142	13850	56992	52184	17494	69678
2018	127899	182259	310158	157768	50946	13461	64407	61265	17004	78269

4.1.3 Summary of the 2016 surveys

4.1.3.1 Overview of the 2016 surveys

The Atlantic Sea Scallop resource was surveyed by groups/methods: VIMS dredge survey of the Mid-Atlantic, Nantucket Lightship and surrounds, and Closed Area II and surrounds; SMAST large and DSC camera industry-funded detailed survey of Closed Area I Access Area and surrounds, and Nantucket Lightship and surrounds; WHOI HabCam V4 on Northern Edge area of Georges Bank; Habcam Group (Arnie's Fisheries) HabCam v3 survey of the Elephant Trunk; and the federal NEFSC combined survey including dredge tows on GB and Habcam V4 of both the MA and GB regions. Overall, the resource area was well sampled in 2016 and the PDT has access to very extensive survey data for biomass and fishery projections for Framework 28.

4.1.3.2 VIMS dredge survey

The VIMS 2016 survey season included three surveys between mid-May to late June. The VIMS dredge survey continued its use of a random stratified survey to increase precision. It covered the NMFS shellfish strata as well as some additional areas in the Mid-Atlantic Bight (Block Island to Long Island Sound), the NLCA and surrounds, and CA II and surrounds. The 2016 VIMS work includes several secondary project objectives, such as gear performance, scallop biology and product quality, finfish bycatch, scallop predators, and additional sampling requests. Four vessels (3 veteran, 1 new to the survey) were utilized. Approximately 5,000

SH:MW samples were taken during the MAB survey (15 per station). VIMS collected ~1,000 SH/MA samples from the both the NLCA and CA II surveys (again, 15 per station). High spatial and temporal variability in SH:MW relationship in the MAB and CA II is likely a function of depth for each sub-area. For NLCA, significantly different relationships between SAMS regions and zones is likely a function of both depth and scallop density. The PDT discussed that when evaluating SH/MW relationships, animals in different spatial areas my follow different spawning cycles.

The VIMS group highlighted four take home points: 1) biomass in MA closed areas, as well as the NLCA and CA II access areas and surrounds appears to be strong; 2) general lack of strong recruiting year class across all surveyed areas; 3) managers will need to consider how to handle the age 4 scallops in the NLS if expected growth is not realized. This may result in a reduced contribution of yield to the fishery relative to the projections; and 4) continued and expanded presence of a nematode parasite observed in the scallop meats was observed in portions of the MA region.

4.1.3.3 SMAST Drop Camera

The 2016 SMAST scallop survey season included two industry funded projects to conduct intensive surveys (1.5nm grid) of CA I, as well as NLS and surrounds. All surveys included a large camera, small camera, as well as a digital still camera. The surveys completed 549 stations on two separate cruises in June, starting with CA I. A comparison of survey results from 2015 to 2016 for the NLSA indicated that average shell height, total average biomass, and exploitable average biomass all increased. However, abundance of animals appears to have declined in two sub-regions of NL. Shell height frequencies in the NLS from large camera data show the highest frequencies between 50mm and 100mm. The SMAST digital still camera (DSC) results suggest of 92 million lbs of total biomass in NLS-AC-S, about 12% is exploitable (11 million lbs). The DSC also detected a large biomass of scallops in the NLS closed area (72 million lbs, 33 million of which is exploitable). Roughly 30 million lbs of exploitable biomass was initially estimated for NLS access/open areas from 2016 DSC survey.

Scallops appear to be growing slower in the southern portion of the NLS. The PDT discussed slow growth rates at its August meeting, and questioned the assumption that these animals can grow 16-17mm per year at the depth and density they are being observed in the southern portion of the NLS. The PDT recommended that a new SH/MW relationship be developed for the southern portion of the NLS using VIMS survey data. Dr. Hart indicated that the L infinity values in the SAMS model could be reduced to account for this (~20 mm from 155mm).

In terms of the size frequency of observed scallops, the highest frequencies in the CA I large camera data were of animals 100mm and larger. The total estimate of biomass from the DSC in the CA I Access is about 3 million lbs (2 million lbs exploitable). The majority of the exploitable biomass remains in the closed "sliver" area just north of the CA I Access boundary. 2016 DSC results estimate 12 million lbs of biomass in CA I NA, of which 10 million lbs is exploitable. The Council voted to open the CA I NA through OHA2 action, but a final rule is not expected until the spring of 2017.

4.1.3.4 WHOI HabCam Survey

Researchers from the Woods Hole Oceanographic Institute (WHOI) led a survey of the northern edge of Georges Bank, which included the Northeast Reduced Impact Habitat Management

Area, the Northeast Habitat Management Area, and eastern Georges Shoal. The WHOI survey used HabCam v4 on the F/V Jersey Cape in partnership with Lund's Fisheries. Survey data suggests up to five cohorts of scallops within the footprint of the survey. The analysis used 85mm as a cutoff for exploitable biomass. Approximately 53 million lbs of total biomass (small, medium, exploitable) were estimated in the survey area, 46 million of which was considered exploitable at greater than 85mm. The majority of the biomass in the eastern Georges Shoal area was considered to be exploitable, ~14 million lbs. Smaller scallops were observed closer to the Canadian line, with pockets of larger animals observed in deeper areas to the north. The PDT discussed scallop meat quality in this area, with NEFSC staff commenting that meats observed in the federal dredge survey looked healthy.

4.1.3.5 HabCam Group/Arnie's Fisheries HabCam Survey

An intensive survey of the Elephant Trunk was conducted with Arnie's Fishery/HabCam Group using HabCam V3. The survey was conducted using the F/V Kathy Marie on a single cruise from July 9 to July 15. HabCam V3 was towed continuously for more than 700nm. The survey covered ~720 nm (with 2.5nm between transects) in the Elephant Trunk area, collecting 2.68 million images. Approximately 1/200 images was annotated (roughly 10,265). The survey estimated a total biomass of 26,039 mt in the ET open area, and 39,140 mt in the closed area. Highest concentrations of animals were observed in the southern portion of the ET closed area. Some pockets of recruitment were observed (26-50mm shell height) in the area, with the majority of potential recruitment in the 51-75mm range. The mean length frequency in the area was 79mm, which is consistent with data from the VIMS dredge survey.

4.1.3.6 Northeast Fisheries Science Center HabCam and Dredge Surveys

The 2016 federal survey included a dredge survey in portions of GB only (including the GSC) because VIMS covered the MA, CA II and extension, and NLS and extension. Habcam v4 was used in both regions, with results supplemented by the HabCam Group's survey of ET and the WHOI survey of the Northern Edge. Over 100,000 HabCam photos were manually annotated in 2016. The MA leg was conducted in late May and GB in June. Dr. Hart explained that about 1 in 50 images have been processed (one image every 25meters) and preliminary analysis of automated annotations is under way as well.

Survey highlights included high densities of 4 year old scallops in Nantucket Lightship Area and Extension, and 3 year old scallops in HCCA and Elephant Trunk. However, scallops in the southern portion of NLS (deep water) are growing very slowly. Patches of high densities of 6 year old scallops were observed in dredge tows and HabCam v4 of the northern portion of Closed Area I. Decent densities of scallops were seen in the southern portion of CA II AA, but scallops in the CA II extension area still small. She suggested that open area exploitable biomass will be moderate at best. Dr. Hart also noted that large quantities of sea stars and crabs were observed in the shallow portion of the HAPC on the Northern Edge.

Dr. Hart also presented a preliminary exploration of dredge efficiency in high densities of scallops. A comparison of 281 HabCam/dredge pairs from the 2016 survey were examined with at least 50 square meters of Habcam photos within a 0.75 sq nm of dredge tow and with at least minimal scallop densities. Dr. Hart reported that the apparent efficiency of dredge tows in high density areas were all below the expected survey efficiency of 0.4, suggesting that the dredge operates at reduced efficiency when scallop density is very high. The PDT had a lengthy

discussion on this issue. Dr. David Rudders explained that VIMS is in the middle of a two year study comparing 15 minute v. 10 minute tows. The PDT noted that dredge efficiency should be reviewed at the next benchmark assessment.

Figure 4 - 2016 VIMS dredge survey station in the Mid-Atlantic.

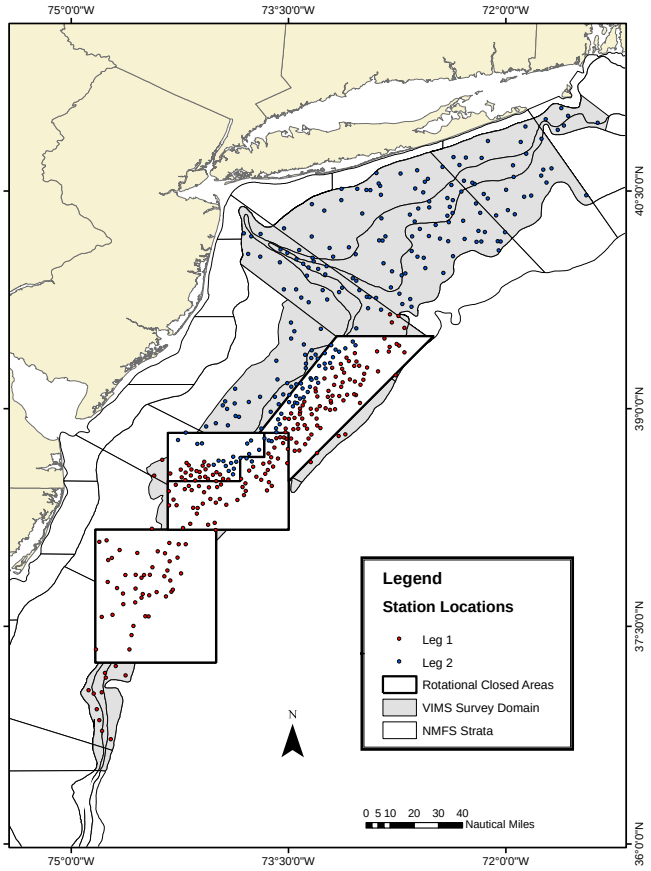


Figure 5 - 2016 dredge surveys of Georges Bank, including VIMS and federal NEFSC dredge survey.

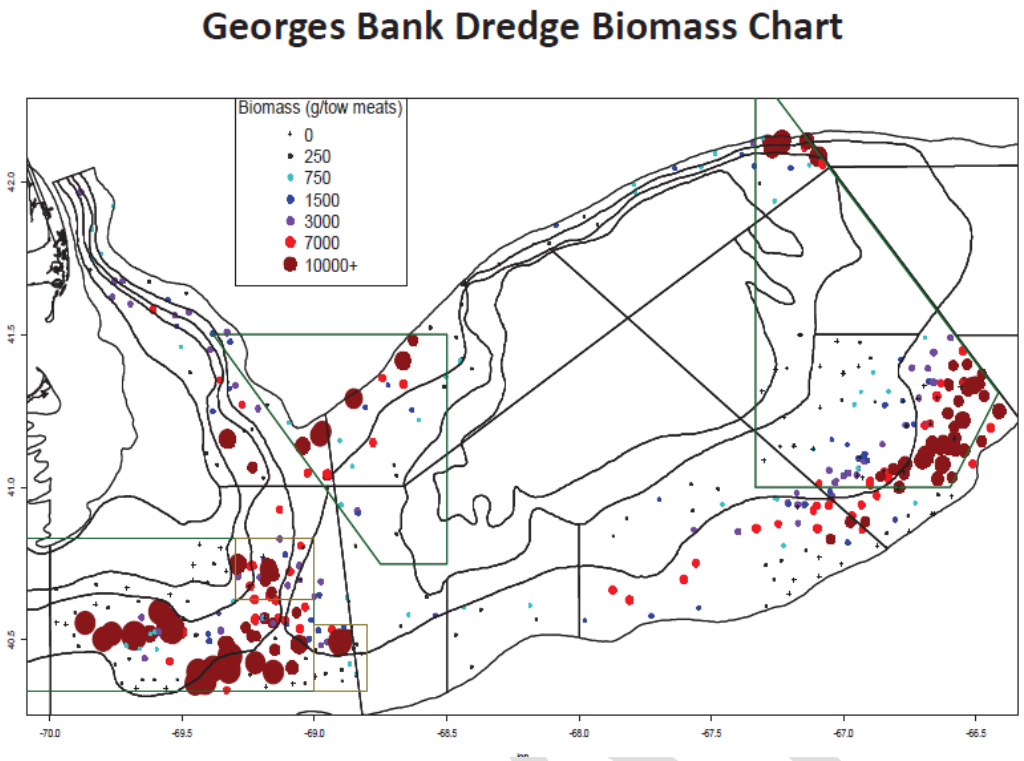


Figure 6 - 2016 SMAST NLS Survey Locations, including Large Camera data.

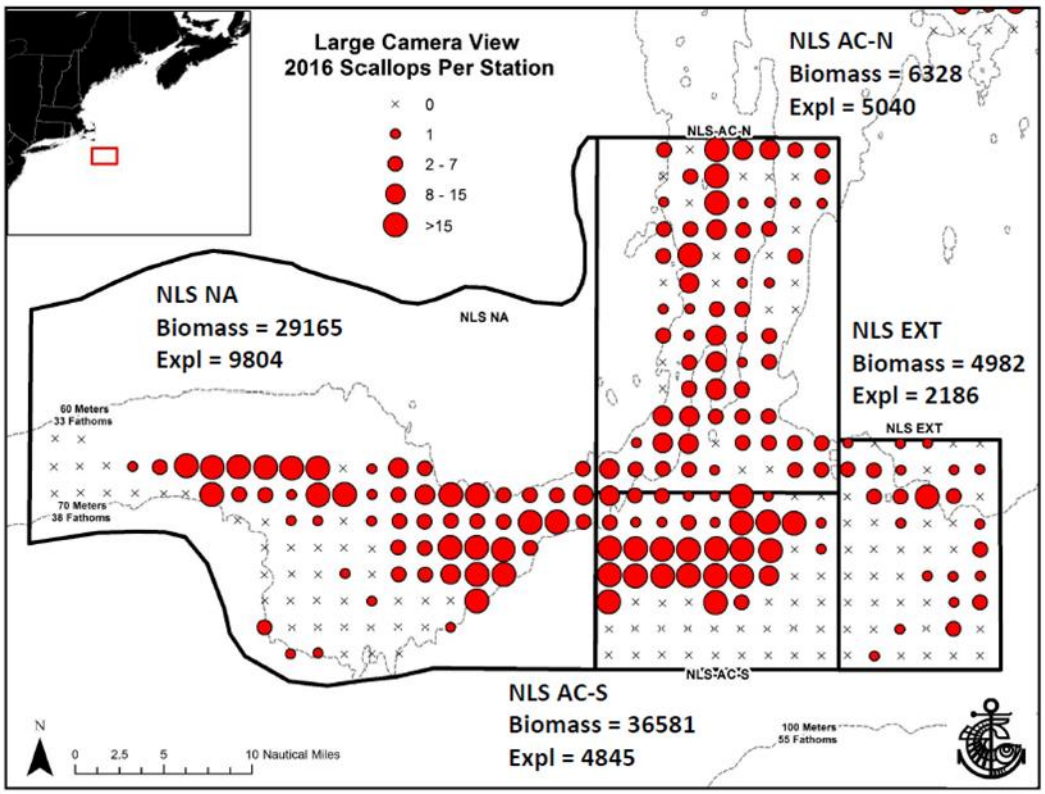


Figure 7 - 2016 SMAST CA I Survey stations, with Large Camera Data.

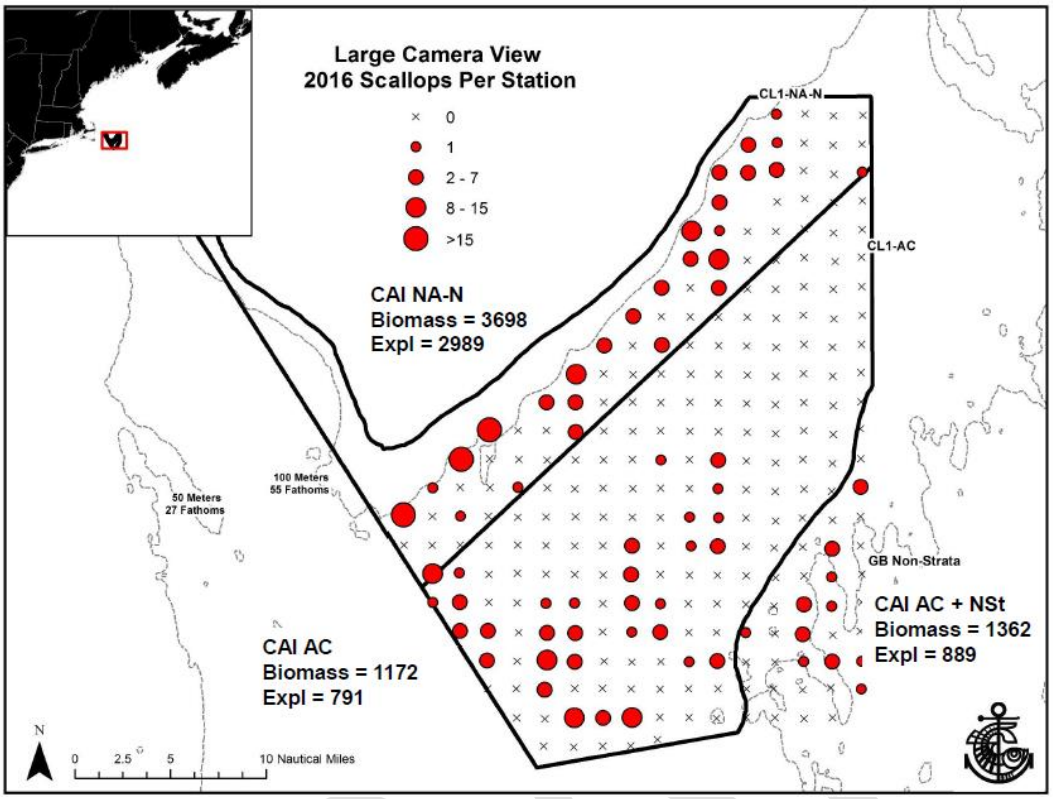


Figure 8 - 2016 combined HabCam coverage, including results from the NEFSC, WHOI, and HabCam group.

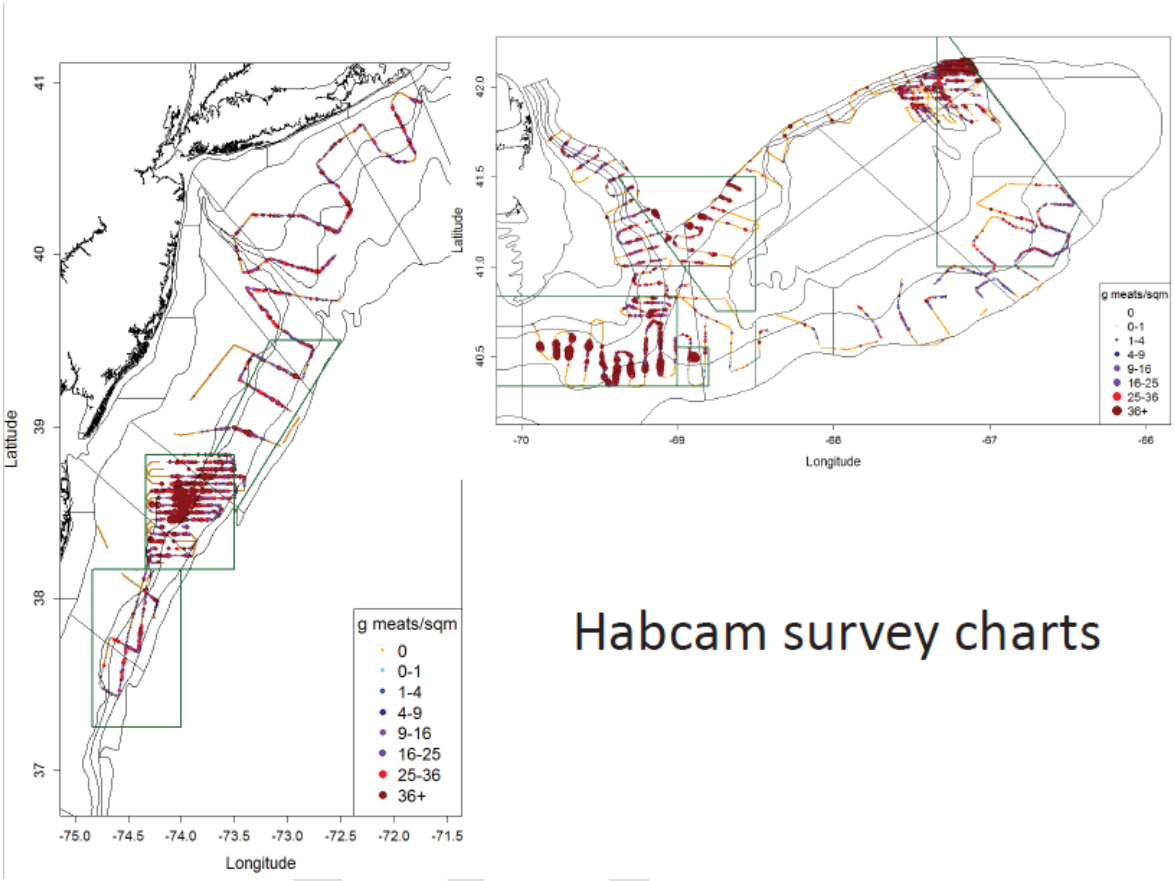


Figure 9 - 2016 WHOI HabCam v4 survey transects of the Northern Edge area.

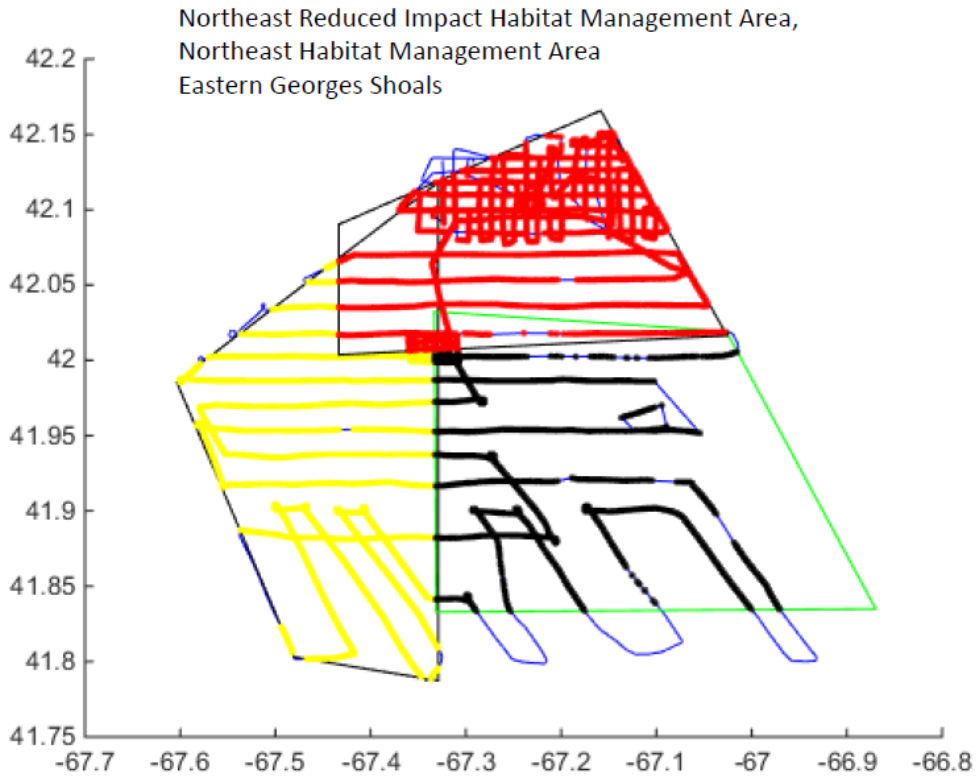


Figure 10 - Length frequency (mm) distributions in Northern Edge area from WHOI HabCam v4 2016 survey.

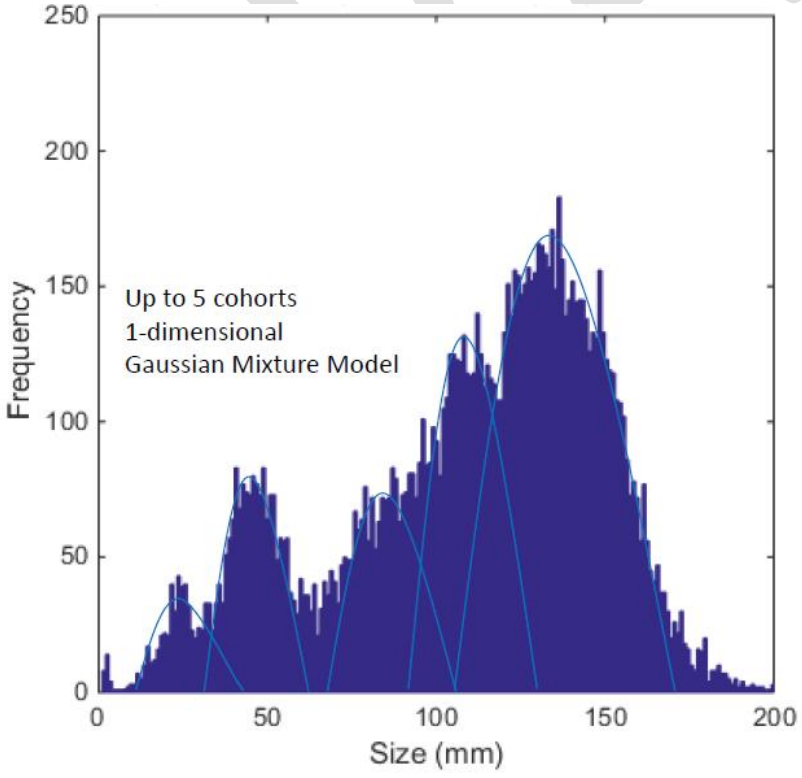


Figure 11 - Transects from HamCam Group's 2016 Elephant Trunk survey.

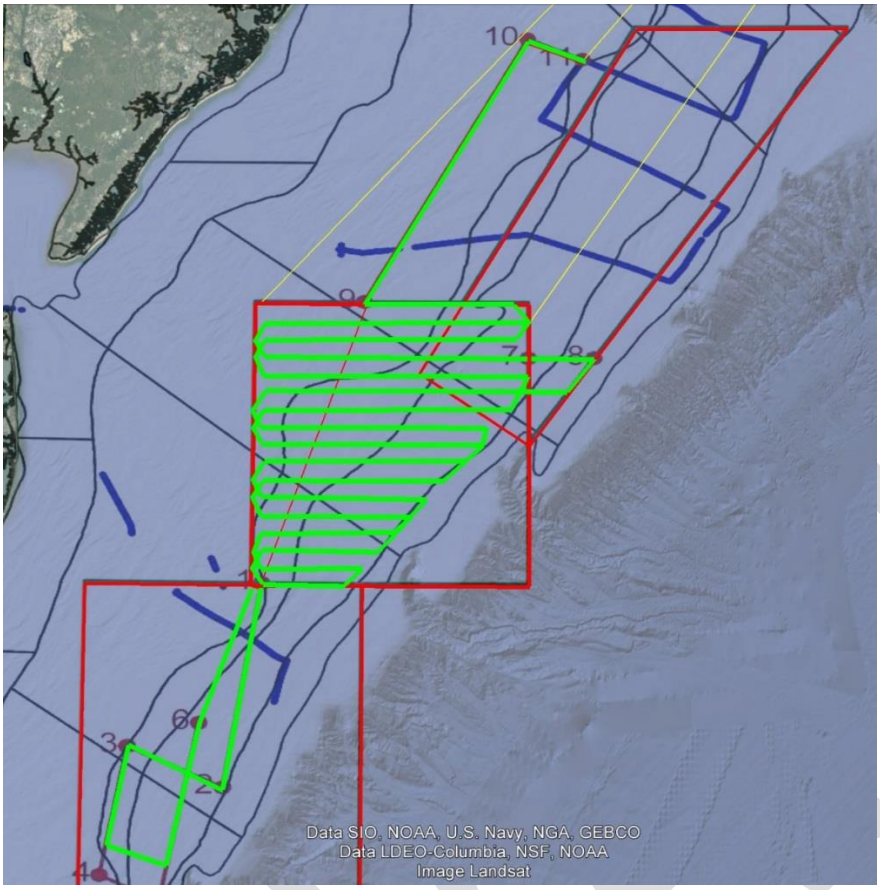


Figure 12 - Plot from HabCam Group's ET survey of observed gram per m2 and predicted mt per km2.

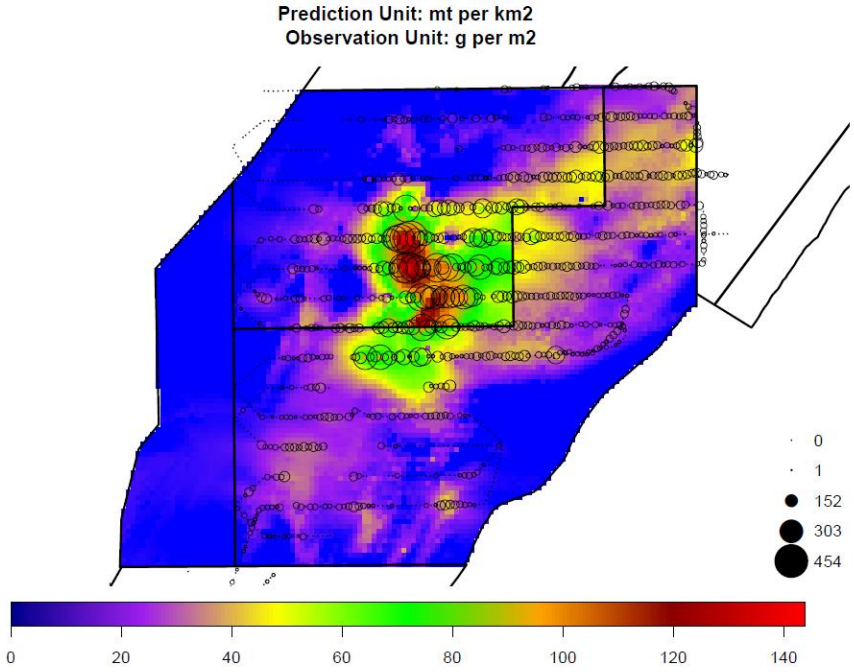


Figure 13 - Length frequency from HabCam Group's 2016 Elephant Trunk survey.

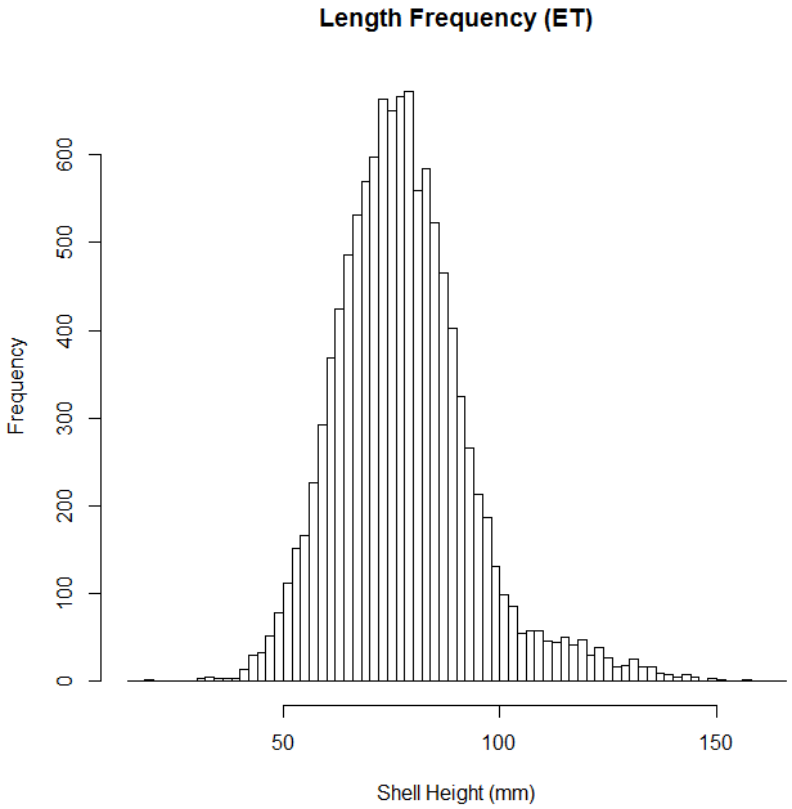


Figure 14 - Length Frequencies from VIMS survey - Mid-Atlantic

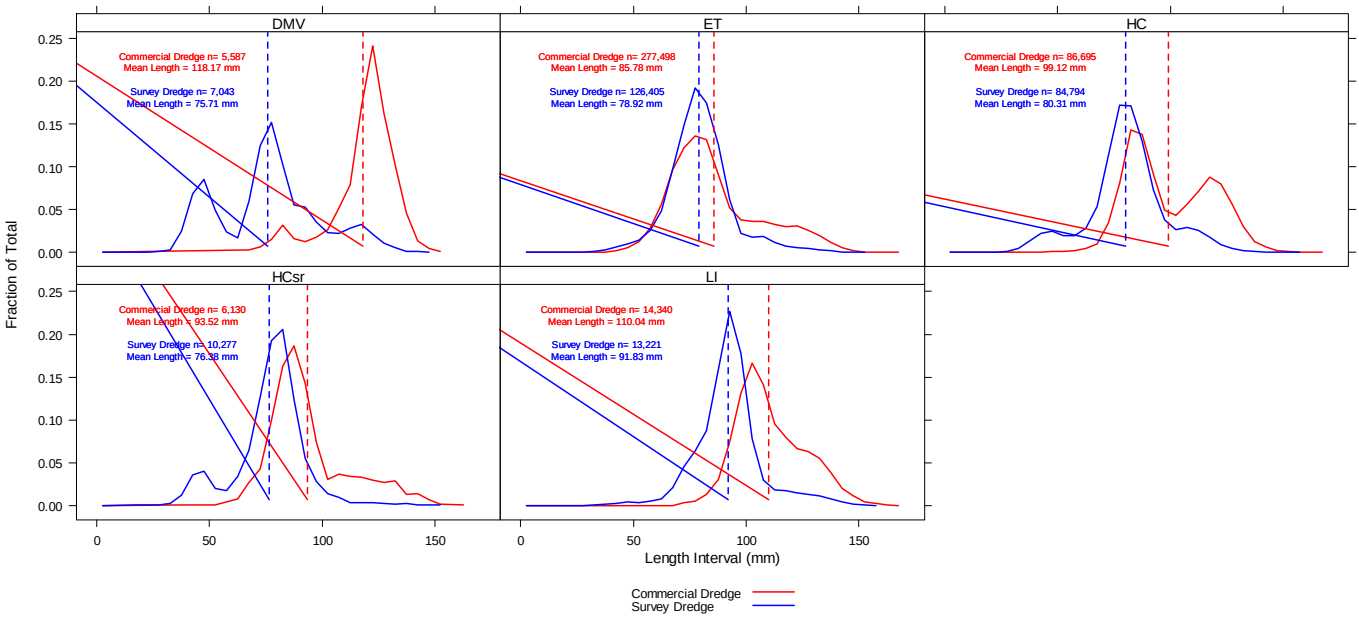


Figure 15 - Length frequencies of CAII S and CA II S Ext from VIMS dredge surveys.

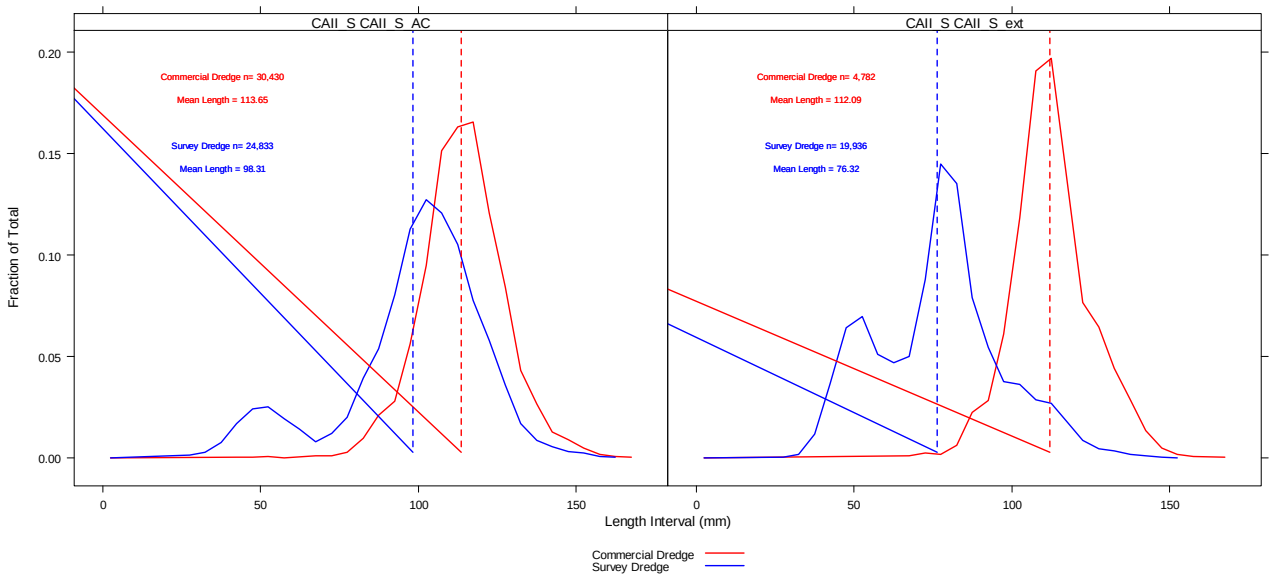
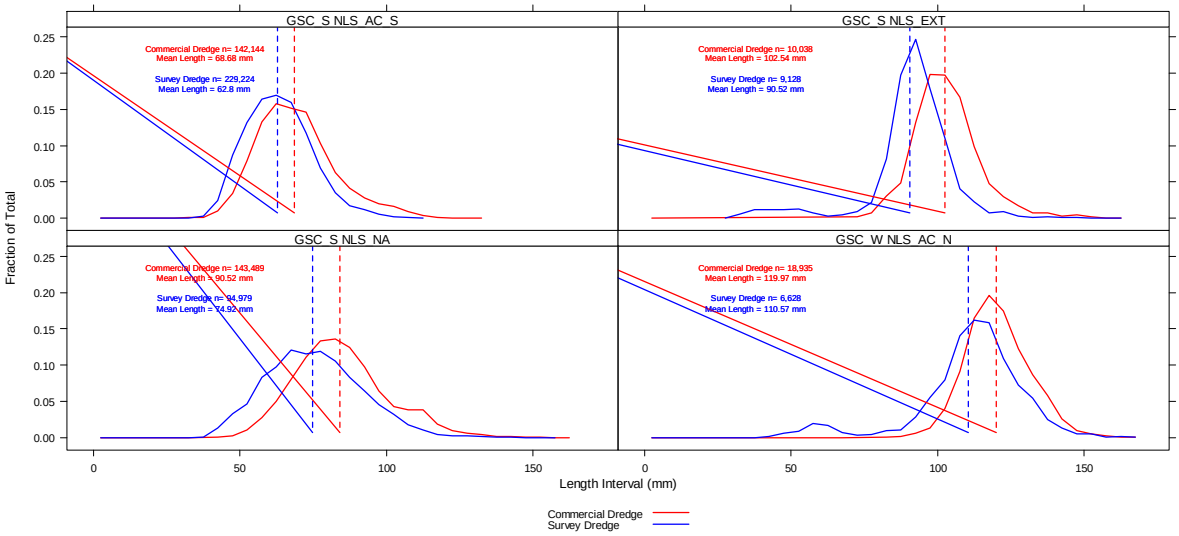


Figure 16 - Length frequencies of NLS areas from VIMS dredge surveys.



4.1.4 Updated estimates of biomass and recruitment

The Scallop PDT combines the results from all available surveys to estimate sea scallop biomass and recruitment on an annual basis. The PDT met on August 30-31, 2016 and reviewed results from all the surveys described above. Survey results were broken down into smaller areas used for management (SAMS areas). Ultimately all survey results are combined per area. Note that corrections and modifications were made in several sub-areas of the Nantucket Lightship in 2016 which resulted in a change in the survey estimates. First, a boundary error was found in the SAMS areas in the NL. Correcting this error expanded the NLS-AC-N and NLS-AC-S areas, and decreased the size of the NLS-NA area west of these areas. This year the NLS-AC-S was expanded north to align with the northern NLS-ext boundary. Three survey groups (VIMS, SMAST, and NEFSC) updated their original survey estimates to reflect these changes. Other

changes in 2016 included the use of the VIMS shell height/meat weight estimates for three of the NL SAMS zones. A review of the HabCam images suggested different growth rates of animals shallower and deeper of 70 meters within the NLS-AC-S. This growth difference in the NLS-AC-S was handled within the SAMS model (i.e. this breakdown is not shown in Table 23).

Table 23 - Summary of 2016 scallop survey estimates.

2016 Scallop Survey Estimates																		
	Dredge				Drop Camera (Digital)				Habcam				Means					
Georges Bank	NumMil	BmsMT	SE	MeanWt	NumMil	BmsMT	SE	MeanWt	NumMil	BmsMT	SE	MeanWt	NumMil	BmsMT	SE	MeanWt	IVWMBms	SE
CL1ACC	82	2250	815	27.3	85	1374	283	16.2	41	1135	11	27.7	70	1586	862	22.8	1136	11
CL1NA	428	11539	4631	27.0	231	5524	1403	23.9	973	16518	1734	17.0	544	11194	5140	20.6	9961	1062
CL-2(N)	209	4391	1288	21.0					260	6887	1092	26.5	234	5639	1689	24.1	5843	833
CL-2(S)	688	13876	866	20.2					500	8632	765	17.3	594	11254	1156	18.9	10932	574
CL2Ext	478	4963	427	10.4					472	3877	154	8.2	475	4420	454	9.3	4002	145
NLSAccN	100	3580	297	35.7	168	6057	1234	35.6	150	6352	613	42.3	139	5330	1410	38.3	4196	261
NLSAccS	5598	27570	2760	4.9	7305	43307	10909	5.9	12559	64982	2453	5.2	8487	45287	11517	5.3	48333	1808
NLSNA	1274	13313	2394	10.5	1768	22499	11959	14.9	5229	76561	3046	14.6	2757	37458	12571	13.6	37107	1860
NLSExt	98	1415	427	14.4	291	4697	4227	16.1	256	6707	506	26.2	215	4273	4279	19.9	3621	325
NF	955	6476	3380	6.8					106	1033	735	9.8	530	3755	3460	7.1	1279	719
SCH	661	9166	3212	13.9					392	3015	214	7.7	526	6090	3219	11.6	3042	214
SF	429	5313	2	12.4					287	3774	146	13.2	358	4544	146	12.7	5313	2
Total Rotational	*7045*	*53655*	*3050*	*7.6*					*13978*	*91686*	*2690*	*6.6*	*9980*	*72150*	*12451*	*7.2*	*75049*	*2017*
Total EFH Closures	*1910*	*29243*	*5370*	*15.3*					*6462*	*99966*	*3671*	*15.5*	*3535*	*54290*	*13686*	*15.4*	*77437*	*3031*
Total Open	*2045*	*20955*	*4663*	*10.2*					*784*	*7823*	*780*	*10.0*	*1415*	*14389*	*4728*	*10.2*	*8180*	*769*
TOTAL	**11001**	**103852**	**8409**	**11.6**					**21224**	**199474**	**4620**	**9.4**	**14930**	**140828**	**19102**	**9.4**	**177301**	**4049**
MidAtlantic																		
Block Island	74	1510	83	20.4									74	1510	83	20.4	1510	83
Long Island	849	14711	735	17.3					1433	21883	10173	15.3	1141	18297	10200	16.0	14749	733
NYB	692	7600	978	11.0					396	6129	4	15.5	544	6865	978	12.6	6129	4
MA inshore	60	726	74	12.2					27	285	1	10.6	43	506	74	11.7	285	1
HCSAA	1171	13824	634	11.8					2046	22311	791	10.9	1609	18068	1013	11.2	17146	495
ET Open	981	11250	450	11.5					2300	26039	1922	11.3	1640	18645	1974	11.4	12018	438
ET Closed	990	10682	821	10.8					4235	39140	4342	9.2	2613	24911	4419	9.5	11665	807
DMV	382	4096	394	10.7					474	6070	1046	12.8	428	5083	1118	11.9	4341	369
Virginia	7	17	3	2.2									7	17	3	2.2	17	3
Total Access	*2534*	*29170*	*1197*	*11.5*					*4819*	*54421*	*4926*	*11.3*	*3677*	*41795*	*5069*	*11.4*	*30579*	*1164*
Total Open	*1682*	*24564*	*1228*	*14.6*					*1856*	*28298*	*10173*	*15.2*	*1810*	*27195*	*10247*	*15.0*	*24618*	*1220*
TOTAL	**5207**	**64416**	**1716**	**12.4**					**10910**	**121859**	**11303**	**11.2**	**8099**	**93901**	**11433**	**11.6**	**65710**	**1696**
OVERALL TOTAL	**16207**	**168268**	**8582**	**10.4**					**32134**	**321333**	**12211**	**10.0**	**23029**	**234729**	**22262**	**10.2**	**218876**	**7021**

4.1.4.1 Georges Bank

The scallop abundance and biomass on Georges Bank increased from 1995-2000 after implementing closures and effort reduction measures. Biomass and abundance then declined from 2006-2008 because of poor recruitment and the reopening of portions of groundfish closed areas. Biomass increased on Georges Bank in both 2009 and 2010, mainly due to increased growth rates and strong recruitment in the Great South Channel, along with continuing concentrations on the Northern Edge and in the central portion of Closed Area I, especially just south of the "sliver" access area

4.1.4.2 Mid-Atlantic

In general, Mid-Atlantic biomass was declining since 2009, and has been steadily increasing as smaller scallops grow. The decline in exploitable biomass from 2006-2014 was primarily from depletion of the large biomass in Elephant Trunk and several years of poor recruitment in that area (2009-2011). However, stronger recruitment has been observed in 2012 and 2013. Once these scallops grow larger biomass in the Mid-Atlantic is expected to increase. The large number of small scallops observed in 2012 in all three MA access areas seems to have survived, and some of these animals were available to the fishery in FY2015. Overall MA scallop biomass is increasing as smaller scallops continue to grow in this area. However, the 2016 surveys suggest no signs of incoming recruitment.

4.1.5 Performance of ACL management

Gg

4.1.6 Northern Gulf of Maine

The scallop resource in the GOM varies widely with sporadic booms and busts. The qualification period adopted under Amendment 11 for the general category IFQ fishery did not overlap with a period of high scallop abundance in the GOM (FY2000-2004). Therefore, a separate limited entry program was adopted in Amendment 11 with a longer qualification period and no landings history requirement, but more conservative fishing measures including lower possession limits and more restrictive gear requirements. The LAGC Northern Gulf of Maine (NGOM) permit was established and about 125 permits were issued in 2010.

4.1.6.1 Summary of 2016 NGOM Survey

The 2016 NGOM survey was conducted in May and June of 2016 over 238 stations in 7 areas throughout the Gulf of Maine (Cape Ann to Machias Seal Island) by Maine DMR/UMaine. The gear remained the same from past surveys with a 7' dredge that was a New Bedford-style chain sweep with 2 inch rings, unlined, with rock chains. Tow lengths were 5 generally minutes and tow speed was around 3.5 kts. The majority of the harvestable biomass in the NGOM management area is currently off of Cape Ann. Smaller concentrations of biomass (>101mm) were seen in Machias/Seal Island, and on Platts Bank. The survey also covered bottom outside of the NGOM management area on Fippinies Ledge. The survey used a random stratified design. Biomass estimates were substantially higher in 2016 than they were in 2012. Mr. Torre presented biomass estimates to the PDT using an F=0.38 and an F=0.26. The PDT requested a new model run using an F=0.2, with estimates at the q.25 and q.10. The PDT noted that the NGOM is a

relatively "data poor" situation when compared to the annual surveys of Georges Bank and the Mid-Atlantic, and viewed the biomass estimates coming out of the F=0.2 runs as upper bounds of removals.

Table 24 - Biomass estimates from 2016 NGOM survey (F=0.2, Dredge Efficiency=0.4).

Exploitation Rate = 0.20 **Dredge Efficiency = 0.40**	**q0.05**	**q0.10**	**q0.15**	**q0.20**	**q0.25**	**Mean**
Biomass Estimate (MT)	657	795	932	1018	1090	1651
TAC(MT)	131	159	186	204	218	330
Biomass Estimate (lbs)	1,447,797	1,751,822	2,055,240	2,244,263	2,402,140	3,640,385
TAC(lbs)	289,559	350,364	411,048	448,853	480,428	728,077

Figure 17 - 2016 ME DMR NGOM Survey Areas.

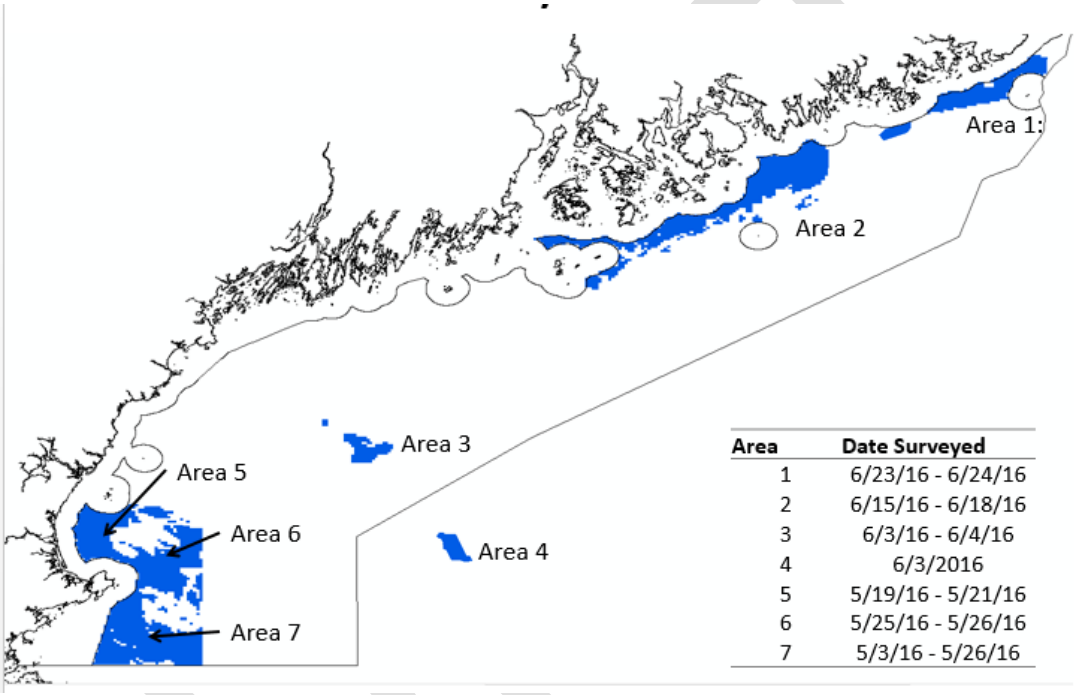
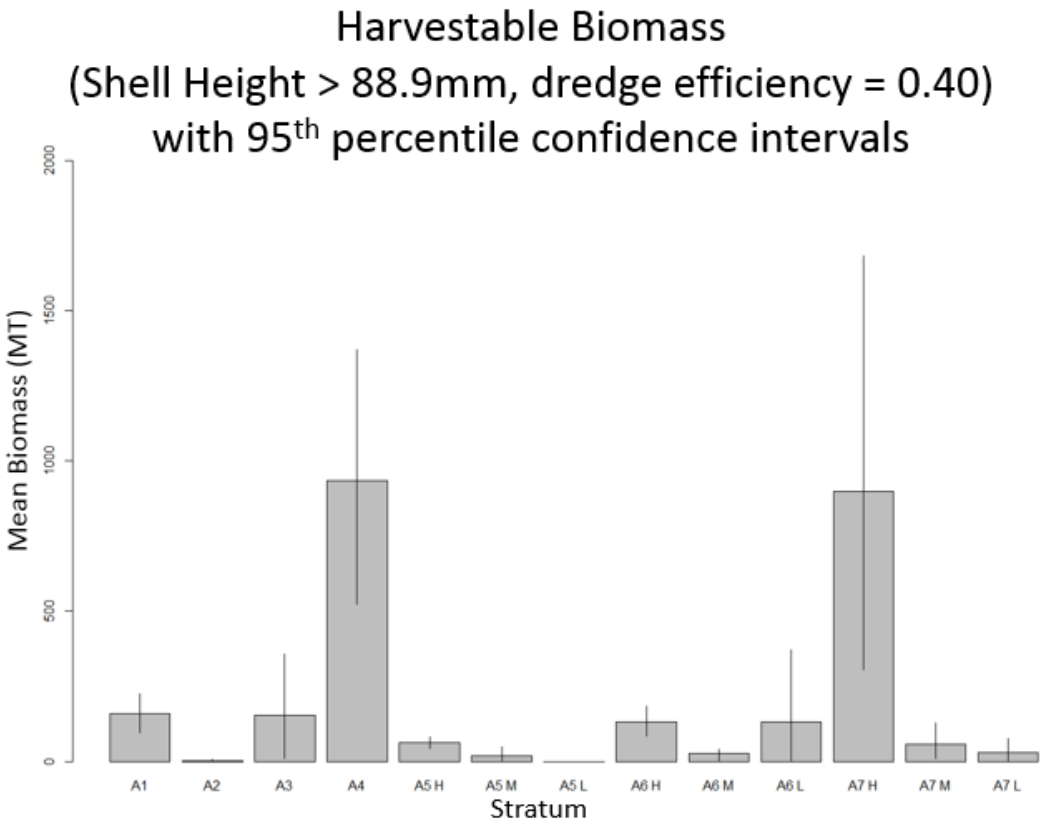


Figure 18 - 2016 ME DMR NGOM survey - estimates of harvestable biomass from each survey area.



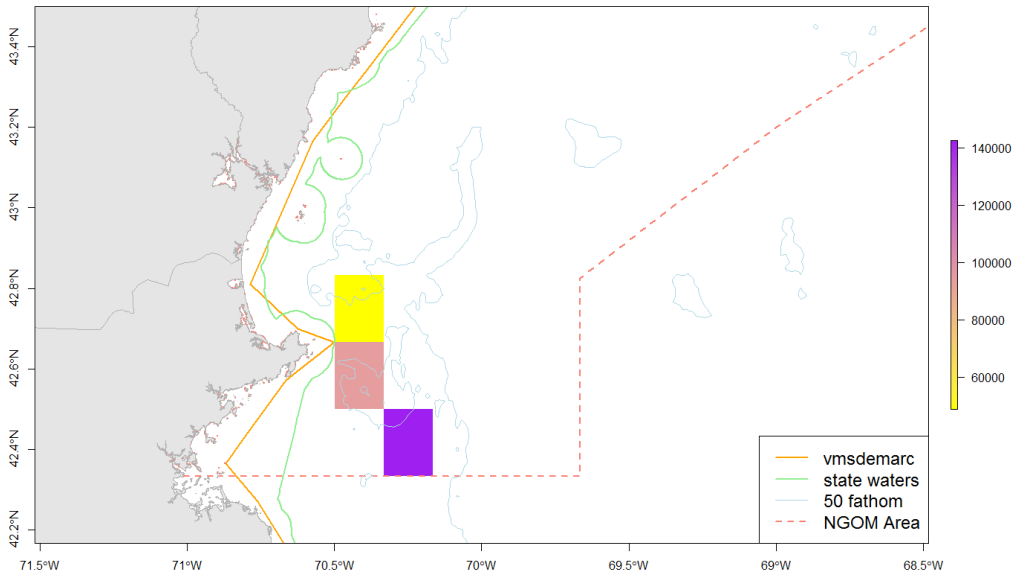
4.1.6.2 Summary of NGOM Fishery Data

Total landings by all fishery components from the NGOM management area have increased over time, reaching a high of over 375,000lbs in FY2016 (Table 25). From 2009 – 2015, all landings attributed to the management area came from LAGC IFQ and LAGC NGOM fishing. In FY 2016, LA vessels are estimated to have harvested close to 300,000 lbs from the NGOM Management Area (working in areas east and southeast of Cape Ann). The FY 2016 estimate assigns LA landings to NGOM based VTR point locations. LA vessels operating under DAS may fish inside and outside of NGOM management area within the same statistical reporting area (ex: SRA 514) on the same trip (or haul). The NGOM area closed to all scallop fishing on May 13, 2016.

Table 25 – Total landing attributed to the NGOM Management Area by permit type, FY 2009 - FY 2016

	Landings by Permit Category			Total NGOM Landings	NGOM closure date, (days open)
FY	**LAGC IFQ**	**LAGC NGOM**	**LA**		
2009	0	5793	0	5793	n/a, (entire FY year)
2010	4762	3877	0	8639	n/a, (entire FY year)
2011	6092	816	0	6908	n/a, (entire FY year)
2012	894	6546	0	7440	n/a, (entire FY year)
2013	8907	46501	0	55408	n/a, (entire FY year)
2014	13286	48900	0	62186	n/a, (entire FY year)
2015	26894	46879	0	73773	n/a, (entire FY year)
2016	24840	62263	291232*	378335	May 13, (74 days)
*Most recent estimate using VTR point locations.					

Figure 19 - FY 2016 Limited Access landings based on VTR fishing locations in the NGOM management area.



Both LAGC NGOM and LAGC IFQ vessels have fished in the NGOM. The majority of annual landings from the area have come from NGOM permit holders since FY 2012 (Table 26). LAGC IFQ activity has almost exclusively been in southern area (north of Cape Ann and along southern boundary). NGOM effort focused on Platt's Bank effort in 2013 and 2014. The average landings per trip for NGOM and IFQ vessels have been similar each FY, with average landings increasing by over 50lbs from FY 2015 to FY 2016. More LAGC NGOM permits are fishing in the area compared to IFQ vessels. The number of permits with associated landings increased for both IFQ and NGOM in FY 2016, to a total of 37 LAGC IFQ and NGOM. (Table 27). Since the start of the NGOM management program, seven LAGC IFQ permits have converted to NGOM

permits (Table 28). LAGC landings exceeded the 70,000 lb hard-TAC for the area in FY2015, triggering a pound for pound payback in FY 2016. The NGOM TAC was exceeded for the second consecutive year in FY 2016 (Table 29).

Table 26 - NGOM Landings by LAGC IFQ and LAGC NGOM permits, FY 2011 - FY 2016.

	Landings in lbs (% Total Landings)	
FY	LAGC IFQ	LAGC NGOM
2011	6092 (88%)	816 (12%)
2012	894 (12%)	6546 (88%)
2013	8907 (16%)	46501 (84%)
2014	13286 (21%)	48900 (79%)
2015	26894 (36%)	46879 (64%)
2016	24840 (29%)	62263 (71%)

Table 27 - Average Landings and number of active permits by LAGC permit type, FY 2011 - FY 2016.

	Average Landings (lbs)		Number of Permits	
FY	LAGC IFQ	LAGC NGOM	LAGC IFQ	LAGC NGOM
2011	76	51	6	4
2012	128	115	3	6
2013	87	122	7	11
2014	83	110	8	17
2015	99	104	8	20
2016	154	162	12	25

Table 28 - Number of LAGC IFQ permits converted to LAGC NGOM permits by year.

Fishing Years	**Number of Permits Converted**
2010 - 2015	7

Data are from the moratorium and vessel permit databases.

Table 29 - Total estimated LAGC landings from NGOM management area.

FY	Total LAGC IFQ & NGOM Landings
2011	6908
2012	7440
2013	55408

2014	62186
2015	73773
2016	87103

4.2 PHYSICAL ENVIRONMENT AND ESSENTIAL FISH HABITAT

4.3 PROTECTED RESOURCES

4.4 ECONOMIC AND SOCIAL ENVIRONMENT

4.4.1 Introduction

This section of the document describes the economic and social trends of the scallop fishery, including trends in landings, revenues, prices and foreign trade for the sea scallop fishery since 1994. In addition, it provides background information about the scallop fishery in various ports and coastal communities in the Northeast.

4.4.2 Trends in landings, prices and revenues

XXXX See Meeting Documents.

Table 30 - DAS and access area allocations per full-time vessel

Year	Action	DAS	AA trips	Year	CA1	CAII	NLS	VB	HC	ETA	DMV	Possession
1999	FW11	120	3	1999	Closed	3 trips: byc clo	Closed	Closed	Closed	N/A	N/A	10,000
2000	FW12	120	6	2000	2 trips	3 trips	1 trip	Closed	Closed	N/A	N/A	10,000
2001	FW14	120	3 (MA)	2001	Closed	Closed	Closed		3 trips	N/A	N/A	17,000
2002	FW14	120	3 (MA)	2002	Closed	Closed	Closed		3 trips	N/A	N/A	18,000
2003	FW15	120	3 (MA)	2003	Closed	Closed	Closed		3 trips	N/A	N/A	21,000
2004	FW16 - GB AA allocations; A10 and	42	7 (4 MA)	2004	Closed	2 trips	1 trip		4 trips	Closed	N/A	18,000
2005	FW16	40	5 (3 MA)	2005	1 trip	1 trip	Closed		3 trips	Closed	N/A	18,000
2006	FW18	52	5 + HC carryover (F18 also allowed vessels to exchange 2006 CA2 and NLS trips for ETA 2007 trips)	2006	Closed	3 trips: byc clo	2 trips: bycatch closure		open for 2005 carryover trips	Closed	N/A	18,000
2007	FW18/FW20	51	5 + HC carryover (F18 also allowed vessels to exchange 2006 CA2 and NLS trips for ETA 2007 trips)	2007	1 trip	Closed	1 trip		open for 2005 carryover trips	3 trips	Closed (Jan 1, 2007)	18,000
2008	FW19	35	5 (4 MA)	2008	Closed	Closed	1 trip: bycatch closure		Closed	4 trips	Closed	18,000
2009	FW19	42	5 (4 MA)	2009	Closed	1 trip: bycatch closure	Closed		Closed	3 trips	1 trip	18,000
2010	FW21	38	4 (3 MA)	2010	Closed	Closed	1 trip		Closed	2 trips	1 trip	18,000
2011	FW22	32	4 (2 MA)	2011	1.5 trips (all 313 vessels get 1 trip, 156 vessels get additional trip)	0.5 trips (157 vessels)	Closed (NLS emergency closure by Mar 1, FW22 cont.)		1 trip (313 vesels)	converted to open area	1 trip	18,000
2012	FW22	34	4	2012	1 trip after emergency action May 2012 (157 vessels get initial trip per FW22 and 156 get CA1 trip	1 trip (313 vesels)	0.5 trips (157 vessels)		1.5 trips (all 313 vessels get 1 trip, 156 vessels get	Closed (Dec 12, 2012, emergenc	Closed (May 2012 EmAc closed DMV and reallocated trips	18,000
2013	FW24	33	2	2013	118 trips (FW25 later allows unused trips to carryover to future year)	182 trips	116 trips		210 trips	Closed	Closed	13,000
2014	FW25	31	2	2014	Closed	197 trips	116 trips		Closed	Closed	313 trips (with pot. to opt for 5 DAS)	12,000
2015	FW26	30.86	3	2015	Closed	Closed	Closed		MAAA Open - 51,000 lbs, 17,000lb trips limit (ETC in place)			
2016	FW27	34.55	3	2016	Closed	Closed	LAGC IFQ Access - 485 Trips		MAAA Open - 51,000 lbs, 17,000lb trips limit (ETC in place)			17,000