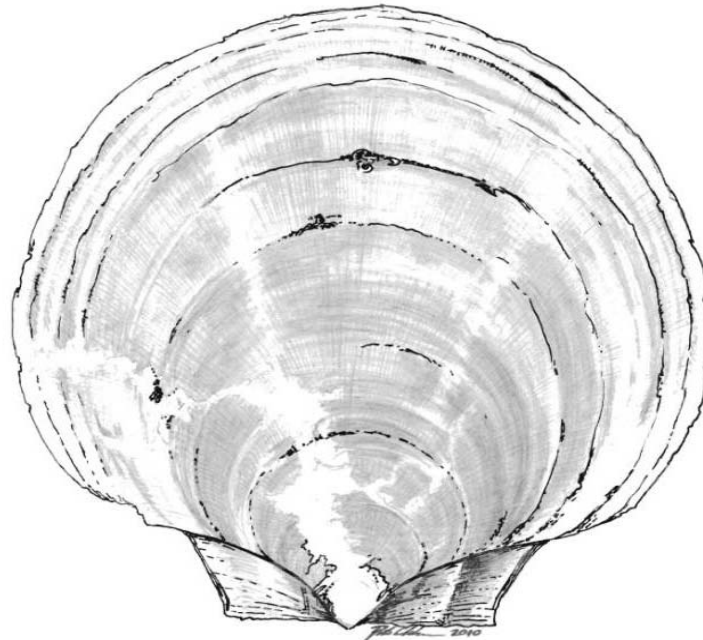


# **Emergency Action to the Atlantic Sea Scallop FMP: Closure of the Delmarva Scallop Access Area for 2012**

Environmental Assessment  
*Including a Regulatory Impact Review*



Prepared by the National Marine Fisheries Service  
March 2012

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## LIST OF ACRONYMS

ACL – Annual Catch Limit	NEFMC – New England Fishery Management Council
AM – Accountability Measure(s)	NEFSC – Northeast Fisheries Science Center
CEQ – Council on Environmental Quality	NEPA – National Environmental Policy Act
CA – Closed Area	NGOM – Northern Gulf of Maine
CAI – Closed Area I	NLCA – Nantucket Lightship Closed Area
CAII – Closed Area II	NLS – Nantucket Lightship Scallop Access Area
CASA – Catch-At-Age Size-At-Age (model)	NMFS – National Marine Fisheries Service
DAS – Day-at-sea	NOAA – National Oceanographic Atmospheric Administration
DMV – Delmarva	OA – Open Area
CPUE – Catch per Unit Effort	OFD – Overfishing Definition
EA – Environmental Assessment	OFL – Overfishing Limit
EEZ – Exclusive Economic Zone	RFA – Regulatory Flexibility Act
ESA – Endangered Species Act	RIR – Regulatory Impact Review
EFH – Essential Fish Habitat	SARC – Stock Assessment Review Committee
ET, ETA – Elephant Trunk Area	SBRM – Standardized bycatch reporting methodology
FMP – Fishery Management Plan	SH:MW – Shell height/meat weight conversion, used to estimate scallop biomass
FR – Federal Register	SMAST – School of Marine Science and Technology, University of Massachusetts Dartmouth
$F_{MSY}$ – Fishing Mortality at Maximum Sustainable Yield	SNE – Southern New England
FW- Framework	SNE/MA – Southern New England/Mid-Atlantic
FY – Fishing Year	SSC – Science and Statistical Committee
GB– Georges Bank	TAC– Total Allowable Catch
GC – General Category	PDT – Scallop Plan Development Team
GOM– Gulf of Maine	VEC – Valued Ecosystem Component
HC – Hudson Canyon	VIMS – Virginia Institute of Marine Science
LA – Limited Access	VTR – Vessel Trip Reports
LAGC – Limited Access General Category	
LPUE – Landings per unit effort, (lb/DAS)	
IFQ – Individual Fishing Quota	
IRFA – Initial Regulatory Flexibility Analysis	
LA – Limited Access	
MSA – Magnuson Stevens Act	
MSY – Maximum Sustainable Yield	
NE – New England or Northeast	

## 1.0 INTRODUCTION & BACKGROUND INFORMATION

The New England Fishery Management Council's (Council) Scallop Plan Development Team (PDT) met on January 5, 2012 and reviewed survey information for all scallop resource surveys conducted in 2011 (NEFMC Scallop PDT, 2012). The Delmarva Scallop Access Area (DMV) was surveyed by the University of Massachusetts Dartmouth School for Marine Science and Technology (SMAST) video survey, the federal (i.e., Northeast Fisheries Science Center, NEFSC) dredge survey, and the Virginia Institute of Marine Science (VIMS) dredge survey. The VIMS survey is a paired tow survey that uses both a survey dredge and a commercial turtle deflector dredge. All three surveys saw a clear decline in biomass compared to 2010 surveys. The SMAST survey, which occurred in May 2011, reported total biomass in that area to be 5,939 mt or about 13 million pounds, of which 10 million pounds were exploitable size. In June 2011, the federal dredge surveyed the area with a total biomass estimate of 7.2 million pounds. In 2011, the majority of the fishing effort occurred during the first 4 months of the fishing year (i.e., March through June). The VIMS dredge surveyed the area in October, after the vast majority of 2011 scallop trips were taken and estimated an exploitable biomass of 3.7 to 4.2 million pounds, depending on which survey dredge and shell height/mean weight (SH:MW) conversion they used.

For comparison, in 2010, the biomass estimate of the resource in DMV from the 2010 federal dredge survey was 8,687 mt (about 19 million pounds) and 13,920 mt from the SMAST survey (about 30.7 million pounds, 20 million pounds exploitable biomass). The combined estimate from these surveys was 10,873 mt, or about 24 million pounds. VIMS did not survey DMV in 2010. During the development of Framework Adjustment 22 (Framework 22) to the Atlantic Sea Scallop Fishery Management Plan (FMP), which set specifications for fishing years (FYs) 2011 and 2012, the PDT discussed that one full trip into the DMV could be allocated to full-time scallop vessels<sup>1</sup> in each year based on those biomass estimates. However, due to concerns about lower biomass in Mid-Atlantic access areas in the second year of a specification package (i.e., FY 2012), the PDT explored "split trip" allocations for limited access full-time scallop vessels. Split trips allocate half the full-time fleet an access area trip in one area, and the other half a trip in an alternative area. That way, less effort would be allocated into DMV in the second year of the action in the event that biomass was lower than expected. The PDT did not discuss setting up an automatic measure in Framework 22 that would further reduce or move DMV trips in FY 2012 because the PDT had already recommended reducing effort from one full trip (i.e., 313 full-time vessels allocated a DMV trip at 18,000 lb/trip) to a split trip (i.e., 156 full-time vessels allocated a DMV trip at 18,000 lb/trip) in the event biomass was not sufficient in 2012.

The Council's Scallop Committee (Committee) received correspondence from the Fisheries Survival Fund prior to their January 19, 2012, meeting that expressed concerns regarding the lower than expected biomass in DMV and the FY 2012 allocations for that area. The Fisheries Survival Fund requested that the Committee consider an action to address this issue in FY 2012,

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<sup>1</sup> Note that the limited access scallop fleet (i.e., the larger, trip-boat fleet) is composed of three general permit categories: Full-time, part-time, and occasional. In FY 2011, there were 313 full-time vessels, 34 part-time vessels, and no occasional vessels. Based on the permit eligibility criteria established in Amendment 4 to the Scallop FMP, part-time vessels receive 40 percent, and occasional vessel are allocated 8.33 percent, of what full-time vessels are allocated each FY.

or in FY 2013 in Framework 24, which will set the scallop specifications for FYs 2013 and 2014. The Committee expressed their belief that this issue warrants an emergency action in FY 2012 because it was unforeseen and will potentially have unintended consequences. The Committee then requested that the PDT investigate options related to how the FY 2012 DMV trips could be converted and provide input on which strategy would have the least impact on the resource and ecosystem.

The PDT had a conference call on January 24, 2012, and discussed whether or not the DMV should be closed to scallop fishing in FY 2012, and suggested a range of possibilities for where and when to send the DMV effort. These options were presented to the Council at their January 31 – February 2, 2012 meeting in Portsmouth, NH. The Council passed a motion requesting that the National Marine Fisheries Service (NMFS) take emergency action to close DMV and instead allocate those trips into the Closed Area 1 (CAI) Scallop Access Area.

## **2.0 PURPOSE AND NEED FOR THE ACTION**

Survey results from the DMV in FY 2011 (March 1, 2011, through February 29, 2012) recently became available and indicate that the overall scallop biomass in DMV is substantially lower than expected for FY 2012 (March 1, 2012, through February 28, 2013). The results also indicate that the DMV is one of the few areas in the Mid-Atlantic where recruitment (i.e., evidence of young scallops) was noticeable. Although Framework 22 allocated DMV FY 2012 trips to many scallop vessels, these recent survey results represent the best scientific information to-date regarding the status of the scallop resource in DMV and indicate that the DMV should potentially close in FY 2012.

This action is needed to address the declining scallop biomass in the DMV.

A declining biomass in DMV would have the following three risks associated with vessels that have DMV trip allocations and choose to fish in the area for the duration of FY 2012:

- First, fishing activity in DMV in FY 2012 could negatively impact scallop recruitment and reduce long-term biomass and yield from the area.
- Second, due to low catch rates in this area, increased fishing time and area swept could result in greater negative impacts on bycatch, habitat, and protected resources.
- Third, the success of the entire scallop area rotation program depends on timely openings and closing of access areas in order to protect scallop recruitment and optimize yield. This is particularly true in the Mid-Atlantic, where recruitment has been well below average for several years. Fishing effort in DMV could compromise the overall success of the area rotation program.

Specifically, the purpose of this action is to consider closing the DMV as soon as possible during FY 2012, and instead allocating those trips into another area.

Because fishing in DMV in FY 2012 would have future implications on the success of Mid-Atlantic scallop yield in future FYs, this action would likely be implemented for the entirety of FY 2012's remaining DMV fishing season (likely May 2012 – February 2013).



## 2.1 Justification for Emergency Action

If the Secretary finds that an emergency exists, Section 305(c) of the Magnuson Stevens Act (MSA) authorizes him to promulgate emergency regulations to address the emergency for any fishery. NMFS last issued policy guidelines in determining whether the use of an emergency rule is justified (62 FR 44421; August 21, 1997). The guidelines state that the preparation of management actions under the emergency provisions of the MSA should be limited to special circumstances where substantial harm or disruption of the resource, fishery, or community would be caused in the time it would take to follow standard rulemaking procedures. The emergency criteria of the policy guidelines define the existence of an emergency as a situation that: “(1) results from recent, unforeseen events or recently discovered circumstances; and (2) presents serious conservation or management problems in the fishery; and (3) can be addressed through emergency regulations for which the immediate benefits outweigh the value of advance notice, public comment, and deliberative consideration of the impacts on participants to the same extent as would be expected under the normal rulemaking process.” The justifications described in the guidelines include the prevention of significant direct economic loss or to preserve a significant economic opportunity that otherwise might be foregone, and the prevention of significant community impacts.

The new information from the DMV 2011 scallop surveys presents a recently discovered circumstance and therefore warrants emergency action. Although the last survey was completed in October 2011, the results were not presented until the January 5, 2012, Scallop PDT meeting. There is now evidence that there is significantly less biomass in DMV than projected through Framework 22, which set the FY 2012 scallop specifications. In addition, the surveys show that small scallops, or recruitment, are present within the DMV and that there is not substantial recruitment elsewhere in the Mid-Atlantic.

The emergency presents serious conservation and management problems to the fishery because allowing fishing effort in the DMV in FY 2012 with the current low biomass levels could result in negative impacts on recruitment and could reduce the long-term biomass and economic yield from this area. Since there has been well below average recruitment in the Mid-Atlantic for several years, protecting scallop recruitment in this area is essential for the future success of area rotation to maximize yield and economic benefits to the scallop fishery. Additionally, it is probable that catch rates will be much lower for DMV than originally projected, and lower than other access areas that will be open to vessels this coming FY. When catch rates fall, vessels must fish longer to get the same total catch increasing area swept, or time that fishing gear is in the water. Increased area swept has greater impacts on bycatch, habitat, and protected resources, as well as increased costs for fishing vessels due to longer trips. The increase in fishing costs would also have negative impacts on the producer surplus and net economic benefits from the fishery.

Although the Council has the authority to develop a management action to modify the scallop access area trip allocations, an emergency action can be developed and implemented by NMFS more swiftly than a Council action that is subject to procedural and other requirements not applicable to the Secretary. If the normal regulatory process is used to revise the trip allocations, it would take substantially longer for the revised trip allocations to be implemented, and could result in triggering economically harmful management actions that otherwise may have been avoided. If implemented through emergency action, it may be possible to maintain overall catch

allocations for Atlantic sea scallops for the remainder of FY 2012 and avoid unnecessary adverse biological and economic impacts. Therefore, NMFS has determined that the current situation meets the criteria for emergency action.

### 3.0 ALTERNATIVES INCLUDING THE PROPOSED

#### 3.1 Alternative 1: No Action

Under this alternative, the DMV would remain open in FY 2012, and 156 full-time vessels would continue to be allocated trips into the area (one trip per vessel at 18,000 lb/trip). See Appendix 1 for the FY 2012 list of full-time vessel allocations. Part-time vessels could also use one (14,400 lb/trip) of their two trips in this area, but it is not likely they will do so. Limited access general category (LAGC) individual fishing quota (IFQ) vessels will have a fleet-wide trip allocation of 296 trips (up to 600 lb/trip) but, as with part-time vessels, it is unlikely they would choose to use them in this area (See Table 9 in Section 4.1 of this document).

**Table 1. FY 2012 Allocation under No Action**

Vessel Permit Category	lb/trip	Total Trips	Hudson Canyon (HC)	DMV	Closed Area I (CAI)	Closed Area II (CAII)	Nantucket Lightship (NLS)
<b>Full-time</b>	18,000	4	½ Fleet: 1 ½ Fleet: 2	½ Fleet: 1	½ Fleet: 1	1	½ Fleet: 1
<b>Part-time</b>	14,400	2	Up to 2	Up to 1	Up to 1	Up to 1	Up to 1
<b>Occasional</b>	6,000	1	Up to 1	Up to 1	Up to 1	Up to 1	Up to 1
<b>LAGC IFQ</b>	600	N/A	887	296	296	0	296

The area would also remain open for the start of FY 2013 under default measures, but would likely close once Framework 24 was implemented (likely May 2013). At the start of FY 2013, 156 full-time vessels would be allocated trips into the area (one trip per vessel at 18,000 lb/trip), but it is unlikely they would take them. Many vessels would likely wait until the Framework 24 specifications became effective.

Under No Action, the Council could decide to address the DMV FY 2012 split trip allocation in Framework 24. Alternatives could be developed that would offer vessels with unused FY 2012 trips compensation in FY 2013 (e.g., additional DAS or an additional access area trip into another area).

#### 3.2 Alternative 2: Closure of DMV and Trip Reallocation into CAI Proposed Action (Preferred)

Under this alternative, the DMV would close once the emergency rule is effective (likely May 2012), and remain closed for up to one year (the maximum length of an emergency action, likely May 2013). The 156 full-time vessels that received an FY 2012 trip into DMV would instead be allocated trips into CAI (156 trips at 18,000 lb/trip). Because there are already 157 full-time CAI trips allocated into that area, this alternative would increase the total number of full-time vessel

CAI trips to 313 (18,000 lb/trip). The observer set-aside allocated to DMV (36,000 lb), would be reallocated to CAI to cover the increase in trips in this area, resulting in a total observer set-aside for CAI of 72,000 lb in FY 2012.

No adjustments would be necessary for LAGC or part-time vessels, as they already can fish their IFQ or take their trips into other areas.

In FY 2013, the DMV would re-open with allocations to half the full-time fleet under default measures once this action expires. CAI would close under the same default measures. However, new specifications would be implemented under Framework 24 shortly thereafter, if not before, the emergency action expires. The Council recently began development of Framework 24 in January 2012 and the allocation alternatives for FY 2013 and FY 2014 were not developed at the time of this action. As a result, the details of the FY 2013 specifications are currently unknown.

**Table 2. FY 2012 Allocation under Alternative 2**

Vessel Permit Category	lb/trip	Total Trips	HC	DMV	CAI	CAII	NLS
<b>Full-time</b>	18,000	4	½ Fleet: 1 ½ Fleet: 2	0	½ Fleet: 1* ½ Fleet: 1*	1	½ Fleet: 1
<b>Part-time</b>	14,400	2	Up to 2	0	Up to 1	Up to 1	Up to 1
<b>Occasional</b>	6,000	1	Up to 1	0	Up to 1	Up to 1	Up to 1
<b>LAGC IFQ</b>	600	N/A	887	0	296	0	296

\* Since trips are allocated randomly, moving the assigned DMV trips to CAI under this scenario does not mean that all full-time vessels would receive a CAI trip. Some DMV vessels may already have a CAI trip, so this alternative would provide them with 2 CAI trips. Others originally assigned DMV trips may not have already been allocated a CAI trip, thus would receive 1 CAI trip and 3 trips in other access areas (i.e., HC, CAII, and NLS).

### **3.3 Alternative 3: Closure of DMV and Reallocating Full-Time Vessels a 9,000-lb trip into HC (resulting in a total number of 3.5 trips for all full-time vessels, rather than 4)**

Under this alternative, the DMV would close once the emergency rule is published (likely May 2012), and remain closed for up to one year (the maximum length of an emergency action, likely May 2013). The trips allocations for FY 2012 would be adjusted so that DMV trips for half the fleet and the additional HC trips for half the fleet would disappear, resulting in the entire fleet having 1 trip in HC at 18,000 lb and another trip into HC at 9,000 lb. This would result in the entire full-time fleet having a total of 3.5 trips (i.e., 3 trips at 18,000 lb/trip and 1 trip at 9,000 lb per trip), rather than 4 trips at 18,000 lb/trip each. To cover the increase in the number of trips that would enter HC under this alternative, the observer set-aside allocated to DMV (36,000 lb), would be reallocated to HC, resulting in a total observer set-aside for HC of 143,980 lb in FY 2012.

No adjustments would be necessary for LAGC or part-time vessels, as they already can fish their IFQ or take their trips into other areas.

**Table 3. FY 2012 Allocation under Alternative 3**

Vessel Permit Category	lb/trip	Total Trips	HC	DMV	CAI	CAII	NLS
<b>Full-time</b>	18,000*	3.5	All Fleet: 1 full trip; 1 trip at 9,000 lb/trip	0	½ Fleet: 1	1	½ Fleet: 1
<b>Part-time</b>	14,400	2	Up to 2	0	Up to 1	Up to 1	Up to 1
<b>Occasional</b>	6,000	1	Up to 1	0	Up to 1	Up to 1	Up to 1
<b>LAGC IFQ</b>	600	N/A	887	0	296	0	296

\* Unless otherwise indicated

In FY 2013, the DMV would re-open with allocations to half the full-time fleet under default measures once this action expires. HC would have an allocation of 1.5 trips at 18,000 lb/trip (meaning half the fleet gets 1 full trip, the other half gets 2 full trips) under the same default measures. However, new specifications would be implemented under Framework 24 shortly thereafter, if not before, the emergency action expires. The Council recently began development of Framework 24 in January 2012 and the allocation alternatives for FY 2013 and FY 2014 were not developed at the time of this action. As a result, the details of the FY 2013 specifications are currently unknown.

### 3.4 Considered But Rejected Alternatives

The Council recommended measures in its request for this emergency action. NMFS has identified and considered the Council’s recommended alternative as the preferred alternative for this action. The Council discussed other alternatives at its January 31 – February 2, 2012 meeting. These other alternatives included options for closing the DMV in FY 2012 and converting those full-time limited access trips into open area days-at-sea (DAS) or other access area trips to be fished the same FY, or in FYs 2013 or 2014. The Council also considered closing DMV in FY 2012 and giving full-time limited access vessels access to that area in FY 2014. Because LAGC and limited access part-time vessels have more flexibility in their trip allocations (i.e., they do not lose the ability to fish their full scallop allocations due to a DMV closure), this action does not consider adjustments to those vessels’ area-based allocations under a DMV closure.

NMFS rejected options to convert trips to open area DAS and/or other access areas due to bycatch, turtle distribution, biomass, and recruitment concerns. Increased effort in Mid-Atlantic open areas could have potential negative impacts on sea turtles, while increased effort in Southern New England and Georges Bank open areas could result in negative impacts on yellowtail flounder bycatch in the scallop fishery. The potential inequitable economic cost of delaying an access area trip for half of the full-time fleet by two years was also a concern for the Council and NMFS. Each access area trip is currently 18,000 pounds and, with scallop worth around \$10 a pound, an access area trip can bring \$180,000 in gross vessel revenue. However,

the uncertainty of fuel costs and scallop prices in future FYs could make these trips less valuable. In addition, pushing back allocations from one FY to the next could undermine the success of the area rotation program and complicate the annual catch limit (ACL) structure outlined in the Scallop FMP. Therefore, NMFS rejected options to delay reallocating access area trips to 2014.

Finally, given the short duration that this action would be in effect, and the fact that the alternatives are within the context of management measures already in place, it is not feasible to consider a broad range of alternatives. Consideration of a broader suite of alternatives would undermine NMFS's ability to analyze and implement the action in a timely manner. Additionally, the Council will consider alternatives for long-term modifications to the FMP as part of Framework 24, which sets the management measures for FYs 2013 and 2014. Framework 24, if approved, is expected to be implemented in May 2013.

#### **4.0 AFFECTED ENVIRONMENT**

The following is excerpted or summarized primarily from the Final Environmental Impact Statement for Amendment 15 to the Scallop FMP (NEFMC 2010) and the Environmental Assessments (EAs) for Framework 22 and Framework 23 to that plan (NEFMC 2011a, NEFMC 2011b). Refer to these documents (Available at: <http://www.nefmc.org/scallops/index.html>) for more detailed information on the fisheries and other resources described below. Some updates have been included, in particular new information about the fishery from 2010 and 2011, as well as a summary of recent activities related to protected resources and essential fish habitat (EFH).

##### **4.1 Atlantic Sea Scallop Resource**

The Atlantic sea scallop (*Placopetca magellanicus*) is a bivalve mollusk that is distributed along the continental shelf, typically on sand and gravel bottoms from the Gulf of St. Lawrence to North Carolina (Hart and Chute, 2004). The species generally inhabit waters less than 20° C and depths that range from 30-110 m on Georges Bank, 20-80 m in the Mid-Atlantic, and less than 40 m in the near-shore waters of the Gulf of Maine. Although all sea scallops in the US EEZ are managed as a single stock per Amendment 10, four regional components and six resource areas are recognized. Major aggregations occur in the Mid-Atlantic from Virginia to Long Island (Mid-Atlantic component), Georges Bank, the Great South Channel (South Channel component), and the Gulf of Maine (Hart and Rago, 2006; NEFSC, 2007). These four regional components are further divided into six resource areas: Delmarva (Mid-Atlantic), New York Bight (Mid-Atlantic), South Channel, southeast part of Georges Bank, northeast peak and northern part of Georges Bank, and the Gulf of Maine (NEFMC, 2007). Assessments focus on two main parts of the stock and fishery that contain the largest concentrations of sea scallops: Georges Bank and the Mid-Atlantic, which are combined to evaluate the status of the whole stock (NEFMC, 2007). In 2009, sea scallops were not overfished and overfishing was not occurring. Preliminary results show that the same was true for 2010. A final determination will be made later this spring.

##### *Biomass*

The scallop abundance and biomass on Georges Bank increased after implementing closures and effort reduction measures between 1995-2000. Biomass and abundance declined between 2004-2007 because of poor recruitment and the reopening of portions of groundfish closed areas, but has been increasing since then due to improved recruitment.

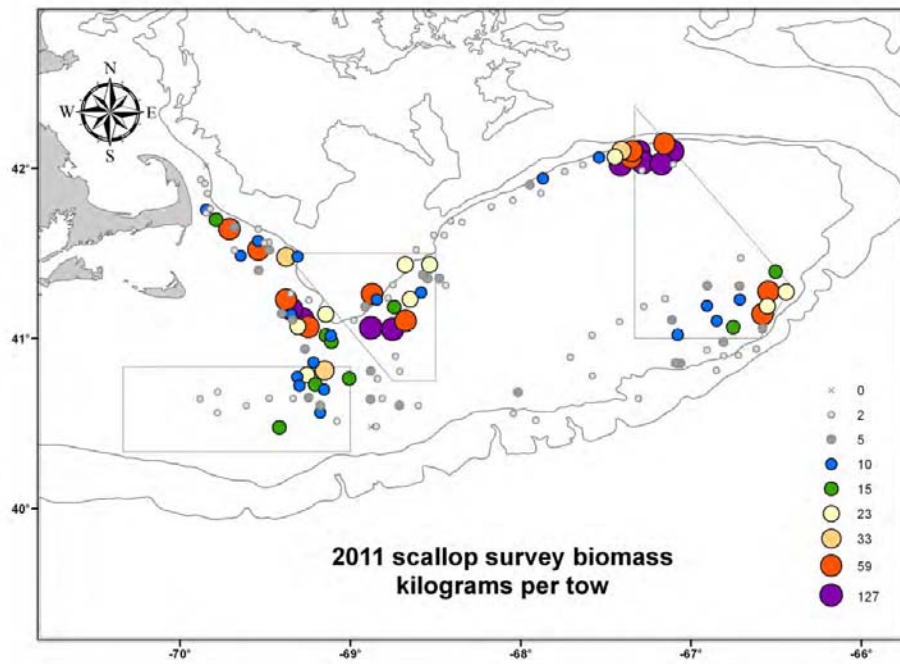
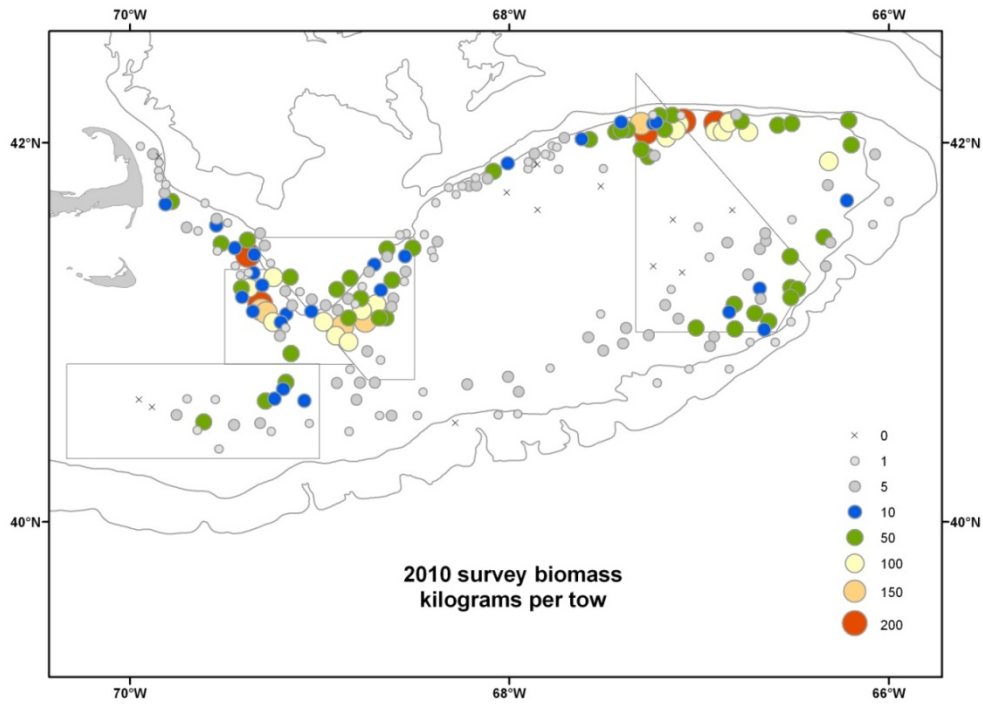
The most recent scallop biomass surveys were conducted in 2011 by four different survey groups: The NEFSC, SMAST, VIMS, and the Woods Hole Oceanographic Institute’s Habitat Camera project (HabCam). Preliminary results (NEFMC Scallop PDT, 2012) from these various surveys are outlined in Table 4.

**Table 4. Preliminary 2011 total biomass estimates from all scallop surveys (in mt). The “biomass” refers to scallop meat weight, which is estimated using a shell height/meat weight (SH:MW) conversion factor.**

Area	NMFS Dredge	SMAST Video	Habcam Photo	VIMS Survey Dredge
<b>Georges Bank</b>				
CAI Access	14,873	12,582	18,084	
CAI Closed	6,100	6,290	6,726	
CAII Access	14,244	12,846	9,165	20,169
CAII Closed	11,061	16,307	20,050	
NLS Access	3,950	3,312	5,584	
NLS Closed	86	2,806	2,944	
South Channel	26,491	18,450		
NEP	4,715	8,050	8,259	
Southeast Part	2,212	3,566	4,086	
<b>Total</b>	<b>80,379</b>	<b>87,563</b>		
<b>Mid-Atlantic</b>				
Delmarva	3,371	5,939		2,287
Elephant Trunk	2,106	2,187		
Hudson Canyon South	17,023	19,316		
New York Bight	9,490	7,721		
Long Island	20,300	16,310		16,676
Virginia Beach	26			
<b>Total</b>	<b>52,316</b>	<b>51,473</b>		
Outside regular survey		7,689		6,109

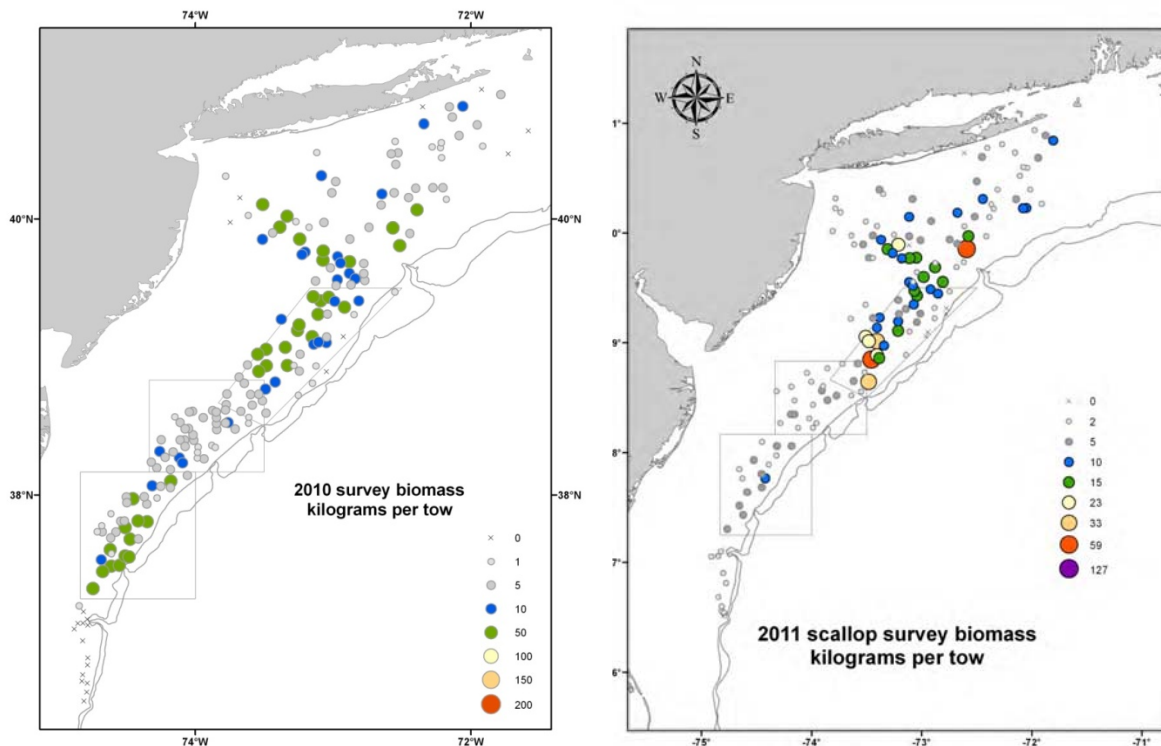
As in both 2009 and 2010, scallop biomass increased on Georges Bank in 2011. This was mainly due to increased growth rates and strong recruitment in the Great South Channel, along with continuing concentrations on the Northern Edge and in the central portion of Closed Area I, especially just south of the “sliver” access area. The highest concentrations of biomass on Georges Bank are currently on the Northern Edge, within Closed Area I, and within the Great South Channel (Figure 1).

Figure 1. Biomass chart for Georges Bank from the 2010 and 2011 NMFS sea scallop surveys. (Note that the scale of the legends for each year are not identical).



In general, the 2011 Mid-Atlantic biomass is down from 2010, mainly from the depletion of DMV. This decrease in biomass in the Mid-Atlantic has been a noticeable trend in recent years. Figure 2 shows the biomass in the Mid-Atlantic based on the 2010 and 2011 NMFS scallop surveys, with largest densities in the HC, and notably high biomass in a few areas south of Long Island (Figure 2).

**Figure 2. Biomass chart for the Mid-Atlantic from the 2010 and 2011 NMFS sea scallop surveys (Note that the scale of the legends for each year are not identical).**



The 2011 surveys show that in the DMV, biomass is much lower (10 million lb) than what was estimated in the 2010 survey (21 million lb). All three surveys saw a clear decline in biomass compared to 2010 surveys. The SMAST survey, which occurred in May 2011, reported total biomass in that area to be 5,939 mt or about 13 million lb, of which 10 million lb were exploitable size. In June 2011, the NEFSC dredge surveyed the area with a total biomass estimate of 7.2 million lb. In 2011, the majority of the fishing effort occurred during the first 4 months of the fishing year (i.e., March through June). The VIMS dredge surveyed the area in October 2011, after the vast majority of 2011 trips were taken, and estimated 3.7 to 4.2 million lb of exploitable biomass, depending on which survey dredge and SH:MW conversion was used.

For comparison, in 2010, the biomass estimate of the resource in DMV from the NEFSC dredge survey was 8,687 mt (about 19 million lb and 13,920 mt from the SMAST survey (about 30.7 million lb, 20 million lb of exploitable biomass). The combined estimate from these surveys was 10,873 mt, about 24 million lb. VIMS did not survey DMV in 2010.

This reduction in biomass resulted in reduced catch rates in DMV during FY 2011, as seen through the decrease over time in landings-per-unit-effort (LPUE) (Table 5-7). In addition, very few LAGC IFQ vessels chose to harvest their scallop IFQ in DMV in FY 2011. Out of the fleet-



wide allocation of 593 DMV trips in FY 2011, only 69 were taken (See Table 8). Usually, LAGC IFQ vessels take advantage of their fleet-wide access area trips. For comparison, in FY 2010, when biomass was much higher in DMV, LAGC vessels took 98.6 percent of their fleet-wide DMV trip allocation (total of 714 trips), resulting in the area closing to IFQ vessels in January 2011 for the remainder of FY 2010. More information on LAGC IFQ access area trip monitoring for recent scallop FYs is located here: <http://www.nero.noaa.gov/ro/fso/scal.htm>.

**Table 5. LPUE from full-time trips (All trips >1200 lb., includes compensation trips)**

Month	Number of trips	Scallop lb.	Average lb./trip	Average LPUE
3	167	2516653	15070	2028
4	81	1218452	15043	1812
5	53	740866	13979	1714
6	26	288308	11089	1403
7	9	114967	12774	1390
9	8	41475	5184	1082
11	7	108819	15546	1254
12	6	65777	10963	950
<b>Grand Total</b>	<b>361</b>	<b>5130861</b>	<b>14213</b>	<b>1812</b>

**Table 6. LPUE from full-time trips by category (All trips >1200 lb., includes compensation trips)**

Category	Month	Number of trips	Scallop lb.	Average lb./trip	Average LPUE
<b>FT DR</b>	3	124	1957478	15786	2112
	4	62	955015	15403	1897
	5	42	616906	14688	1803
	6	21	245106	11672	1530
	7	7	100038	14291	1563
	9	7	39619	5660	1148
	11	7	108819	15546	1254
	12	6	65777	10963	950
<b>FT DR Total</b>		<b>280</b>	<b>4124302</b>	<b>14730</b>	<b>1880</b>
<b>FT SMD</b>	3	32	418557	13080	1617
	4	17	243339	14314	1517
	5	10	111035	11104	1295
<b>FT SMD Total</b>		<b>66</b>	<b>814940</b>	<b>12348</b>	<b>1452</b>
<b>FT TRW</b>	3	11	140618	12783	2276
<b>FT TRW Total</b>		<b>15</b>	<b>191619</b>	<b>12775</b>	<b>2117</b>

**Table 7. LPUE from full-time trips by category (All trips >1200 lb., excludes compensation trips)**

Category	Month	Number of trips	Scallop lb.	Average lb./trip	Average LPUE
FT DR	3	108	1798010	16648	2135
	4	50	815796	16316	1920
	5	29	489588	16882	1880
	6	11	176184	16017	1735
	11	6	105106	17518	1339
<b>FT DR Total</b>		<b>214</b>	<b>3526072</b>	<b>16477</b>	<b>1973</b>
FT SMD	3	25	362363	14495	1696
	4	13	219158	16858	1615
<b>FT SMD Total</b>		<b>44</b>	<b>669211</b>	<b>15209</b>	<b>1623</b>
FT TRW	3	9	121539	13504	2274
<b>FT TRW Total</b>		<b>11</b>	<b>152867</b>	<b>13897</b>	<b>2121</b>

**Table 8. Fleet-wide trip allocation and usage for LAGC IFQ vessels in DMV during FY 2011. The low level of trip usage in this area by the IFQ fleet supports the recent survey results indicating that DMV biomass is at very low levels.**

Date	Period		Cumulative	
	Trips	Percent of Quota (593 trips)	Trips	Percent of Quota (593 Trips)
Mar-11	5	0.8	5	0.8
Apr-11	3	0.5	8	1.3
May-11	12	2	20	3.4
Jun-11	15	2.5	35	5.9
Jul-11	1	0.2	36	6.1
Aug-11	0	0	36	6.1
Sep-11	2	0.3	38	6.4
Oct-11	3	0.5	41	6.9
Nov-11	6	1	47	7.9
Dec-11	3	0.5	50	8.4
Jan-12	6	1	56	9.4
Feb-12	13	2.2	69	11.6

*Recruitment*

Moderately strong recruitment was observed on Georges Bank in 2011 (2009 year class), especially in the South Channel, on the Northern Edge of CAI, and in a small area of the Southeast part of CAII (Figure 3). Recruitment in the Mid-Atlantic continues to be poor following observation of a good year class in 2008, and extremely spatially limited (Figure 4). Most areas of recruitment were observed in DMV, with a few small pockets in the waters south of Long Island. Looking at trends for both portions of the scallop stock there is a strong recruitment pattern in place currently for Georges Bank, with four years in a row of particularly productive recruitment. The drop-off in the Mid-Atlantic is somewhat drastic, but it is not

inconsistent with the variable pattern shown by the stock of several strong years followed by a drop-off and recovery.

Figure 3. Recruitment chart for Georges Bank from the 2011 NMFS sea scallop survey

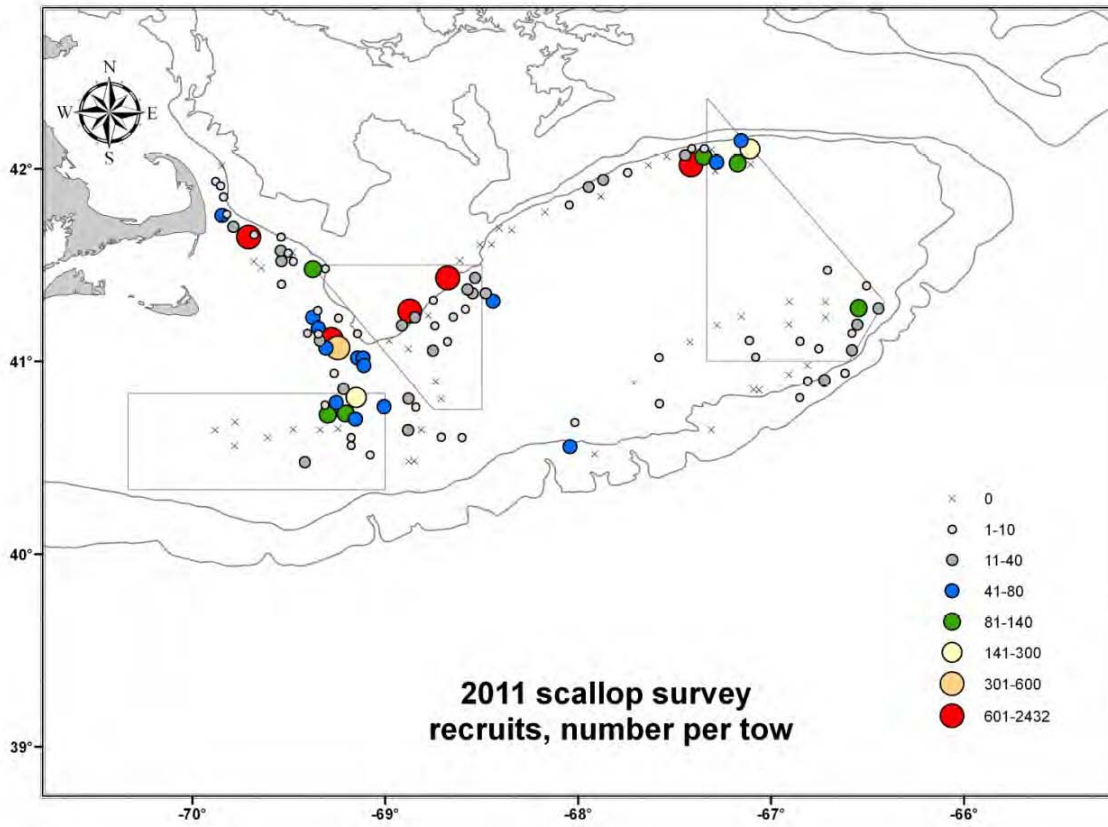
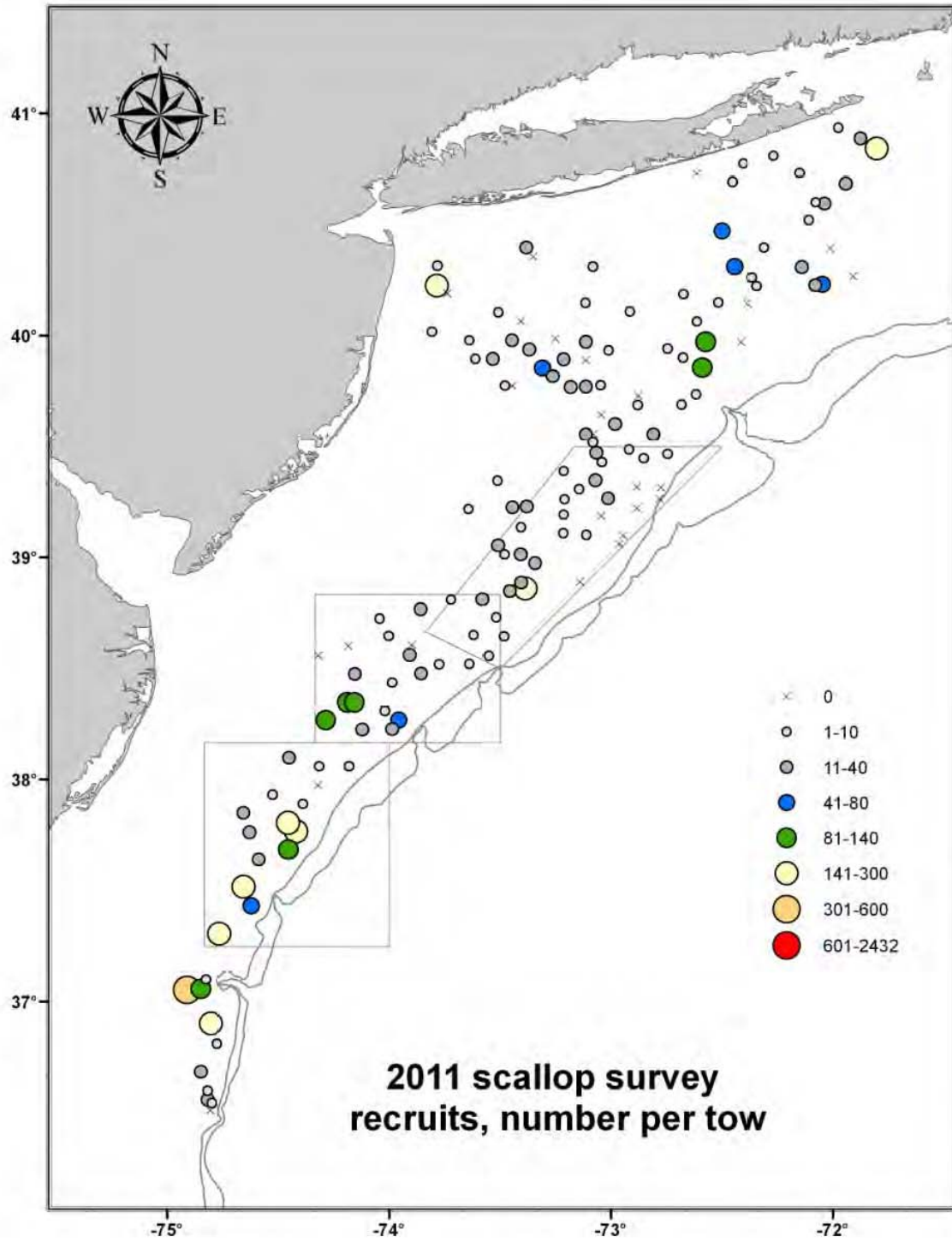


Figure 4. Recruitment chart for the Mid-Atlantic from the 2011 NMFS sea scallop survey

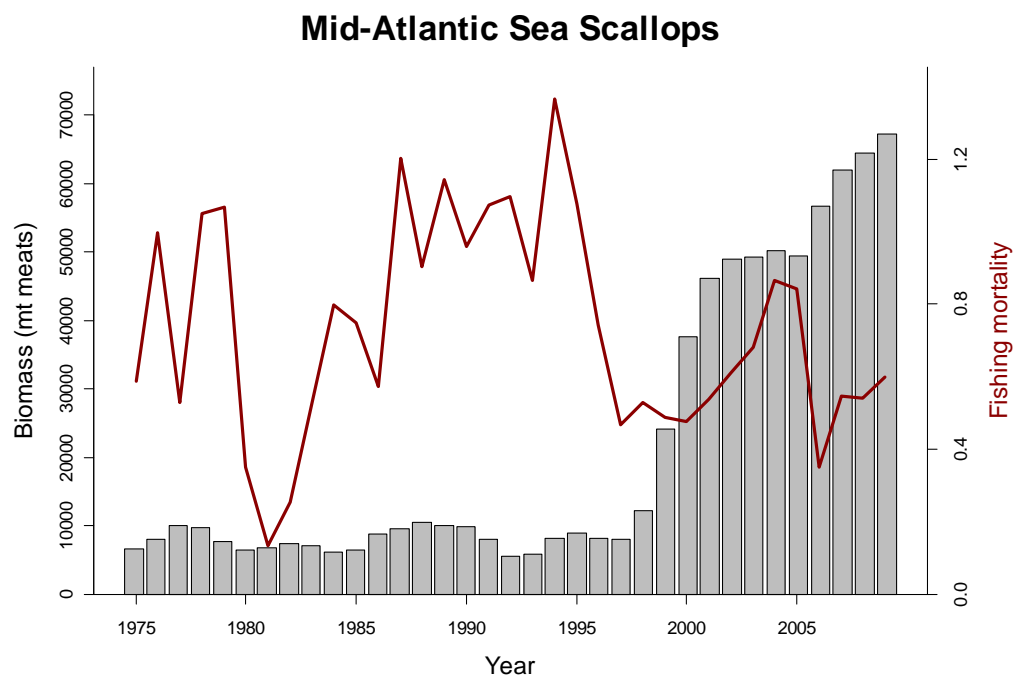
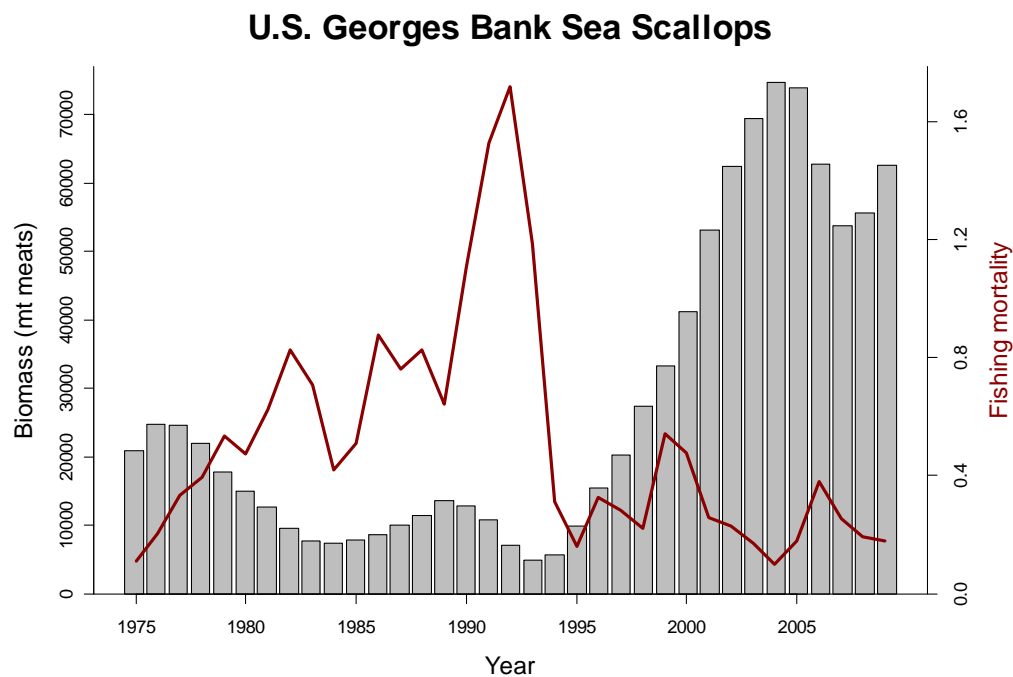


### *Mortality*

Four types of mortality are accounted for in the assessment of the sea scallop resource: natural mortality, and three components of fishing mortality, due to discards, incidental fishing mortality (non-catch fishing mortality), and landings. The updated stock assessment established new values for natural mortality on both stocks. The new estimates are  $M = 0.12$  for Georges Bank, and  $M = 0.15$  for the Mid-Atlantic (NEFSC, 2010), compared to 0.10 used for the resource overall in previous assessments. Discard mortality occurs when scallops are discarded on directed scallop trips because they are too small to be economically profitable to shuck or due to high-grading during access area trips to previously-closed areas. Total discard mortality is estimated at 20% (NEFSC, 2007). Incidental mortality is non-landed mortality associated with scallop dredges that likely kill and injure some scallops that are contacted but not caught by crushing their shells. The most recent assessment in 2010 used 0.20 on Georges Bank and 0.10 in the Mid-Atlantic (NEFSC, 2010), compared to earlier values of 0.15 on Georges Bank and 0.04 for Mid-Atlantic. The increase in assumed values for both natural and incidental mortality is expected to reduce the productivity potential of the stock, which is likely to cause the model to produce less (over) optimistic projections moving forward.

Finally, fishing mortality, the mortality associated with scallop landings on directed scallop trips, was calculated separately for Georges Bank and the Mid-Atlantic because of differences in growth rates. Fishing mortality peaked for both stocks in the early 1990s, but has decreased substantially since then as tighter regulations were put into place including area closures and days-at-sea limits, and biomass levels recovered. In general,  $F$  has remained fairly stable on Georges Bank since 1995, and the Mid-Atlantic has shown larger fluctuations and an overall higher  $F$  (Figure 5). The formal stock status update was prepared through FY 2009 as part of SARC 50 (NEFSC, 2010), and the  $F_{max}$  reference point was changed to  $F_{msy}$ .  $F_{msy}$  for the whole stock was estimated from the Stochastic Yield Model (SYM) to be 0.38. SARC 50 estimated that overall fishing mortality in 2009 was 0.38, consistent with recent years. Since the fishing mortality in 2009 was equal to  $F_{msy}$ , overfishing did not occur ( $F$  must be above the threshold). The fishing mortality for 2010 and 2011 will be estimated later this spring.

**Figure 5. Fishing mortality (red line) and biomass estimates (y-1, gray bars) from the Catch-At-Age Size-At-Age (CASA) model for scallops on Georges Bank (top) and in the Mid-Atlantic (bottom), through 2009. Updated estimates through 2011 are not available until late spring 2012.**



## 4.2 Non-Target Species

Non-target species (sometimes referred to as incidental catch or bycatch) include species caught by scallop gear that are both landed and not landed, including small scallops. The impacts of the scallop fishery on bycatch have been minimized to the extent practicable through management measures involving ring size, larger twine top, limits on effort, etc. In general, rotational area management is designed to improve and maintain high scallop yield, while minimizing impacts

on groundfish mortality and other finfish catches. Access programs may even reduce fishing mortality for some finfish species, because the total amount of fishing time in access areas is low compared with fishing time in open areas due to differences in LPUE. Incidental catch is sometimes higher in access areas compared to open areas, but in general total scallop landings is also usually higher in access areas.

Potential non-target species caught incidentally in the scallop fishery were identified in Amendment 15 and Framework 23 based on discard information from the 2009 SBRM report (NEFSC 2009) and various assessments such as GARM III and the Skates Data-poor Workshop. Based on a report presented by NEFSC (2009), the Scallop PDT identified the following species as having more than 5% of total estimated catch from discards in the scallop fishery: monkfish, skate (overall), and windowpane flounder. The status of these species is listed in Table 9.

Data from GARM III show that the scallop fishery caught more than 5% of the bycatch (compared to overall catch) for some multispecies stocks by region. Georges Bank and Southern New England yellowtail flounder were caught in amounts greater than 5%, but Cape Cod yellowtail only has occasional spikes over 5%. Although there is greater than 5% caught in both the Georges Bank /Gulf of Maine and Southern New England /Mid-Atlantic regions for windowpane flounder, the catch is generally greater in Southern New England / Mid-Atlantic. The Skate Data-poor Working Group identified the greatest bycatch for the scallop fishery as little and winter skates. See Table 9 for the current status of these species (Source: <http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm>).

**Table 9. Status of non-target species known to be caught in scallop fishing gear (GB – Georges Bank; GOM – Gulf of Maine; MA – Mid-Atlantic; SNE-Southern New England).**

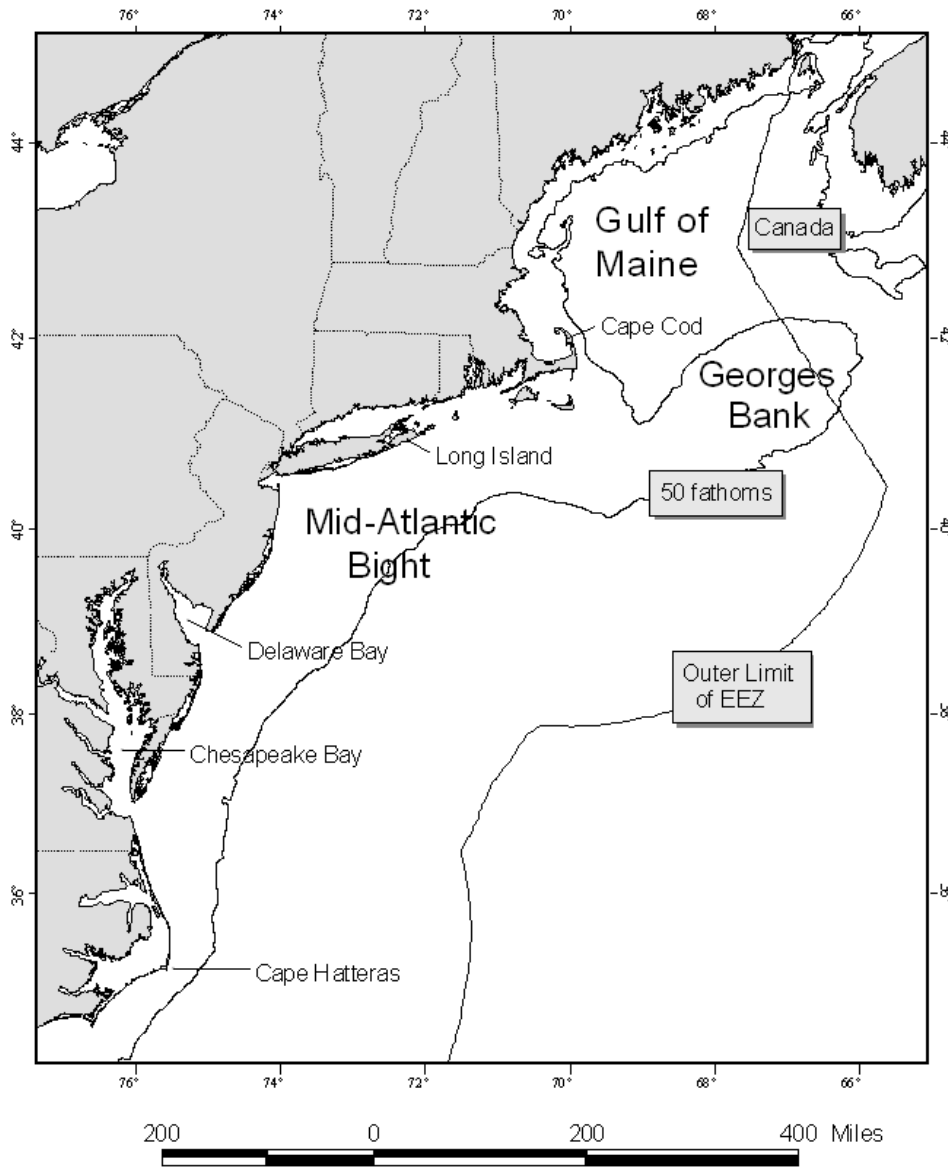
<i>Species</i>	<i>Stock</i>	<i>Overfished?</i>	<i>Overfishing?</i>
Summer flounder (fluke)	Mid-Atlantic Coast	No	No
Monkfish	GOM/Northern GB	No	No
Monkfish	Southern GB/MA	No	No
Northeast Skate Complex	Barndoor skate	No	No
Northeast Skate Complex	Clearnose skate	No	No
Northeast Skate Complex	Little skate	No	No
Northeast Skate Complex	Rosette skate	No	No
Northeast Skate Complex	Smooth skate	No	No
Northeast Skate Complex	Thorny skate	Yes	No
Multispecies	Windowpane - GOM/GB	Yes	Yes
Multispecies	Windowpane - SNE/MA	No	No
Multispecies	Winter flounder - GB	No	No
Multispecies	Winter flounder - GOM	Unknown	No
Multispecies	Winter flounder - SNE/MA	Yes	No
Multispecies	Yellowtail flounder - CC/GOM	Yes	Yes
Multispecies	Yellowtail flounder - GB	Yes	No
Multispecies	Yellowtail flounder - SNE/MA	Yes	Yes
Atlantic Surfclam	Mid-Atlantic Coast	No	No
Ocean Quahog	Atlantic Coast	No	No

### 4.3 Physical Environment and Essential Fish Habitat

The Northeast U.S. Shelf Ecosystem includes the area from the Gulf of Maine south to Cape Hatteras, extending from the coast seaward to the edge of the continental shelf, including the slope sea offshore to the Gulf Stream to a depth of 2,000 m (Figure 14, Sherman et al. 1996). Four distinct sub-regions are identified: the Gulf of Maine, Georges Bank, the Mid-Atlantic Bight, and the continental slope. For more information, refer to Amendment 11 and Stevenson et al. (2004). Primarily relevant to the scallop fishery are Georges Bank and the Mid-Atlantic Bight, although some fishing also occurs in the Gulf of Maine.



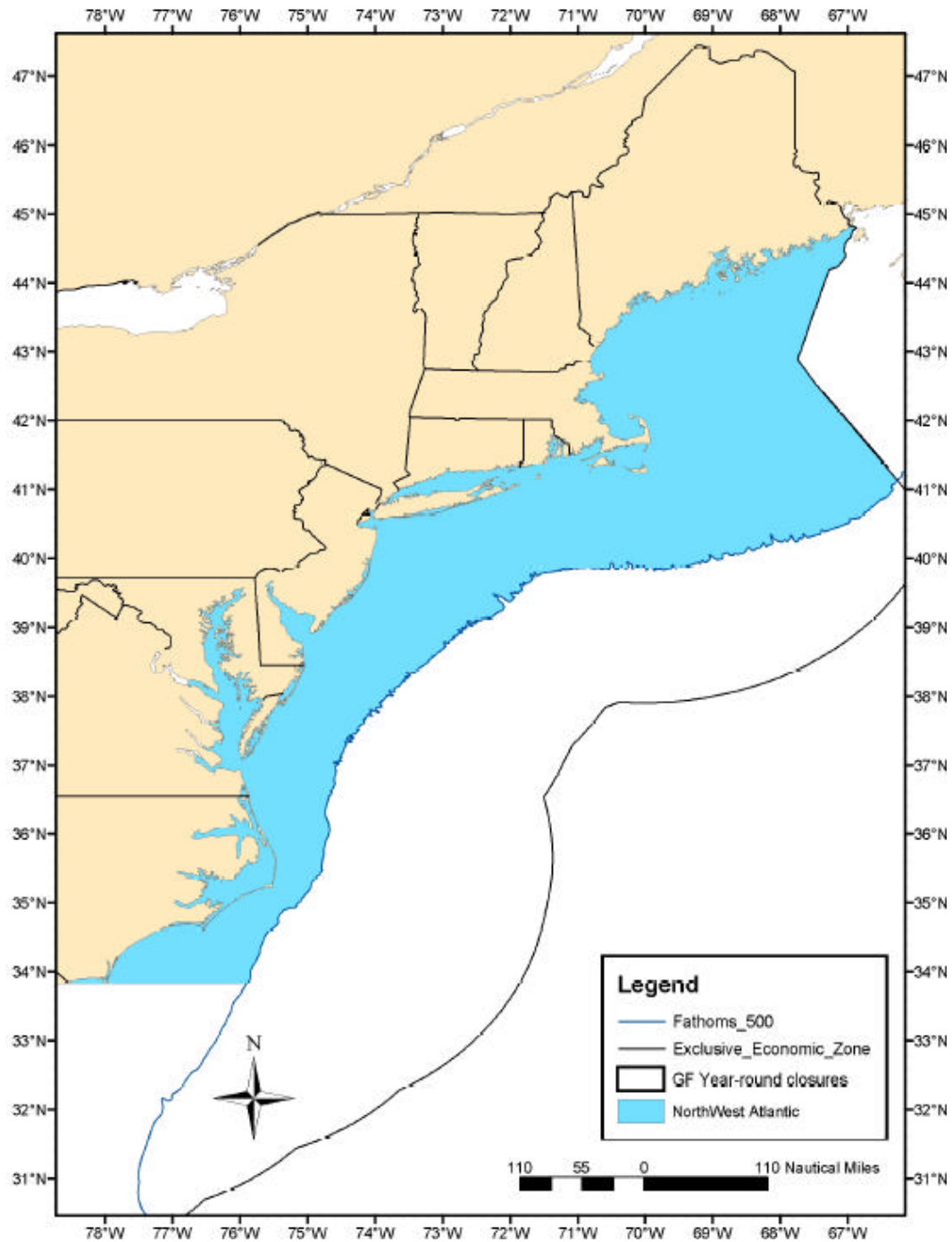
**Figure 6. Northeast U.S Shelf Ecosystem**



The Atlantic sea scallop fishery is prosecuted in concentrated areas in and around Georges Bank and off the Mid-Atlantic coast, in waters extending from the near-coast out to the edge of the continental shelf (Figure 7). Atlantic sea scallops occur primarily in depths less than 110 meters on sand, gravel, shells, and cobble substrates (Hart et al. 2004). This area, which could potentially be affected by the preferred alternative, has been identified as EFH for various species. These species include American plaice, Atlantic cod, Atlantic halibut, Atlantic herring, Atlantic sea scallop, Atlantic surfclam, Atlantic wolfish, barndoor skate, black sea bass, clearnose skate, haddock, little skate, longfin squid, monkfish, ocean pout, ocean quahog, pollock, red hake, redfish, rosette skate, scup, silver hake, smooth skate, summer flounder, thorny skate, tilefish, white hake, windowpane flounder, winter flounder, witch flounder and yellowtail flounder. For more information on the geographic area, depth, and EFH description for each applicable life stage of these species, refer to Table 45 of the scallop Amendment 15 EIS.

Most of the current EFH designations were developed in NEFMC Essential Fish Habitat Omnibus Amendment 1 (1998). Most recently, Amendment 16 to the Northeast Multispecies FMP adds Atlantic wolffish to the management unit and includes an EFH designation for the species. For additional information, refer to the Omnibus Amendment and the other FMP documents listed in Table 28 of the scallop Amendment 15 EIS. In addition, summaries of EFH descriptions and maps for Northeast region species can be accessed at <http://www.nero.noaa.gov/hcd/webintro.html>. Designations for all species are being reviewed and updated in NEFMC Essential Fish Habitat Omnibus Amendment 2.

Figure 7. Geographic extent of the Atlantic sea scallop fishery



#### 4.4 Protected Resources

The following protected species are found in the environment in which the sea scallop fishery is prosecuted. A number of them are listed under the Endangered Species Act of 1973 (ESA) as endangered or threatened, while others are identified as protected under the Marine Mammal Protection Act of 1972 (MMPA). An update and summary is provided here to facilitate consideration of the species most likely to interact with the scallop fishery relative to the preferred alternative.

A more complete description of protected resources inhabiting the action area is provided in Amendment 15 to the Sea Scallop FMP (See Amendment 15 to the Atlantic Sea Scallop Fishery Management Plan, Section 4.3, Protected Species, for a complete list. An electronic version of the document is available at <http://www.nefmc.org/scallops/index.html>).

**Cetaceans**

	<b>Status</b>
North Atlantic right whale ( <i>Eubalaena glacialis</i> )	Endangered
Humpback whale ( <i>Megaptera novaeangliae</i> )	Endangered
Fin whale ( <i>Balaenoptera physalus</i> )	Endangered
Blue whale ( <i>Balaenoptera musculus</i> )	Endangered
Sei whale ( <i>Balaenoptera borealis</i> )	Endangered
Sperm whale ( <i>Physeter macrocephalus</i> )	Endangered
Minke whale ( <i>Balaenoptera acutorostrata</i> )	Protected
Beaked whale ( <i>Ziphius</i> and <i>Mesoplodon spp.</i> )	Protected
Pilot whale ( <i>Globicephala spp.</i> )	Protected
Spotted and striped dolphin ( <i>Stenella spp.</i> )	Protected
Risso's dolphin ( <i>Grampus griseus</i> )	Protected
White-sided dolphin ( <i>Lagenorhynchus acutus</i> )	Protected
Common dolphin ( <i>Delphinus delphis</i> )	Protected
Bottlenose dolphin: coastal stocks ( <i>Tursiops truncatus</i> )	Protected
Harbor porpoise ( <i>Phocoena phocoena</i> )	Protected

**Pinnipeds**

Harbor seal ( <i>Phoca vitulina</i> )	Protected
Gray seal ( <i>Halichoerus grypus</i> )	Protected
Harp seal ( <i>Phoca groenlandica</i> )	Protected
Hooded seal ( <i>Cystophora cristata</i> )	Protected

**Sea Turtles**

Leatherback sea turtle ( <i>Dermochelys coriacea</i> )	Endangered
Kemp's ridley sea turtle ( <i>Lepidochelys kempii</i> )	Endangered
Green sea turtle ( <i>Chelonia mydas</i> )	Endangered <sup>2</sup>
Loggerhead sea turtle – NWA DPS ( <i>Caretta caretta</i> )	Threatened <sup>3</sup>

**Fish**

Shortnose sturgeon ( <i>Acipenser brevirostrum</i> )	Endangered
Atlantic salmon ( <i>Salmo salar</i> )	Endangered
Atlantic sturgeon ( <i>Acipenser oxyrinchus oxyrinchus</i> )	Endangered/Threatened <sup>4</sup>

<sup>2</sup> Green sea turtles in U.S. waters are listed as threatened except for the Florida breeding population, which is listed as endangered. Due to the inability to distinguish between these populations away from the nesting beach, green sea turtles are considered endangered wherever they occur in U.S. waters.

<sup>3</sup> NWA DPS = Northwest Atlantic distinct population segment which encompasses loggerheads found north of the equator, south of 60° N latitude, and west of 40° W longitude.

<sup>4</sup> Atlantic sturgeon were listed under the ESA on February 6, 2011.

### ***Threatened and Endangered Species Not Likely to be Affected by the Alternatives under Consideration***

According to the most recent Biological Opinion (Opinion) issued by NMFS on March 14, 2008 (and amended on February 5, 2009), the agency has previously determined that species not likely to be affected by the Atlantic Sea Scallop FMP or by the operation of the fishery include the shortnose sturgeon, the Gulf of Maine distinct population segment (DPS) of Atlantic salmon, hawksbill sea turtles, and the following whales: North Atlantic right, humpback, fin, sei, blue, and sperm whales, all of which are listed as endangered species under the ESA. NMFS also concluded that the continued authorization of the sea scallop fishery would not have any adverse impacts on cetacean prey, and that it would not affect the oceanographic conditions that are conducive for calving and nursing of large cetaceans. Refer to Section 4.3.1.1 of the scallop Amendment 15 EIS for a complete description regarding species not likely to be affected by the alternatives under consideration. These species descriptions include the cetaceans and pinnipeds listed above. In addition, it is noted that according to the 2012 List of Fisheries, there have been no documented marine mammal species interactions with either the sea scallop dredge fishery or the Atlantic shellfish bottom trawl fishery; therefore, the scallop fishery is considered a Category III fishery under the MMPA (i.e., a remote likelihood or no known incidental mortality and serious injuries of marine mammals).

### ***Threatened and Endangered Species Potentially Affected Adversely by the Alternatives under Consideration***

#### ***Sea Turtles***

In the 2008 Opinion, NMFS determined that the action being considered may adversely affect, but is not likely to jeopardize the continued existence of the following ESA-listed sea turtle species: loggerhead, leatherback, Kemp's ridley, and green sea turtles. Loggerheads are the most commonly observed species of sea turtle taken in the scallop fishery. The distribution and behavior of the other three sea turtle species makes interactions with this fishery less likely. To reduce the capture of sea turtles, NMFS has put measures in place for turtle conservation both under and outside of the Scallop FMP. See to Sections 4.3.2.1 through 4.3.2.5 of the scallop Amendment 15 EIS for a complete description of turtle background information, impacts, and conservation measures.

On September 22, 2011, NMFS and USFWS issued a final rule (76 FR 58868), determining that the loggerhead sea turtle is composed of nine DPSs (as defined in Conant *et al.* 2009) that constitute species that may be listed as threatened or endangered under the ESA. Five DPSs were listed as endangered (North Pacific Ocean, South Pacific Ocean, North Indian Ocean, Northeast Atlantic Ocean, and Mediterranean Sea), and four DPSs were listed as threatened (Northwest Atlantic Ocean, South Atlantic Ocean, Southeast Indo-Pacific Ocean, and Southwest Indian Ocean). Of these nine DPSs, only the Northwest Atlantic (NWA) DPS is likely to be present in areas where the scallop fishery currently operates. Hereafter, all discussions regarding loggerhead sea turtles will be in reference to the NWA DPS.

Although originally proposed as endangered in March 2010, the NWA DPS was ultimately determined to be threatened based on review of nesting data available after the proposed rule was published, information provided in public comments on the proposed rule, and further discussions within the agencies. The two primary factors considered were population abundance and population trend. NMFS and USFWS found that an endangered status for the NWA DPS

was not warranted given the large size of the nesting population, the overall nesting population remains widespread, the trend for the nesting population appears to be stabilizing, and substantial conservation efforts are underway to address threats.

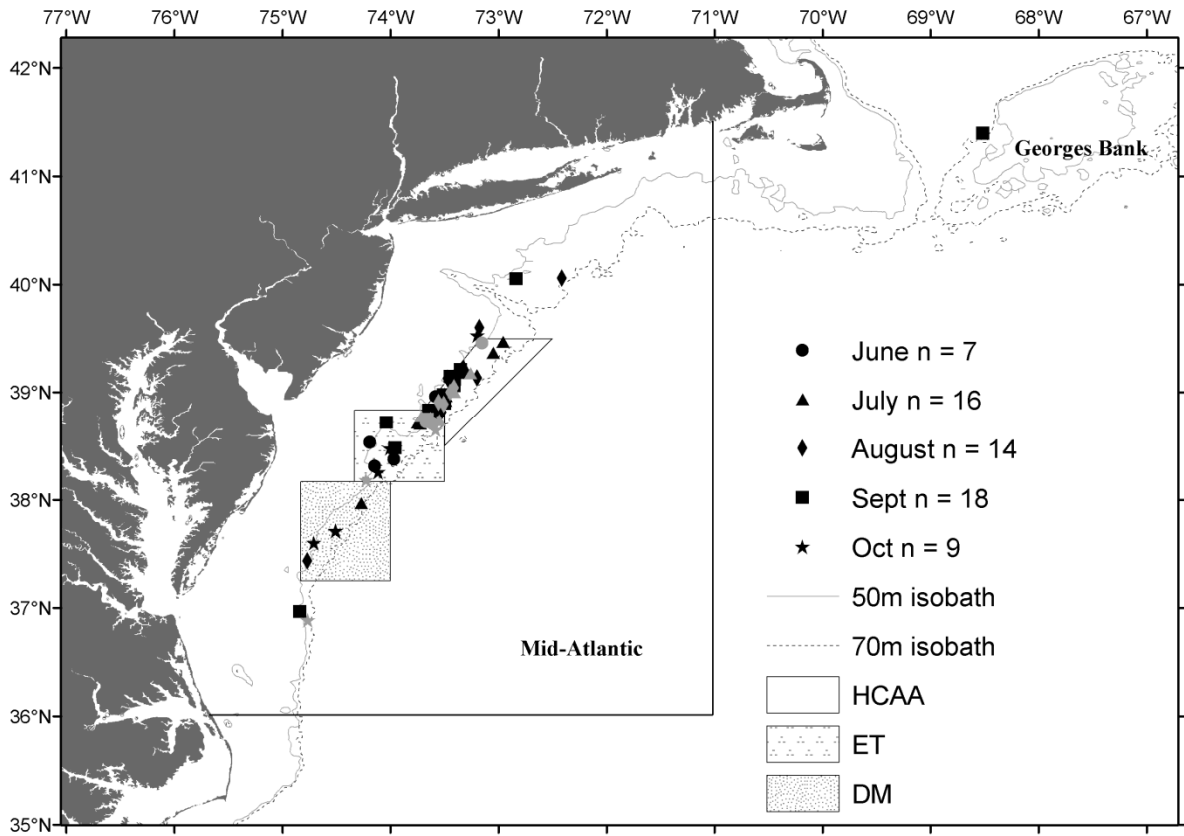
The September 2011 final rule also noted that critical habitat for the NWA DPS will be designated in a future rulemaking. Information from the public related to the identification of critical habitat, essential physical or biological features for this species, and other relevant impacts of a critical habitat designation was solicited.

In addition to the relisting of loggerheads as DPSs, there is new information on the effects of the scallop fishery on sea turtles which is causing NMFS to reassess the impacts of the scallop fishery on ESA-listed species in a new Opinion. In this future Opinion, NMFS will assess the impacts of the scallop fishery on only the NWA DPS of loggerhead sea turtles, rather than the species as a whole. Regardless of the new listing of the NWA DPS and any new information on sea turtles that has become available since the 2008 Opinion, the Council and NMFS must still adhere to the reasonable and prudent measures and terms and conditions of the 2008 Opinion until a new Opinion is issued.

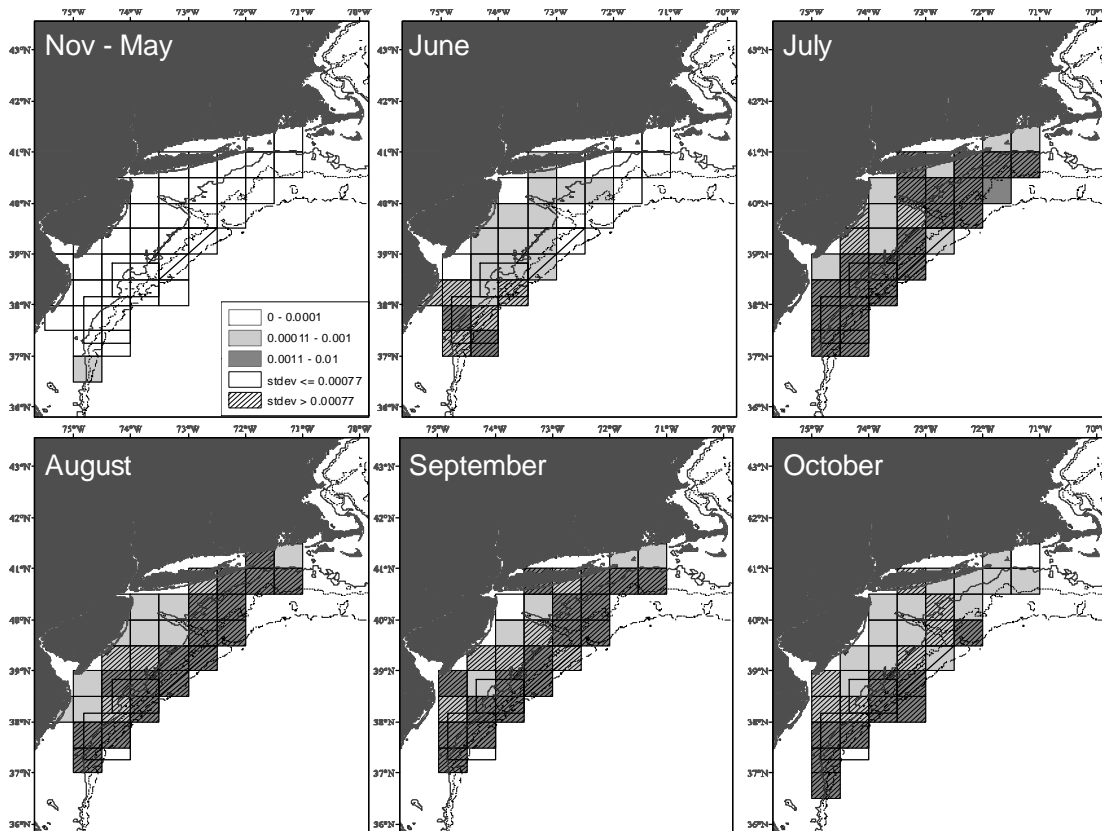
*Specifics on sea turtle bycatch data in the scallop dredge fishery*

Turtle interactions in scallop dredge gear have been observed in the Mid-Atlantic from June through October (Figure 8). Predicted interaction rates were relatively high from July through October (Figure 9). The lack of documented interactions in a given month where turtles and fishing effort are suspected to co-occur could be due to low observer coverage or to turtle behaviors which prevent them from interacting with the gear.

**Figure 8. Distribution of observed sea turtles in scallop dredge gear during on-watch hauls 2001-2008, showing boundaries of Mid-Atlantic study area and Mid-Atlantic scallop fishery management areas. Unidentified turtle species are in gray, and the turtle outside of the study area is a Kemp's ridley. HCAA = Hudson Canyon Access Areas, ET = Elephant Trunk, DM = Delmarva. From Murray 2011.**



**Figure 9. Distribution over 30' squares of average predicted interaction rates without chain mats on VTR dredge trips, 2001-2008. Squares with fewer than 10 Vessel trip report (VTR) trips have been excluded. The 50m, 70m, and 200m bathymetry lines are shown. From north to south, the Hudson Canyon Access Area, Elephant Trunk, and Delmarva scallop management areas are represented by the black rectangles. Median standard deviation around rates over all months = 0.00077. From Murray 2011.**



### Atlantic Sturgeon

On October 6, 2010, NMFS published two proposed rules to list five DPSs of Atlantic sturgeon under the ESA. NMFS is proposing to list four DPSs of Atlantic sturgeon as endangered (New York Bight, Chesapeake Bay, Carolina and South Atlantic) and one DPS as threatened (Gulf of Maine). Based on the most recent status review, Atlantic sturgeon sub-adults and adults utilize ocean waters from Canada to the Saint Johns River, Florida. As a result, commercial fishing activities occurring in Atlantic Ocean waters have the potential to impact one or more of the Atlantic sturgeon DPSs.

On February 6, 2012, NMFS listed five distinct population segments of Atlantic sturgeon under the Endangered Species Act (77 FR 5880). The Chesapeake Bay, New York Bight, Carolina, and South Atlantic populations of Atlantic sturgeon are listed as endangered, while the Gulf of Maine population is listed as threatened. NMFS is working to update the Biological Opinion for the scallop fishery to fully describe any impacts of the scallop fishery on Atlantic sturgeon, and define any measures needed to mitigate those impacts, if necessary.

Atlantic sturgeon are known to be captured in sink gillnet, drift gillnet, and otter trawl gear (Stein et al. 2004, ASMFC TC 2007). Of these gear types, sink gillnet gear poses the greatest known risk of mortality for bycatch sturgeon (ASMFC TC 2007). At present, the scallop fishery does



not have a gillnet component. However, a recent analysis from the NMFS Northeast Fisheries Science Center indicates that there is some potential, albeit low, for Atlantic sturgeon bycatch in scallop trawl gear. Scallop dredge gear, on the other hand, is not known to pose a bycatch risk for Atlantic sturgeon despite many hours of observer coverage for this gear type. In fact, there are no reports of Atlantic sturgeon captures in scallop dredge gear in the NMFS Observer database (based on Stein et al. 2004a and ASMFC TC 2007). Because the scallop fishery predominantly uses dredge gear (there were 367 active dredge vessels in the fishery in 2010, compared to only 11 trawl vessels) (Table 7 and Table 8, Appendix I of FW 23), it is likely that impacts to Atlantic sturgeon from the fishery will be minor and extremely unlikely that mortalities would result in the event of bycatch in the trawl fishery. Furthermore, the 11 trawl vessels, as characterized by their permit type, do not actually fish with trawl gear even though they are permitted to do so. Section 1.1.6 of FW 23 Appendix I describes the scallop catch by permit type and gear type. The number of vessels with full-time trawl permits has decreased continuously and has been at 11 full-time trawl permitted vessels since 2008. But, according to the 2009-2010 VTR data, the majority of these vessels (10 out of 11 in 2010) landed scallops using dredge gear even though they had a trawl permit. Vessels with trawl permits are allowed to fish for scallops with dredge gear, but vessels with dredge permits are not allowed to fish with trawl gear. A vessel with a trawl permit but using dredge gear can always revert back to trawl gear, but that is not very likely since dredge gear is more effective in most areas. Therefore, at 11 trawl permits, the impacts of this fishery on Atlantic sturgeon are likely to be minor, and even less than that since only one vessel used trawl gear to harvest scallops in 2010.

Based on this information, the scallop fishery may interact with Atlantic sturgeon from now until the time an updated Biological Opinion is completed for the fishery to fully evaluate its impact on the Atlantic sturgeon DPSs, but the magnitude of that interaction during the timeframe of interest is not likely to cause an appreciable reduction in survival and recovery. It is anticipated that any measures, terms and conditions included in an updated Biological Opinion will further reduce already low impacts to the species.

The completion of the updated Biological Opinion for the scallop fishery should occur in the summer of 2012. Given the low rate of interactions in the scallop fishery, significant impacts or appreciable reduction in survival and recovery are not expected.

## **4.5 Human Communities (Economic and Social Trends)**

### **4.5.1 Introduction**

This section of the document summarizes 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. See Framework 23 for further details and graphs on economic and social trends.

### **4.5.2 Trends in Landings, prices and revenues**

In the fishing years 2009 and 2010, the landings from the northeast sea scallop fishery stayed above 56 million pounds, surpassing the levels observed historically (Figure 10). The recovery of the scallop resource and consequent increase in landings and revenues is striking given that average scallop landings per year were below 16 million pounds during the 1994-1998 fishing

years, less than one-third of the present level of landings. The landings by the general category vessels declined, however, in 2010 as a result of the Amendment 11 implementation that restricts TAC for the limited access general category (LAGC) fishery to 5.5% of the total catch, which is now specified as the ACL under Amendment 15.

**Figure 10. Scallop landings by permit category and fishing year (dealer data)**

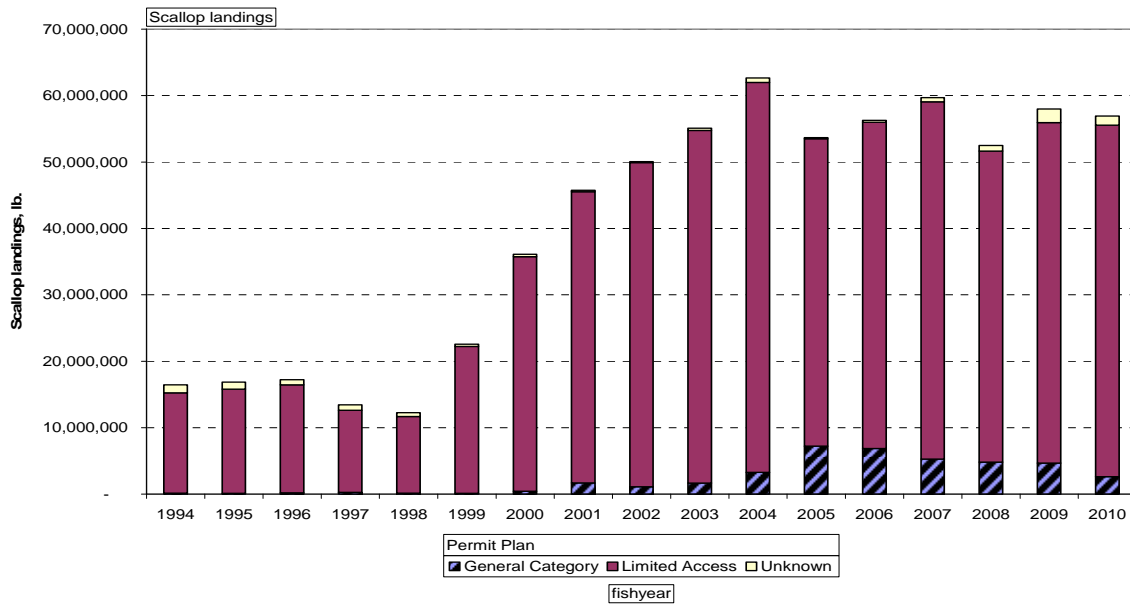
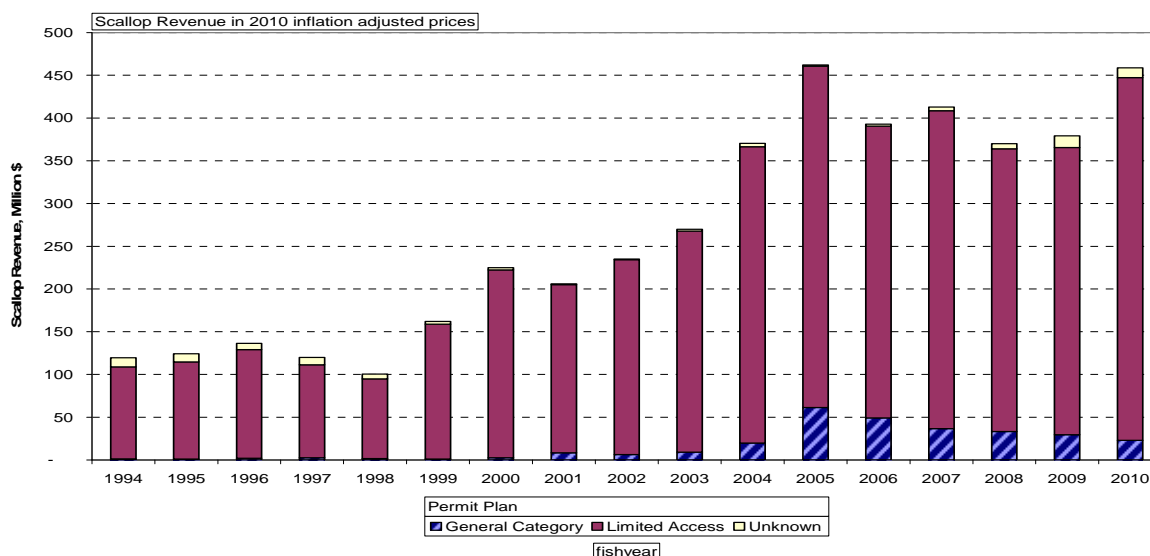


Figure 11 shows that total fleet revenues tripled from about \$120 million in 1994 to over \$450 million in 2010 (in inflation-adjusted 2010 dollars). The increase in total fleet revenue was mainly due to the increase in scallop landings and the increase in the number of active limited access vessels during the same period. Landings amounted to over 55 million lb. and revenue increased to more than \$550 million so far in the FY 2011 (March to Dec. 2011).

**Figure 11. Scallop revenue by permit category and fishing year in 2010 inflation adjusted prices (dealer data)**



The trends in revenue per full-time vessel were similar to the trends for the fleet as a whole. The average scallop revenue per limited access vessel tripled from about \$400,000 in 1994 to over \$1,200,000 in 2010 as a result of higher landings combined with an increase in ex-vessel price to about \$8.00 per pound of scallops. Average price for scallops increased to about \$9.90 per pound so far in FY 2011 (March – December 2011), thus average revenue per full-time vessel is expected to exceed the levels in FY 2010 (See Table 10). Although total landing and the number of general category vessels declined after the implementation of Amendment 11, average revenue for LAGC IFQ fishery increased to nearly \$75,000 in 2010 from an average of \$38,000 in 2008.

**Table 10. Available FY 2011 scallop landings and price per lb (January and February 2012 data are not yet available).**

Fishing Year	MONTH	Sum of SSCVAL	Sum of SSCLAND	Price	
2010	1	15022610	1534914	9.787265	
	2	19694728	2079377	9.471456	
2010 Total		34717338	3614291	9.605574	
2011	3	48573364	5229544	9.28826	
	4	61486393	6315561	9.735698	
	5	88837901	9006999	9.863208	
	6	68736200	7223223	9.516001	
	7	47064992	4740285	9.928726	
	8	90634469	9275592	9.771287	
	9	53910079	5165918	10.43572	
	10	36249401	3532352	10.26211	
	11	28591819	2694624	10.61069	
	12	20624409	1880815	10.96568	
	2011 Total		544709027	55064913	9.892125
	Grand Total		579426365	58679204	9.874476

### 4.5.3 Trends in effort and LPUE

There has been a steady decline in the total DAS used by the limited access scallop vessels from FYs 1994 to 2010 as a result of the effort-reduction measures since Amendment 4 (1994). Total DAS-used declined further in 2008 to 24,121 days as the open area DAS allocations are reduced by 30 percent from 51 days to 35 days per full-time vessel, but increased to 26,300 in 2009 as the limited access vessels received access area trips (5 trips per vessel). Open area DAS allocations were slightly higher in 2010 (38 DAS versus 37 DAS in 2009). Total DAS-used by the limited access vessels were slightly higher in FY 2010 despite lower number of access area trips (4 trips per vessel).

The impact of the decline in effort below 30,000 DAS since 2005 (with the exception of 2007) on scallop revenue per vessel was small, however, due to the increase in LPUE from about 1600 pounds per day-at-sea in 2007 to over 2000 pounds per DAS since 2010. For trends in LPUE by permit plan and category please see Figure 7 and Figure 8 in Appendix I of Framework 23.

### 4.5.4 Trends in the meat count and size composition of scallops

Average scallop meat count has declined continuously since 1999 as a result of effort-reduction measures, area closures, and an increase in ring sizes implemented by the Scallop FMP. The share of larger scallops increased with the share of U10 scallops rising to 15 percent in 2009 and 2010 compared to less than 10 percent in 2000-2004. The share of 11-20 count scallops increased from 12 percent in 1999 to 63 percent in 2010 and, the share of 30 or more count scallops declined from 30 percent in 1999 to less than 1 percent in 2010. Larger scallops priced higher than the smaller scallops contributed to the increase in average scallop prices in recent years despite larger landings. The size composition of landings has continued to increase toward larger scallops. The proportion of 11-20 count scallops in total landings increased from about 58 percent in 2010 (March to November ) to about 78 percent in 2011 (March to November) while the share of 20-30 count scallop declined from 17 percent in 2010 to 3.7 percent in 2011 (Table 11).

**Table 11. Scallop landings (in lb) by market size as a percent of total.**

MONTHGRP	MKTSIZE	2010	2011
Dec-Feb	UNDER 10		
	COUNT	0.40%	NA
	11-20 COUNT	5.10%	NA
	21-30 COUNT	3.89%	NA
	31+	0.02%	NA
	NA	0.35%	NA
Mar-Nov	UNDER 10		
	COUNT	15.05%	15.68%
	11-20 COUNT	58.36%	78.47%
	21-30 COUNT	15.34%	3.78%
	31+	0.09%	0.51%
	NA	1.40%	1.56%
<b>Grand Total</b>		<b>100.00%</b>	<b>100.00%</b>

#### **4.5.5 The trends in participation by permit, vessel characteristics and gear type**

The limited access scallop fishery consists of 347 vessels. It is primarily full-time, with 250 full-time dredge, 52 full-time small dredge vessels and 11 full-time net boats. No occasional permits are left in the fishery because those 32 were converted to part-time small dredge in 2010. Similarly, there are only two part-time permits because most were converted into full-time dredge vessels after 2000.

Since 2001, there has been considerable growth in fishing effort and landings by vessels with general category permits, primarily as a result of resource recovery and higher scallop prices. Amendment 11 implemented a limited entry program for the general category fishery reducing the number of general category permits after 2007. In 2011 application year, there were 288 LAGC IFQ permits, 102 NGOM and 279 incidental catch permits in the fishery totaling 670 permits. Although not all vessels with general category permits were active in the years preceding 2008, there is no question that the number of vessels (and owners) that hold a limited access general category permit under the Amendment 11 regulations are less than the number of general category vessels that were active prior to 2008.

#### **4.5.6 Landings by gear type**

Most limited access category effort is from vessels using scallop dredges, including small dredges. The number of vessels using scallop trawl gear has decreased continuously and has been at 11 full-time trawl vessels since 2006. In comparison, there has been an increase in the numbers of full-time and part-time small dredge vessels after 2002. About 80 percent of the scallop pounds are landed by full-time dredge and about 13 percent landed by full-time small dredge vessels since the 2007 fishing year.

Most general category effort is, and has been, from vessels using scallop dredge and other trawl gear. The percentages of scallop landings show that landings made with a scallop dredge in 2011 continue to be the highest compared to other general category gear types.

#### **4.5.7 Trends in ownership patterns in the scallop fishery**

The scallop limited access fishery has a highly concentrated ownership structure. According to the ownership data for 2011, only 71 out of 343 vessels belonged to single boat owners. The rest were owned by several individuals and/or different corporations with ownership interest in more than one vessel. This in contrast to the LAGC IFQ Fishery which is dominated mostly with single boat owners (155 out of 259 vessels belonged to the single boat owners).

#### **4.5.8 Trends in Foreign Trade**

One of most substantial change in the trend for foreign trade for scallops after 1999 was the striking increase in scallop exports. The increase in landings especially of larger scallops led to a tripling of U.S. exports of scallops from about 5 million lb in 1999 to about 25 million lb per year since 2005. In 2010, exports were about 25 million lb and imports were 51.9 million lb. From January to October 2011, exports were 26.5 million lb and imports were 52.5 million lb. A rebuilt scallop fishery benefited the nation by reducing the scallop trade deficit from over \$230 million in 1994 to less than \$90 million since 2009.

#### **4.5.9 Dependence on the Scallop Fishery**

Both full-time and part-time limited access vessels had a high dependence on scallops as a source of their income. Full-time limited access vessels had a high dependence on scallops as a source of their income and the majority of the full-time vessels (94 percent) derived more than 90 percent of their revenue from the scallop fishery in 2010. Comparatively, part-time limited access vessels were less dependent on the scallop fishery in 2010, with only 46 percent of part-time vessels earning more than 90 percent of their revenue from scallops.

LAGC permit holders (IFQ and NGOM) are less dependent on scallops compared to vessels with limited access permits. In 2010, only about half (49 percent) of IFQ permitted vessels earned greater than 50 percent of their revenue from scallops. Among NGOM permitted vessels, only 31 percent earned more than 50 percent of their revenue from scallops in 2010. Scallops still comprise the largest proportion of the revenue for these general category vessels, accounting for 59 - 66 percent of the revenue for IFQ and NGOM vessels respectively.

The relative ease with which a vessel is able to switch between fisheries is an indicator of the dependence on any one fishery or species. The general category fishery has a large percentage of vessels that have permits in other fisheries and landings of corresponding species. Please refer to Framework 23 Appendix 1 (Table 34 through Table 39) to see the number and percentage of scallop vessels with permits from other fishery management plan, as well as the number scallop vessels that have actual landings of other species. These tables also describe a limited access fishery where a large percentage of vessels have permits in other fisheries but relatively few vessels actually landing species other than scallops.

#### **4.5.10 Trends in scallop landings by port**

The landed value of scallops by port landing fluctuated from 1994 through 2010 for many ports. During the past five years, five ports have consistently brought in the most landed value: New Bedford, MA; Cape May, NJ; Newport News, VA; Barnegat Light/Long Beach, NJ, and Seaford, VA. In addition to bringing in the most landed value, in 1994 scallop landings represented more than 37 percent of the total landed value for New Bedford, MA and Cape May, NJ, and more than 65 percent of the total landed value for Newport News and Barnegat Light/Long Beach, NJ. This increased in 2010 to 84 percent and 87 percent for New Bedford, MA and Cape May, NJ, respectively, and 97 percent and 90 percent for Newport News and Barnegat Light/Long Beach, NJ, respectively. Collectively, 2010 has the highest landed value of scallops since 2005. 75 percent of ports saw an increase in the percentage of landed scallop value to total landed value in 2010 compared to 2009.

The largest numbers of permitted limited access scallop vessels are currently in the ports of New Bedford, MA and Cape May, NJ, which represent 38 percent and 19 percent of the total, respectively. Of the 349 permitted limited access vessels in 2010, 199 originate from New Bedford, MA and Cape May, NJ. In addition to having the greatest number of permitted limited access scallop vessels, New Bedford, MA also has the greatest number of general category scallop vessels. Gloucester, MA, Boston, MA, and Point Judith, RI, also have high numbers of general category scallop vessels. These major ports can also be described by the characteristics of the vessels that hail from each port. On average limited access vessels are larger, by length and weight, than their general category counterparts.

## **5.0 ENVIRONMENTAL CONSEQUENCES- IMPACTS OF THE PROPOSED ACTION AND ALTERNATIVES**

### **5.1 Alternative 1: No Action Alternative**

This section describes the expected impacts of the No Action alternative on the Atlantic sea scallop resource, non-target species, physical environment and EFH, protected species, and human communities.

#### **5.1.1 Impacts to the Atlantic Sea Scallop Resource**

Under No Action, full-time vessels would each receive a total of 4 access area trips (18,000 lb/trip), but the specific allocations would differ. For example, all full-time vessels would get one trip into HC and CAII, but their other 2 trips could come from two of the following areas: DMV, CAI, NLS, and HC (i.e., some vessels will have 2 trips into HC). Part-time vessels would have a total of 2 trips (14,000 lb/trip), which they could use in any open area (i.e., one trip could be taken in CAI, and the other in HC, etc.). LAGC IFQ vessels would have fleet-wide trips into access areas (Table 1). Although these access area trips allow vessels to fish trips in scallop access areas, their landings are still applied to their IFQ allocations. As a result, LAGC IFQ vessels may choose to fish in open areas instead if the LPUE in the open areas is better than in some access areas, which has been the case in the last few years.

If the DMV is open for FY 2012, under the No Action Alternative, the 156 full-time vessels with DMV trip allocations will have the opportunity to fish those trips. The No Action allocation is based on what Framework 22 estimated would be harvestable in FY 2012, based on 2010 survey results. The 2010 scallop biomass estimate of the resource in DMV from the federal dredge survey was 8,687 mt (about 19 million pounds) and 13,920 mt from the SMAST survey (about 30.7 million pounds, 20 million pounds exploitable biomass). The combined estimate from these surveys was 10,873 mt, or about 24 million pounds. Framework 22 determined that the DMV could support the entire full-time fleet (313 vessels) fishing one trip in FY 2012 and half the full-time fleet (156 vessels) fishing one trip in the area in FY 2012. If all 156 vessels fish their one trip, at a possession limit of 18,000 lb/trip, 2,808,000 lb of scallops could be fished out of DMV. This amount does not include any harvested scallops from compensation trips taken in the first two months of FY 2012 (i.e., March and April) that were from FY 2011 trips that were not completed in that FY. It is unlikely that part-time and LAGC IFQ vessels will choose to fish in the DMV when their allocations provide them the flexibility to fish in other, more productive areas.

Updated biomass estimates from 2011 surveys for the DMV are substantially lower than expected. The SMAST survey reported total biomass in that area to be 5,939 mt, about 13 million pounds, of which 10 million pounds were exploitable size. This survey was conducted in May when some 2012 fishing had already occurred, but more expected during the remainder of the year. In June, the federal dredge surveyed the area with a total biomass estimate of 7.2 million pounds. Finally, the VIMS dredge surveyed the area in October, after the vast majority of FY 2011 scallop trips were taken. VIMS estimated an exploitable biomass of 3.7 to 4.2 million pounds, depending on the survey dredge and SH:MW conversion used. Therefore, it is probable that catch rates will be much lower for this access area than originally projected, and lower than other access areas that will be open to vessels in FY 2012. When catch rates decrease, vessels must fish longer to get the same total catch. This increases area swept, or time

that fishing gear is in the water, and results in negative impacts on the scallop resource due to increased mortality (e.g., the more area swept, the more smaller, unprofitable scallops are caught and discarded). In addition, fishing in the DMV in FY 2012 when the biomass levels are low could result in localized overfishing of the area. The 2011 surveys also show that there are small scallops, or recruitment, present within the DMV. Under No Action, these small scallops would not be protected for FY 2012. This could have negative impacts on recruitment in the short and medium term, and could reduce the long-term biomass and yield from the DMV. Protecting scallop recruitment and allowing it to grow is the cornerstone of the area rotation management program. Therefore, protecting recruitment in the Mid-Atlantic is essential for the future success of area rotation to maximize yield.

Under the No Action alternative, it may be possible for vessels that do not fish their DMV trips in FY 2012 to be provided with some sort of compensation in FY 2012 through Framework 24, which sets the specifications for FY 2013 and 2014. However, delaying this issue could have negative impacts on scallop allocations for FYs 2013 and 2014 and complicate annual ACL accounting. Shifting this catch to FY 2013 could increase the risk that the limited access fleet's scallop ACL would be exceeded in FY 2013, unless allocations were unnecessarily held back in 2013 to account for this effort that was intended to be harvested in 2012.

In summary, the No Action alternative would have negative impacts on the scallop resource as it would increase the mortality of smaller scallops in the short-term and potentially impact overall recruitment in the Mid-Atlantic in the long-term.

### **5.1.2 Impacts to Non-Target Species**

Under the No Action Alternative, the 156 full-time vessels with FY 2012 DMV trip allocations will have the opportunity to fish those trips. It is unlikely that part-time and LAGC IFQ vessels will choose to fish in the DMV when their allocations provide them the flexibility to fish in other, more productive areas. As previously explained, due to the lower-than-expected biomass estimates in the DMV, it is probable that catch rates will be much lower for this access area than originally projected, resulting in longer fishing trips and higher area swept. This could result in negative impacts on non-target species in DMV (e.g., fluke, monkfish, and skates), which could be caught incidentally during these longer dredge tows, potentially resulting in increased mortality of those species.

### **5.1.3 Impacts to the Physical Environment and EFH**

Under the No Action Alternative, the 156 full-time vessels with FY 2012 DMV trip allocations will have the opportunity to fish those trips. It is unlikely that part-time and LAGC IFQ vessels will choose to fish in the DMV when their allocations provide them the flexibility to fish in other, more productive areas. Updated biomass estimates from 2011 surveys for the DMV are substantially lower than expected. Therefore, as previously explained, it is probable that catch rates will be much lower for this access area than originally projected, and lower than other access areas that will be open to vessels in FY 2012. When catch rates decrease, vessels must fish longer to get the same total catch. This increases area swept, or time that fishing gear is in the water, and results in negative impacts on the physical environment and EFH. It is expected that the area swept would increase over the course of the year as meat weights drop off and biomass in DMV decreases. As such, negative impacts to the physical environment and EFH



from a scallop trip in DMV would increase over the course of the fishing year and be greatest at the end of FY 2012.

Under the No Action alternative, it may be possible for vessels that do not fish their DMV trips in FY 2012 to be provided with some sort of compensation in FY 2012 through Framework 24, which sets the specifications for FY 2013 and 2014. If vessels choose not to fish their DMV allocations in FY 2012 and instead waited until Framework 24 potentially compensated them in FY 2013, by reallocating those unused trips to a time or place with a lower area swept, this could potentially mitigate some of the negative impacts to the physical environment and EFH.

#### **5.1.4 Impacts to Protected Species**

Under the No Action Alternative, the 156 full-time vessels with FY 2012 DMV trip allocations will have the opportunity to fish those trips. It is unlikely that part-time and LAGC IFQ vessels will choose to fish in the DMV when their allocations provide them the flexibility to fish in other, more productive areas.

Updated biomass estimates from 2011 surveys for the DMV are substantially lower than expected. Therefore, as previously explained, it is probable that catch rates will be much lower for this access area than originally projected, and lower than other access areas that will be open to vessels in FY 2012. When catch rates decrease, vessels must fish longer to get the same total catch. This increases the time that fishing gear is in the water (area swept), and subsequently increases the chance for protected species interactions, particularly sea turtles. Therefore, the No Action Alternative would likely result in negative impacts on protected species. It is expected that the area swept would increase over the course of the year as meat weights drop off and biomass in DMV decreases. In FY 2011, the majority of DMV trips were taken in the first few months of the fishing year (i.e., March through June) but continued throughout the FY. Sea turtles are primarily in the area from June through October (Figures 8 and 9; also see Section 4.3.1 of Framework 23 for more information), when area swept per scallop trip in DMV would be increasing as the resource continues to be fished. As such, negative impacts to protected species from a scallop trip in DMV would be greatest during this time period in FY 2012.

#### **5.1.5 Impacts to Human Communities**

Under the No Action Alternative, the 156 full-time vessels with FY 2012 DMV trip allocations will have the opportunity to fish those trips. It is unlikely that part-time and LAGC IFQ vessels will choose to fish in the DMV when their allocations provide them the flexibility to fish in other, more productive areas. As previously explained, the low catch rates for this access area means that vessels must fish longer to get the same total catch. This results in higher trip costs for those vessels. In FY 2011, the average trip length in DMV was 6.8 days and average LPUE was 1,109 lb/DAS (Table 12). In general, FY 2012 full-time access area trips are estimated to be worth \$180,000 in gross vessel revenue (e.g., with each trip having a possession limit of 18,000 lb of scallops and assuming a scallop price of \$10/lb). This results in slightly over \$2 million in gross fleet revenues for split trips (i.e., when half of the full-time fleet is allocated a trip into an access area, as is the case in DMV in FY 2012). Assuming a 28-percent increase in fuel prices from 2011 to 2012, as well as an average FY 2012 scallop price of \$10/lb, Table 13 shows the estimated trip costs and net revenue for a DMV full-time trip in FY 2012.

Because average trip costs are likely around \$2,048/day, longer trips in DMV, if it remained open under No Action, would result in higher trips costs and lower net vessel and fleet revenues than if those trips were allocated to a more productive access area. Assuming LPUE in FY 2012 is similar on average to the LPUE from FY 2011, DMV trips would cost \$33,341 per vessel, resulting in total fleet net revenues of \$22.9 million (Table 13) for the 156 full-time vessels with DMV trip allocations. Because the average FY 2011 trip length and LPUE include trips taken earlier in the FY, when DMV biomass levels were higher, it is likely that FY 2012 trips will be longer and costs will be higher, resulting in lower than estimated net revenues. Over the short-term, with fewer scallops and longer trips, vessels with DMV allocations would be making less money than vessel with non-DMV access area trips. Because of the recruitment noticed in this area (relatively large, compared to the rest of the Mid-Atlantic), allowing DMV to remain open under No Action would not maximize economic benefits over the long-term. Negative resource impacts in FY 2013 and FY 2014 are possible and would have negative economic impacts.

Under the No Action alternative, it may be possible for vessels that do not fish their DMV trips in FY 2012 to be provided with some sort of compensation in FY 2012 through Framework 24, which sets the specifications for FY 2013 and 2014. However, as previously mentioned, delaying this issue could have negative impacts on scallop allocations for FYs 2013 and 2014 and complicate annual ACL accounting. Shifting this catch to FY 2013 could increase the risk that the limited access fleet's scallop ACL would be exceeded in FY 2013, unless allocations were unnecessarily held back in 2013 to account for this effort that was intended to be harvested in 2012. If the limited access fleet's ACL was exceeded in 2013, accountability measures (AMs) would be put in place for FY 2014 (e.g., days-at-sea reductions for all limited access vessels that equate to the amount of the previous year's ACL overage). The fleet would not be able to catch their full allocations of scallops under the AM, which would result in negative economic impacts in future FYs.

**Table 12. DMV limited access trip length and LPUE by month and overall in FY 2011. Note that CAI was only open to fishing from August 2011 to January 2012. Note that trip length includes compensation trips from previously broken trips.**

<b>Delmarva Scallop Access Area</b>				
<b>Month</b>	<b>Trip Number</b>	<b>Average Length (days)</b>	<b>Total Landings (lb)</b>	<b>Average LPUE</b>
Mar-11	168	7.4	2,529,988	2,010
Apr-11	96	7.9	1,318,505	1,663
May-11	72	7.8	892,763	1,509
Jun-11	39	6.8	346,060	1,135
Jul-11	15	7.0	127,545	1,001
Aug-11	3	5.2	17,905	1,333
Sep-11	9	4.1	42,644	1,057
Oct-11	6	5.6	29,440	700
Nov-11	14	7.4	114,433	765
Dec-11	7	9.5	66,398	845
Jan-12	5	6.4	24,906	649
Feb-12	8	6.7	35,429	637
Total	442	6.8	5,546,016	1,109

**Table 13. Estimated net revenues and costs per full-time limited access FY 2012 DMV trip.**

<b>Diesel-gas index</b>	<b>2010</b>	<b>2011</b>
Assumed Percent Increase	1	1.28
Trip Costs per DAS (\$)	1,600	2,048

<b>FY 2012 Net Revenues and Costs for DMV trips</b>	
Number of trips	156
Average price	\$10
Possession limit (lb)	18,000
LPUE-DMV (lb/DAS)*	1,109
Trip duration (days)**	16.2
Total trip costs per vessel	\$33,241
Total revenue per vessel	\$180,000
Net revenue per vessel	\$146,759
Total fleet landings	\$2,808,000
Total fleet revenue	\$28,080,000
Total fleet trip costs	\$5,185,558
Total fleet net revenue	\$22,894,442

\* Based on FY 2011 DMV average LPUE

\*\* Assuming entire possession limit is landed in one trip and not multiple trips

## **5.2 Alternative 2: Closure of DMV and Trip Reallocation into CAI Proposed Action (Preferred)**

This section describes the expected impacts of the preferred alternative (Proposed Action) on the Atlantic sea scallop resource, non-target species, physical environment and EFH, protected species, and human communities.

### **5.2.1 Impacts to the Atlantic Sea Scallop Resource**

If the DMV is closed for FY 2012 under the Proposed Action, no scallop vessels will be able to fish in this area. Instead, the Proposed Action would reallocate the 156 full-time vessel DMV trips allocated at the start of FY 2012 to CAI, resulting in a total of 313 allocated CAI trips. All full-time vessels would continue to have a total of 4 access area trips and part-time vessels would continue to have a total of 2 access area trips. LAGC IFQ vessels' IFQ base allocations would also remain the same for FY 2012.

Closing DMV under this alternative, and under Alternative 3, would protect recruitment in the Mid-Atlantic, which is essential for the future success of area rotation to maximize scallop yield over the long term.

The impacts to the Atlantic sea scallop resource are expected to be positive relative to the No Action Alternative and Alternative 3. CAI is the most suitable area to shift this effort, while maintaining the same overall allocations specified for FY 2012 through Framework 22. The size of the access area within CAI was recently increased in FY 2011 under Amendment 15, and it currently contains substantial biomass that has not experienced much fishing pressure over the

years. The updated 2011 biomass estimate for this area is about 28-40 million pounds, depending on the survey results used. Three different surveys were conducted in CAI in 2011: The Federal NEFSC dredge survey; the SMAST video survey (drop camera); and an intensive “Habcam” survey that tows a habitat mapping camera that takes a continuous stream of photos. Some of this biomass has already been harvested in FY 2011 (about 9 million pounds), but that leaves a substantial amount of biomass for access in FY 2012. Compared to the Mid-Atlantic, recruitment and biomass levels are high on Georges Bank, so shifting effort to this area should not have substantial impacts on the scallop resource and yield overall. Reallocating 36,000 lb of observer set-aside from DMV to CAI would have negligible impacts on the resource. The set-aside amount is very small, comparable to a total of two full-time vessel trips.

In addition, the scallops in CAI have likely reached their maximum yield because most of the animals in that area are large. For example, based on the SMAST CAI survey results, total biomass in 2011 is estimated to be 27.7 million pounds, and 25.1 million pounds of that are exploitable (91 percent). Therefore, it would be beneficial to harvest the scallops in CAI before yield declines as a result of senescence. Compared to No Action and the possibility of compensating vessels with DMV trip through Framework 24, the Proposed Alternative would reduce the risk of exceeding the 2013 ACL by keeping effort in the same FY for which it was allocated. Compared to Alternative 3, the Proposed Alternative optimizes scallop yield by reallocating DMV effort to another area with very high biomass levels. A split trip allocation equates to roughly 2.8 million pounds (157 vessels\*18,000 pounds). This a small fraction of the total exploitable biomass estimated to be in Closed Area I (about 10 percent based on 2011 survey results). Because CAI already has half a trip allocated to it for FY 2012 (i.e., 2.82 million lb), the total catch allocated for FY 2012 in this area under the Proposed Alternative would be doubled (i.e., 5.64 million lb), which would equate to about 20 percent of the total CAI exploitable biomass estimated by the 2011 survey results.

### **5.2.2 Impacts to Non-Target Species**

If the DMV is closed for FY 2012 under the Proposed Action, no scallop vessels will be able to fish in this area. Instead, the Proposed Action would reallocate the 156 full-time vessel DMV trips allocated at the start of FY 2012 to CAI, resulting in a total of 313 allocated CAI trips.

Under the Proposed Action, increased fishing effort would occur in CAI compared to the No Action and Alternative 3 (i.e., these alternatives would only provide half the allocation, 157 full-time trips, into CAI). This would potentially increase the amount of yellowtail bycatch caught by the scallop fishery in Georges Bank. Since the FY 2012 yellowtail flounder sub-ACL was specified in a previous Northeast multispecies action and would not be altered by this action, there is a potential risk that the Georges Bank yellowtail sub-ACL could be exceeded due to higher-than-estimated effort in this access area. Depending on the level of any potential overage in FY 2012, a portion of Georges Bank would close (statistical area 562) for a period of time that reflects the level of the overage. However, yellowtail flounder bycatch in CAI has been relatively low in recent years compared to other areas in Georges Bank, thus the risk that increased effort into this area under the Proposed Action would result in exceeding the yellowtail flounder sub-ACL is low.

More yellowtail flounder would be caught under the Proposed Alternative because there is little yellowtail flounder catch in HC and DMV. However, due to an increase in fishing effort in the

area compared to the other alternatives considered overall area swept would be lower under the Proposed Alternative compared to No Action, and to a lesser degree, Alternative 3. Therefore, overall, the Proposed Action would have negligible to low negative impacts on non-target species compared to No Action.

### **5.2.3 Impacts to the Physical Environment and EFH**

If the DMV is closed for FY 2012 under the Proposed Action, no scallop vessels will be able to fish in this area. Instead, the Proposed Action would reallocate the 156 full-time vessel DMV trips allocated at the start of FY 2012 to CAI, resulting in a total of 313 allocated CAI trips. All full-time vessels would continue to have a total of 4 access area trips and part-time vessels would continue to have a total of 2 access area trips. LAGC IFQ vessels' IFQ base allocations would also remain the same for FY 2012.

The impacts to the physical environment and EFH are expected to be positive relative to the No Action Alternative. The size of the access area within CAI was recently increased in FY 2011 under Amendment 15, and it currently contains substantial biomass that has not experienced much fishing pressure over the years. Therefore, bottom area swept under the Proposed Action is expected to be less than under the No Action Alternative. Bottom area swept is under Alternative 2 is also expected to be lower than under Alternative 3, as scallop biomass in CAI is higher than in HC. Although HC and DMV are both located in the sandy, more dynamic physical environment of the Mid-Atlantic, they have similar EFH. CAI's physical environment is made up of more cobble and granite structures. Although this sediment type is less dynamic than that in the Mid-Atlantic (i.e., recovery to disturbance of cobble environments tends to take longer than disturbance to sandy environments), fishing that occurs with lower area swept, resulting from faster fishing trips, minimizes the impacts to EFH.

### **5.2.4 Impacts to Protected Species**

The size of the access area within CAI was recently increased in FY 2011 under Amendment 15, and it currently contains substantial biomass that has not experienced much fishing pressure over the years. Therefore, area swept under the Proposed Action is expected to be less than under the No Action Alternative. Additionally, CAI has minimal, if any, turtle interactions. Therefore, the impacts of the Proposed Action on protected species are expected to be positive relative to the No Action alternative and Alternative 3, which both involve fishing effort in the Mid-Atlantic during times of the year when sea turtles are present (Figures 8 and 9).

Atlantic sturgeon are not known to be caught in scallop dredges, and vessels fishing in the Georges Bank access areas (i.e., CAI, CAII, NLS) can only use scallop dredges on those trips. In the mid-Atlantic, trawl vessels can be used in access areas (i.e., DMV and HC), although interactions with trawl gear and Atlantic sturgeon are rare and few limited access full-time vessels are permitted to use trawl gear. However, by closing the DMV and reallocating those trips to CAI in the Georges Bank, the potential for some level of interaction with this species in the Mid-Atlantic (which is where some DPSs were recently listed as endangered) is minimized compared to No Action and Alternative 3.

### **5.2.5 Impacts to Human Communities**

If the DMV is closed for FY 2012 under the Proposed Action, no scallop vessels will be able to fish in this area. Instead, the Proposed Action would reallocate the 156 full-time vessel DMV

trips allocated at the start of FY 2012 to CAI, a more productive area, resulting in a total of 313 allocated FY 2012 CAI trips. Because average trip costs are likely around \$2,048/day, and CAI trips are expected to be shorter than in DMV (e.g., due to higher biomass and similar to what occurred in FY 2011 (Table 14)), the Proposed Action would result in lower trip costs and higher net revenues per trip compared to No Action for the 156 vessels currently allocated FY 2012 DMV trips. In FY 2011, the average trip length in CAI was 5.9 days and average LPUE was 2,236 lb/DAS (Table 15). Assuming LPUE in FY 2012 is similar on average to LPUE in FY 2011, CAI trips would cost \$16,487 per vessel, \$16,754 less than the trip costs estimated for that vessel to take a DMV trip in FY 2012. Total fleet net revenue for those 156 that would be reallocated a CAI trip instead of a DMV trip is estimated to be \$25.5 million, \$2.6 million more than under No Action. The Proposed Action would also result in higher net revenues for full-time vessels and the scallop fleet overall, compared to Alternative 3, which would cut the total FY 2012 access area allocation of each full-time vessel by 9,000 lb, which would reduce potential gross vessel revenue by \$90,000 for all 313 full-time vessels. Under the Proposed Action, all full-time vessels would continue to have a total of 4 access area trips and part-time vessels would continue to have a total of 2 access area trips. This alternative would make access area trip allocations more comparable for the full-time fleet (i.e., no vessel is assigned a trip into a much less productive area); minimizing potential inequitable economic impacts in the FY 2012 random trip assignment. LAGC IFQ vessels' IFQ base allocations would also remain the same for FY 2012. Unlike the No Action alternative, which may result in unused trips from FY 2012 being reallocated in FY 2013 under Framework 24 management measures, access area trips under this alternative would be reallocated in the same FY, resulting in no increase in the potential risk of exceeding the limited access fleet's ACL in FY 2013. Overall, moving trips to CAI, where biomass is high, will reduce fishing costs and increase net vessel and fleet revenues in the short term and the long term.

In addition, the Proposed Action would allow for long-term economic gains by closing the DMV in FY 2012 and protecting scallop recruitment in that area. Closing DMV under this alternative, as well as under Alternative 3, would protect recruitment in the Mid-Atlantic, which is essential for the future success of area rotation to maximize scallop yield over the long term.

**Table 14. CAI limited access trip length and LPUE by month and overall in FY 2011. Note that CAI was only open to fishing from August 2011 to January 2012. . Note that trip length includes compensation trips from previously broken trips.**

<b>Closed Area I Scallop Access Area</b>				
<b>Month</b>	<b>Trip Number</b>	<b>Average Length (days)</b>	<b>Total Landings (lb)</b>	<b>Average LPUE</b>
Aug-11	388	6.4	6,483,121	2,701
Sep-11	81	5.7	1,076,678	2,179
Oct-11	37	6.8	508,716	1,987
Nov-11	11	5.7	146,577	2,075
Dec-11	13	5.3	161,585	2,213
Jan-12	3	5.7	41,168	2,264
Total	533	5.9	8,417,845	2,236

**Table 15. Estimated net revenues and costs per full-time limited access FY 2012 CAI trip.**

<b>Diesel-gas index</b>	<b>2010</b>	<b>2011</b>
Assumed Percent Increase	1	1.28
Trip Costs per DAS (\$)	1,600	2,048

<b>FY 2012 Net Revenues and Costs for CAI trips</b>	
Number of trips	156
Average price (\$)	10
Possession limit (lb)	18,000
LPUE-CAI (lb/DAS)*	2,236
Trip duration (days)**	8.1
Total trip costs per vessel	\$16,487
Total revenue per vessel	\$180,000
Net revenue per vessel	\$163,513
Total fleet landings	\$2,808,000
Total fleet revenue	\$28,080,000
Total fleet trip costs	\$2,571,907
Total fleet net revenue	\$25,508,093

\* Based on FY 2011 CAI average LPUE

\*\* Assuming entire possession limit is landed in one trip and not multiple trips

### **5.3 Alternative 3: Closure of DMV and Reallocating Full-Time Vessels a 9,000-lb trip into HC (resulting in a total number of 3.5 trips for all full-time vessels, rather than 4)**

This section describes the expected impacts of Alternative 3 on the Atlantic sea scallop resource, non-target species, physical environment and EFH, protected species, and human communities.

#### **5.3.1 Impacts to the Atlantic Sea Scallop Resource**

Under Alternative 3, DMV would close and each full-time vessel would have 2 trips into HC, one trip at 18,000 lb and one trip at 9,000 lb. The intent of this alternative is to take the original allocation for HC (i.e., half the full-time fleet gets 2 trips into HC and the other half has 1 trip) and distribute it evenly among the fleet. This would result in the full-time fleet receiving a total allocation of 3 trips at 18,000 lb and 1 trip at 9,000 lb (63,000 lb/full-time vessel), instead of 4 trips at 18,000 lb (72,000 lb/full-time vessel) under No Action and the Proposed Alternative. To cover the increase in the number of trips that would enter HC, this alternative would reallocate the observer set-aside allocated to DMV (36,000 lb) to HC, resulting in a total observer set-aside for HC of 143,980 lb in FY 2012.

Compared to No Action, where the trips would be fished in DMV, the trips in HC will likely be fished with lower area swept. Both Alternative 3 and the Proposed Action would have positive impacts on the scallop resource by protecting DMV scallop biomass and recruitment and reducing the risk of exceeding ACLs in FY 2012, compared to No Action. Alternative 3 is the

only alternative that does not shift allocated scallop area to another area (i.e., HC would have the same total allocations as under No Action, even with a DMV closure). However, moving effort to high biomass areas such as CAI (Proposed Alternative) would have minimal impacts compared to this alternative. Due to the reduced total catch (about 2.82 million pounds) in the short-term, Alternative 3 has the highest long-term benefits for the scallop resource compared to the other two alternatives. Reallocating 36,000 lb of observer set-aside from DMV to HC would have negligible impacts on the resource. This amount is very small, comparable to a total of two full-time vessel trips.

The HC is the only access area in the Mid-Atlantic with decent scallop biomass levels. Three surveys were conducted in that area in 2010: the federal survey (19,031 mt), SMAST video survey (16,858 mt), and VIMS dredge survey (18,679 mt). The overall combined estimate was 18,005 mt, or 39.7 million pounds. The PDT recently reviewed 2011 survey information and the estimate of biomass for HC is now 36.2 million pounds from the NEFSC dredge survey and 42.6 million pounds from the SMAST survey, VIMS did not survey that area in 2011. It is important to note that some 2011 fishing effort occurred before the 2011 surveys and some after. But overall biomass is still very strong in that area.

### **5.3.2 Impacts to Non-Target Species**

Under Alternative 3, DMV would close and each full-time vessel would have 2 trips into HC, one trip at 18,000 lb and one trip at 9,000 lb. The intent of this alternative is to take the original allocation for HC (i.e., half the full-time fleet gets 2 trips into HC and the other half has 1 trip) and distribute it evenly among the fleet. This would result in the full-time fleet receiving a total allocation of 3 trips at 18,000 lb and 1 trip at 9,000 lb (63,000 lb/full-time vessel), instead of 4 trips at 18,000 lb (72,000 lb/full-time vessel) under No Action and the Proposed Alternative.

As previously explained, due to the lower-than-expected biomass estimates in the DMV, it is probable that catch rates will be much lower for this access area than originally projected, resulting in longer fishing trips and higher area swept. Because both DMV and HC are located relatively close to one another in the Mid-Atlantic, the non-target species in those areas are similar. Trips would be allocated differently in HC than under No Action. Each full-time vessel would get 1 trip at 9,000 lb and 1 trip at 18,000 lb, rather than half the fleet getting 1 trip at 18,000 lb and the other half receiving 2 trips at 18,000 lb. This would result in more trips of shorter length in HC than under No Action. However, scallop biomass in HC is greater than in DMV and thus area swept would be lower. Therefore, due to the relatively high level of scallop biomass in HC, the overall impact of Alternative 3 on non-target species would be low positive compared to the No Action.

Compared to the Proposed Alternative, the specific negative impacts to yellowtail flounder would be much less under Alternative 3, since yellowtail flounder are not abundant in this area. As a result, this alternative does not increase the risk of exceeding the yellowtail flounder sub-ACLs in either Southern New England/Mid-Atlantic or Georges Bank in FY 2012.

### **5.3.3 Impacts to the Physical Environment and EFH**

Under Alternative 3, DMV would close and each full-time vessel would have 2 trips into HC, one trip at 18,000 lb and one trip at 9,000 lb. The intent of this alternative is to take the original allocation for HC (i.e., half the full-time fleet gets 2 trips into HC and the other half has 1 trip)



and distribute it evenly among the fleet. This would result in the full-time fleet receiving a total allocation of 3 trips at 18, 000 lb and 1 trip at 9,000 lb (63,000 lb/full-time vessel), instead of 4 trips at 18,000 lb (72,000 lb/full-time vessel) under No Action and the Proposed Alternative.

Compared to the No Action, where the trips would be fished in DMV, the trips in HC will likely be fished with lower area swept due to higher scallop biomass in HC than DMV. Since the physical environment and EFH is similar in both DMV and HC, Alternative 3 would have positive impacts on the physical environment by reducing the area swept. Compared with the Proposed Action, which has the most scallop biomass available to harvest, Alternative 3 would be expected to result in slightly more area swept (i.e., trips would be slightly longer in HC) and subsequently greater negative impacts on the physical environment and EFH.

#### **5.3.4 Impacts to Protected Species**

Both HC and DMV are in an area where sea turtles are known to be present. Based on observed sea turtles in the scallop dredge fishery, sea turtles are known to be present in HC for a longer period of time (See Section 4.4, Figures 8 & 9). Compared to No Action, where the trips would be fished in DMV, the trips in HC would likely be fished with less area swept. Therefore, Alternative 3 would have positive impacts on protected resources by reducing the area swept compared to the No Action. Because biomass is generally lower in the Mid-Atlantic compared to Georges Bank, Alternative 3 would result in slightly more area swept compared to the Proposed Action, but not as extreme as the level of area swept expected in DMV under No Action. Additionally, CAI has little to no known turtle interactions in scallop gear due to the fact that sea turtles are not known to migrate far north to the cold waters found in Georges Bank. Therefore, reallocation to CAI under Alternative 2 would be the more beneficial alternative for protected species than a reallocation to HC under Alternative 3.

In the mid-Atlantic, dredge and trawl gear can be used to fish for scallops in access areas. Atlantic sturgeon are not known to be caught in scallop dredges and interactions with trawl gear and Atlantic sturgeon are rare and few limited access full-time vessels are permitted to use trawl gear, and Atlantic sturgeon are not known to be caught in scallop dredges. However, there is a slightly higher potential for some level of interaction with the species in the Mid-Atlantic (which is where some DPSs were recently listed as endangered) if the DMV closes and more trips are reallocated into HC FY 2012, compared to the Proposed Action. The difference between the potential impacts on Atlantic sturgeon in the Mid-Atlantic is minimal. Therefore, Alternative 3 would have negligible impacts on Atlantic sturgeon compared to the No Action alternative.

#### **5.3.5 Impacts to Human Communities**

Under Alternative 3, DMV would close and each full-time vessel would have 2 trips into HC, one trip at 18,000 lb and one trip at 9,000 lb. The intent of this alternative is to take the original allocation for HC (i.e., half the full-time fleet gets 2 trips into HC and the other half has 1 trip) and distribute it evenly among the fleet. This would result in the full-time fleet receiving a total allocation of 3 trips at 18, 000 lb and 1 trip at 9,000 lb (63,000 lb/full-time vessel), instead of 4 trips at 18,000 lb (72,000 lb/full-time vessel) under No Action and the Proposed Alternative. Table 16 shows that the average trip length in HC was 5.9 days and average LPUE was 2,236 lb/DAS in FY 2011.

Similar to the Proposed Alternative, this alternative would make all allocations even across the full-time fleet, thus minimizing potential inequitable economic impacts that would affect only vessels with DMV allocations, as under No Action. However, because all full-time vessels would not receive 9,000 lb of scallops under Alternative 3, there would be short-term revenue losses in FY 2012 (e.g., estimated gross revenue loss of \$28 million, net revenue loss of \$25 million in ex-vessel revenue, and additional revenue loss experienced by shoreside businesses). Tables 17 – 18 show the estimated revenues for the 156 full-time revenues that were allocated full FY 2012 DMV trips, as well as the impact on revenues for all 313 full-time vessels under this alternative. The 156 vessels that would have their DMV trips reallocated to HC under this alternative are each estimated to incur a revenue loss of \$10.1 million and \$12.7 million, compared to No Action and the Preferred Alternative, respectively. Smaller scallop allocations to this portion of the fleet does potentially minimize the risk of exceeding the limited access fleet’s FY 2012 ACL (i.e., vessels would receive a lower overall allocation than specified in FY 2012 under No Action and the Proposed Alternative).

Similar to the Proposed Alternative, access area trips would be reallocated in the same FY, resulting in no increase in the potential risk of exceeding the limited access fleet’s ACL FY 2013. In addition, the alternative would allow for long-term economic gains by closing the DMV in FY 2012 and protecting scallop recruitment in that area. Closing DMV under this alternative would protect recruitment in the Mid-Atlantic, which is essential for the future success of area rotation to maximize scallop yield over the long term.

Overall, although this alternative would result in less scallop yield in FY 2012, which subsequently leads to fewer short term economic benefits, the long-term gains of closing the DMV could exceed this short-term decline in net benefits.

**Table 16. HC limited access trip length and LPUE by month and overall in FY 2011. Note that HC was only open to fishing from August 2011 to February 2012. . Note that trip length includes compensation trips from previously broken trips.**

<b>Hudson Canyon Scallop Access Area</b>				
<b>Month</b>	<b>Trip Number</b>	<b>Average Length (days)</b>	<b>Total Landings (lb)</b>	<b>Average LPUE</b>
Aug-11	25	5.6	355,761	2468
Sep-11	117	5.3	1,743,338	2804
Oct-11	59	6.1	910,468	2478
Nov-11	72	6.0	1,102,955	2458
Dec-11	63	6.6	863,052	2017
Jan-12	32	6.6	367,751	1668
Feb-12	16	7.5	241,108	1994
Total	384	6.3	5,584,433	2270

**Table 17. Estimated net revenues and costs per full-time limited access FY 2012 HC trip for 156 vessels that are currently allocated FY 2012 into DMV. Trip cost based on assumed fuel prices.**

<b>Diesel-gas index</b>	<b>2010</b>	<b>2011</b>
Assumed Percent Increase	1	1.28
Trip Costs per DAS (\$)	1,600	2,048

<b>FY 2012 Net Revenues and Costs for HC trips</b>	
Number of trips	156
Average price (\$)	10
Possession limit (lb)	9,000
LPUE-CAI (lb/DAS)*	2,270
Trip duration (days)**	4.0
Total trip costs per vessel	\$8,120
Total revenue per vessel	\$90,000
Net revenue per vessel	\$81,880
Total fleet landings	\$1,404,000
Total fleet revenue	\$14,040,000
Total fleet trip costs	\$1,266,693
Total fleet net revenue	\$12,773,307

\* Based on FY 2011 HC average LPUE

\*\* Assuming entire possession limit is landed in one trip and not multiple trips

**Table 18. Estimated net revenues and costs per full-time limited access FY 2012 HC trip for all 313 full-time vessels. Trip cost based on assumed fuel prices.**

<b>FY 2012 Net Revenues and Costs for HC trips</b>	
Number of trips	313
Average price (\$)	10
Possession limit (lb)	9,000
LPUE-CAI (lb/DAS)*	2,270
Trip duration (days)**	4.0
Total trip costs per vessel	\$8,120
Total revenue per vessel	\$90,000
Net revenue per vessel	\$81,880
Total fleet landings	\$2,817,000
Total fleet revenue	\$28,170,000
Total fleet trip costs	\$2,541,505
Total fleet net revenue	\$25,628,495

\* Based on FY 2011 HC average LPUE

\*\* Assuming entire possession limit is landed in one trip and not multiple trips

## 6.0 CUMMULATIVE EFFECTS ASSESSMENT

A cumulative effects assessment (CEA) is a required part of an EIS or EA according to the Council on Environmental Quality (CEQ) (40 CFR part 1508.7) and NOAA's agency policy and procedures for NEPA, found in NOAA Administrative Order 216-6. The purpose of the CEA is to integrate into the impact analyses, the combined effects of many actions over time that would be missed if each action were evaluated separately. CEQ guidelines recognize that it is not practical to analyze the cumulative effects of an action from every conceivable perspective but rather, the intent is to focus on those effects that are truly meaningful. This section serves to examine the potential direct and indirect effects of the alternatives in this emergency action together with past, present, and reasonably foreseeable future actions that affect the sea scallop environment. It should also be noted that the predictions of potential synergistic effects from multiple actions, past, present and/or future will generally be qualitative in nature.

### Valued Ecosystem Components (VEC)

As noted in Section 4.0 (Description of the Affected Environment), the VECs that exist within the Atlantic sea scallop fishery are identified and the basis for their selection is established. Those VECs were identified as follows:

1. Managed Resource - Atlantic sea scallop;
2. Non-target species (incidental catch and bycatch);
3. Physical Environment and EFH;
4. Protected Resources; and
5. Human Communities (includes economic and social effects on the fishery and fishing communities).

### Temporal Scope of the VECs

While the effects of historical fisheries are considered, the temporal scope of past and present actions for sea scallops, non-target species, habitat, and human communities is primarily focused on actions that have taken place since the Atlantic sea scallop FMP was implemented in 1982, and particularly since 1994 when Amendment 4 to the FMP implemented the general category scallop permit. An assessment using this timeframe demonstrates the changes to resources and the human environment that have resulted through management under the Council process and through U.S. prosecution of the fishery. For endangered and other protected species, the context is largely focused on the 1980s and 1990s, when NMFS began generating stock assessments for marine mammals and turtles that inhabit waters of the U.S. EEZ. In terms of future actions, this analysis examines a one-year period between implementation of this amendment (approximately May 2012 through May 2013), the maximum amount of time an emergency action can be effective under provisions of the MSA.

### Geographic Scope of the VECs

The geographic scope of the analysis of impacts to regulated sea scallops, non-target species and habitat for this action is the total range of these VECs in the Western Atlantic Ocean, as described in the Affected Environment Section 4.0 of Amendment 15. However, the analyses of impacts presented in this action focuses primarily on actions related to the harvest of the managed resources. The result is a more limited geographic area used to define the core geographic scope within which the majority of harvest effort for the managed resources occurs.

For endangered and protected species, the geographic range is the total range of each species (See Section 4.4.1.7 in Amendment 15).

Because the potential exists for far-reaching sociological or economic impacts on U.S. citizens who may not be directly involved in fishing for the managed resources, the overall geographic scope for human communities is defined as all U.S. human communities. Limitations on the availability of information needed to measure sociological and economic impacts at such a broad level necessitate the delineation of core boundaries for the human communities. Therefore, the geographic range for human communities is defined as those primary and secondary ports bordering the range of the scallop fishery (See Section 4.4.1.7 in Amendment 15) from the U.S.-Canada border to, and including, North Carolina.

#### Analysis of Total Cumulative Effects

A cumulative effects assessment ideally makes effect determinations based on the culmination of the following: (1) impacts from past, present and reasonably foreseeable future actions; PLUS (2) the baseline condition for resources and human communities; PLUS (3) impacts from the Proposed Action compared with the No Action Alternative/cumulative effects baseline.

A description of past, present and reasonably foreseeable future actions is summarized immediately below in Table 13 and more thoroughly in Framework 23 to the FMP. The baseline conditions of the resources and human communities are subsequently summarized, although it is important to note that beyond managed fisheries and protected species, quantitative metrics for the baseline conditions are not available. Finally, a brief summary of the incremental impacts from the alternatives contained in this EA is included. The culmination of all these factors is considered when making the cumulative effects assessment.

#### **Past, Present and Reasonably Foreseeable Future Actions**

Table 18 below and to a greater extent the EA prepared for Framework 23 to the FMP (available on the Council's web site at <http://www.nefmc.org/scallops/index.html>), summarize the combined effects of past, present, and reasonably foreseeable future actions that affect the VECs, i.e., actions other than those alternatives under development in this document.

#### Fishery-related Actions

Most of the actions effecting this action and considered in Table 18 come from fishery-related activities (e.g., Federal fishery management actions in the scallop and groundfish fisheries). As expected, these activities have fairly straightforward effects on environmental conditions, and were, are, or will be taken, in large part, to improve those conditions. The reason for this is the statutory basis for Federal fisheries management - the re-authorized Magnuson-Stevens Act. This legislation was enacted to promote long-term positive impacts on the environment in the context of fisheries activities. More specifically, the act stipulates that fisheries management comply with a set of National Standards that collectively serve to optimize the conditions of the human environment. Under this regulatory regime, the cumulative impacts of past, present, and future Federal fishery management actions on the VECs should be expected to result in positive long-term outcomes. Nevertheless, these actions are often associated with offsetting impacts. For example, constraining fishing effort frequently results in negative short-term socio-economic impacts for fishery participants. However, these impacts are usually necessary to bring about long-term sustainability of a given resource and as such, should, in the long-term, promote

positive effects on human communities, especially those that are economically dependent upon the managed resource.

Non-fishing Actions

Non-fishing activities were also considered when determining the combined effects from past, present, and reasonably foreseeable future actions. Activities that have meaningful effects on the VECs include the introduction of chemical pollutants, sewage, changes in salinity, dissolved oxygen, and suspended sediment into the marine environment. There is also increasing evidence that impacts resulting from climate change, such as ocean acidification and increased water temperature, could pose a substantial risk. These activities pose a threat to all of the identified VECs in the long-term. Other human induced non-fishing activities that affect the VECs under consideration in this document are those that tend to be concentrated in nearshore areas.

Examples of these activities include, but are not limited to, agriculture, port maintenance, beach nourishment, coastal development, marine transportation, marine mining, dredging, and the disposal of dredged material. In addition, the introduction of invasive species, such as the tunicate observed growing over large portions of Georges Bank, may lead to negative impacts if it spreads to areas critical for the fishery. Wherever any of these activities co-occur, they are likely to work additively or synergistically to decrease habitat quality and, as such, may indirectly constrain the sustainability of the managed resources, non-target species, and protected resources. Decreased habitat suitability would tend to reduce the tolerance of these VECs to the impacts of fishing effort. Mitigation of this outcome through regulations that would reduce fishing effort could then negatively impact human communities.

<b>Impact Definitions for Tables 19 &amp; 20 below</b>	
<b>Managed Resource (Atlantic scallop), Non-target species, and Protected resources</b>	Positive = actions that increase stock size
	Negative = actions that decrease stock size
<b>Physical environment and EFH</b>	Positive = actions that improve or reduce disturbance of habitat
	Negative = actions that degrade or increase disturbance of habitat
<b>Human communities</b>	Positive = actions that increase revenue and well-being of fishermen and/or associated businesses
	Negative = actions that decrease revenue and well-being of fishermen and/or associated businesses
<b>All VECs</b>	Mixed=both positive and negative

**Table 19. Summary effects of past, present, and reasonably foreseeable future actions on the VECs identified for this emergency action (based on actions listed in, and including, Framework 23 to the FMP).**

VEC	Past Actions	Present Actions	Reasonably Foreseeable Future Actions	Combined Effects of Past, Present, Future Actions
Managed Resource	<b>Positive</b> Combined effects of past actions have decreased effort to sustainable levels	<b>Positive</b> Current regulations continue to manage for sustainable stocks	<b>Positive</b> Future actions are anticipated to continue to maintain sustainable stocks	<b>Positive</b> Stocks are being managed to maintain a rebuilt status
Non-target Species	<b>Positive</b> The combination of past actions that decreased effort and gear/area restrictions have reduced impacts	<b>Positive</b> Current regulations continue to manage for sustainable stocks and maintain gear/area restrictions; thus, controlling effort on direct and incidental catch/bycatch species	<b>Positive</b> Future actions are anticipated to continue management for sustainable stocks	<b>Positive</b> Continued management of directed stocks in combination with gear/area restrictions controls incidental catch/bycatch
Physical Environment and EFH	<b>Mixed</b> Combined effects of effort reductions and better control of non-fishing activities have been positive, but fishing activities and non-fishing activities continue to reduce habitat quality	<b>Mixed</b> Effort reductions and better control of non-fishing activities have been positive, but fishing activities and non-fishing activities continue to reduce habitat quality	<b>Mixed</b> Future regulations will likely control effort and thus habitat impacts, but as stocks improve, effort will likely increase along with additional non-fishing activities	<b>Mixed</b> Continued fisheries management will likely control effort and thus, fishery-related habitat impacts but fishery and non-fishery related activities will continue to reduce habitat quality
Protected Resources	<b>Mixed</b> Combined effects of past fishery actions have reduced effort and implemented a gear modification to reduce turtle takes. However, interactions with turtles remain a concern	<b>Positive</b> Current regulations continue to control effort and maintain gear modifications. Proposed measures would also limit trips to areas at the time turtles are most likely to be present	<b>Mixed</b> Future regulations will likely control effort and maintain gear and area restrictions. However, if the scallop resource increases, effort will likely rise, possibly increasing interactions	<b>Mixed</b> Continued effort controls along with gear and area restrictions will likely stabilize protected species interactions, but over the long-term, interactions may increase if scallop effort rises
Human Communities	<b>Positive</b> Although initial management of the scallop resource had negative impacts, long-term sustainable management has supported profitable industries and communities	<b>Mixed</b> Fishery resources continue to support communities in the long-term, but vessels may forgo some yield as a result of this emergency action	<b>Positive</b> Continued sustainable management of the stock should support profitable industries and communities	<b>Positive</b> Sustainable resources should support viable communities and economies

## **Baseline Conditions for Resources and Human Communities**

For the purposes of a cumulative effects assessment, the baseline conditions for resources and human communities are considered the present condition of the VECs plus the combined effects of the past, present, and reasonably foreseeable future actions. The following table (Table 20) summarizes the added effects of the condition of the VECs (i.e., status/trends from Section 4.4 of Amendment 15) and the sum effect of the past, present, and reasonably foreseeable future actions (from Table 19 above). The resulting CEA baseline for each VEC is exhibited in the last column (shaded). In general, straight-forward quantitative metrics of the baseline conditions are only available for managed resources, non-target species, and protected resources. The conditions of the habitat and human communities VECs are complex and varied. As such, refer to the characterizations given in Section 4.4 of Amendment 15 for more information. As mentioned above, this cumulative effects baseline is then used to assess cumulative effects of the proposed management actions below in Table 20.



**Table 20. Cumulative effects assessment baseline conditions of the VECs.**

VEC		Status/Trends/Stresses	Combined Effects of Past, Present, and Reasonably Foreseeable Future Actions	Combined CEA Baseline Conditions
<b>Managed Resource</b>	<b>Atlantic Sea Scallop</b>	Stock size above biomass target, overfishing not occurring but mortality has been above $F_{target}$ in recent years; landings expected to be between 55-56 million lb in FY 2010.	<b>Positive</b> Stocks are being managed to maintain a rebuilt status	<b>Positive</b> - Sustainable stock size
<b>Non-target Species (principal species listed in Section 4.2)</b>	<b>Monkfish</b>	Not overfished and overfishing is not occurring.	<b>Long-term positive</b> Continued management of directed stocks in combination with gear/area restrictions control incidental catch/bycatch	<b>Positive</b> – Long-term reduced bycatch, improved bycatch accounting, improved habitat quality
	<b>Skates</b>	All managed species (with the exception of thorny skate) are not overfished and overfishing is not occurring. Thorny skate is not overfished but overfishing is occurring.		
	<b>Windowpane Flounder</b>	Northern windowpane is overfished and overfishing is occurring. Southern windowpane is not overfished and overfishing is not occurring.		
	<b>Yellowtail Flounder</b>	All stocks (GB, SNE/MA, and Cape Cod/GOM) are overfished, while overfishing is only occurring in the SNE/MA, and Cape Cod/GOM stocks.		
<b>Physical Environment and EFH</b>		Fishing impacts are complex and variable and typically adverse; Non-fishing activities have historically negative but site-specific effects on habitat quality	<b>Mixed</b> Future regulations will likely control effort and thus, habitat impacts but as stocks improve, effort will likely increase along with additional non-fishing activities	<b>Mixed</b> - Reduced habitat disturbance by fishing gear associated with effort reductions, but non-fishing actions may increase over time
<b>Protected Resources</b>	Loggerhead Sea Turtle	Threatened	<b>Mixed</b> Continued effort controls along with gear and area restrictions will likely stabilize protected species interactions, but over the long-term, interactions may increase if scallop effort rises	<b>Mixed</b> – Although takes are likely to continue to be a problem, reduced gear encounters through effort reductions, gear and area restrictions, and Sea Turtle Strategy should reduce interactions between the scallop fishery and turtles
	Leatherback Sea Turtle	Endangered		
	Kemp’s Ridley Sea Turtle	Endangered		
	Green Sea Turtle	Endangered		
	Atlantic Sturgeon	Endangered/Threatened	<b>Mixed</b> Continued effort controls along with gear and area restrictions will likely stabilize Atlantic sturgeon interactions.	<b>Mixed</b> Takes are not likely to be a problem. Atlantic sturgeon is not known to be caught in scallop dredges and interactions with trawl gear are rare.
<b>Human Communities</b>		Complex and variable. Generally, economic trends have been positive in recent years.	<b>Positive</b> Sustainable resources should support viable communities and economies	<b>Long-term positive</b> Sustainable resources should support viable communities and economies

## **Summary Effects of the Proposed Action**

As previously analyzed in Section 5.0, a summary of the direct and indirect impacts on each of the VECs expected is presented below. For the scallop resource, the impacts of closing DMV for FY 2012 and reallocating trips to CAI are expected to be slightly positive relative to the No Action Alternative. The Proposed Action would protect recruitment in the Mid-Atlantic, which is essential for the future success of area rotation to maximize scallop yield over the long term. The Proposed Action would have negligible to low negative impacts on non-target species compared with the No Action Alternative. While there is a higher biomass of yellowtail flounder in CAI, there will be less area swept. Impacts on the physical environment and EFH are expected to be positive because there will be less bottom area swept. Impacts on protected resources are expected to be positive compared with the No Action Alternative. This expectation is based on the lower area swept and the redistribution of effort into an area of with lower sea turtle densities. Finally, the Proposed Action would reduce fishing costs and increase net vessel and fleet revenues in the short terms and the long term. Therefore, the Proposed Action would have positive impacts on human communities.

None of the direct and indirect effects of the Proposed Action Alternative are expected to be significant.

## **Cumulative Effects Assessment**

To determine the magnitude and extent of cumulative impacts of the proposed action, the incremental impacts of the direct and indirect impacts discussed herein should be considered, on a VEC-by-VEC basis, in addition to the effects of all actions (i.e., those effects identified and discussed relative to the past, present, and reasonably foreseeable future actions of both fishing and non-fishing actions).

### Managed Resource

In terms of past, present, and reasonably foreseeable future actions, such as FW 21, and Amendments 10 and 11, there have been positive impacts on the scallop resource, and this trend is expected to continue with future management actions. The Proposed Action would continue to support the goals of the FMP and is expected to have positive impacts on this resource relative to the No Action Alternative/baseline by maintaining sustainable stocks. Therefore, the proposed action, when combined with other past, present and reasonably foreseeable actions described in this assessment, would not result in significant cumulative impacts to the managed resource.

### Non-Target Species

Because this action would continue to support the goals of the FMP, and is not expected to threaten the mortality objectives of the non-target species, these species should continue rebuilding and strive to maintain sustainable stocks. In terms of past, present, and reasonably foreseeable future actions, such as the Council's Standardized Bycatch Reporting Methodology and ACLs, there have been positive impacts on non-target species. Further, the primary species taken as incidental catch in the scallop fishery are all being managed sustainably under the Magnuson-Stevens Act, and this is expected to continue into the future. The Proposed Action is expected to have negligible to low negative impacts on this resource relative to the No

Action/baseline. Therefore, the proposed action, when combined with other past, present and reasonably foreseeable actions described in this assessment, would not result in significant cumulative impacts to the non-target species..

### Physical Environment and EFH

In terms of past, present, and reasonably foreseeable future actions, there have been positive and negative impacts on the physical environment and EFH. This is due to effort reductions and better control of non-fishing activities being positive; however, fishing activities and non-fishing activities continue to reduce habitat quality. The Proposed Action is expected to have negligible impacts on this resource relative to the No Action Alternative/baseline. Therefore, the proposed action, when combined with other past, present and reasonably foreseeable actions described in this assessment, would not result in significant cumulative impacts to the physical environment and EFH.

### Protected Resources

In terms of past, present, and reasonably foreseeable future actions, there have been positive and negative impacts on protected resources. This is due to effort controls and gear modifications being positive; however, fishing gear interactions with protected species remain a concern. The Proposed Action is expected to have positive impacts relative to the No Action Alternative/baseline by continuing to reduce fisheries interactions with protected resources. Therefore, the proposed action, when combined with other past, present and reasonably foreseeable actions described in this assessment, would not result in significant cumulative impacts to protected resources.

### Human Communities

In terms of past, present, and reasonably foreseeable future actions, there have been positive impacts on human communities over the long-term, which is evident by fisheries management being able to support profitable industries and communities. The Proposed Action is expected to continue this trend and have positive short-term and long-term impacts on this VEC relative to the No Action Alternative/baseline. Therefore, the proposed action, when combined with other past, present and reasonably foreseeable actions described in this assessment, would not result in significant cumulative impacts to human communities.

## **7.0 COMPLIANCE WITH APPLICABLE LAWS (INCLUDING FONSI STATEMENT)**

This section describes NMFS' compliance with applicable laws and executive orders in regards to this emergency action.

### **7.1 Magnuson-Stevens Fishery Conservation and Management Act (MSA)**

#### **National Standards**

Section 301 of the Magnuson-Stevens Fishery Conservation and Management Act requires that fishery management plans (FMPs) contain conservation and management measures that are consistent with the ten National Standards:

*(1) Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.*

This emergency action would ensure that localized overfishing does not occur in the DMV due to 2011 survey results indicating lower-than-anticipated biomass in the area and protects scallop recruitment in the Mid-Atlantic. This action, by reallocating trips into CAI in FY 2012, also achieves optimum yield by supporting maximum catch levels in access areas that have sufficient biomass to support those trips. By taking action in FY 2012, and not delaying addressing this issue in FY 2013 through the development of Framework 24, this action increase the likelihood that scallop harvests stay below the ACLs for the fishery. This action likely achieves optimum yield by allocating maximum scallop effort in areas with highest scallop concentrations while also reducing impacts on EFH and bycatch. In addition, this action ensures that the rotational area management program for 2012 and beyond is not undermined by forcing effort into an area with low scallop biomass but evidence of scallop recruitment, thereby jeopardizing the cornerstone of scallop fishery management.

*(2) Conservation and management measures shall be based upon the best scientific information available.*

This document uses information of known quality from sources acceptable to the relevant scientific and technical communities. Several sources of data were used in the development of this document. These data sources include, but are not limited to: 2011 survey data, permit data, landings data from the dealer weigh-out purchase reports, and fishing effort information through VMS declarations and reports. Although there are some limitations to the data used in the analysis, these data are considered to be the best available.

*(3) To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.*

Under the Atlantic Sea Scallop FMP, the target fishing mortality rate and stock biomass are applied to the scallop resource from NC to the US/Canada boundary. This encompasses the entire range of scallop stocks under Federal jurisdiction.

*(4) Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.*

The management measure in this action do not discriminate between residents of different states, as it would close an access area to all scallop vessels, and reallocate those trips for vessels that do not already have alternative options (e.g., full-time limited access scallop vessels) to more productive area. This action minimizes potential inequity across the limited access scallop fleet.

*(5) Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.*

This emergency action should promote efficiency in the utilization of fishery resources by closing an area that has unexpectedly low biomass levels and evidence of recruitment that was not anticipated under Framework 22, which set the FY 2011 and FY 2012 specifications. In general, area rotation intends to maximize yield and reduce fishing impacts by allocating effort in areas with higher concentrations of scallops. This action supports the success of the scallop access area rotation program.

*(6) Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.*

This emergency action takes into account variations among and contingencies in fisheries, fishery resources, and catches. This action enhances the ability of the FMP to adapt to changing resource conditions. This action was made at the request of some industry participants and the Council in order to protect scallop resources in the DMV for future years so that the industry can maintain consistent landings from year to year. Variations in annual catch and allocations are still to be expected under the Scallop FMP's area rotation and this action ensures that these variations are not will be beyond the scope of management uncertainty, a system that is designed to optimize yield from variable recruitment patterns by area and year.

*(7) Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.*

NMFS considered the costs and benefits associated with the Proposed Action when developing this action. This emergency action does not introduce any new measures that duplicate measures already in place, but rather supports the area rotation program to achieve the annual mortality targets and prevent the stock from becoming overfished. The increase in the average size of scallops landed in both open areas and access areas continues to be a major factor that minimizes harvesting costs. By closing the DMV and enabling vessels to take trips in other, more productive, access areas, this action minimized costs to the scallop fleet.

*(8) Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2), in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.*

This emergency action is not expected to jeopardize the sustained participation of fishing communities that have depended on the scallop resource and is at the request of some industry participants. The closure of the DMV is expected to continue to ensure a healthy resource that will be able to support historical levels of participation by fishing communities. Although this action would not enable vessels to fish in DMV in FY 2012, scallop vessels will have access to other more productive areas, consistent with the scallop allocations, and associated landings and revenues, specified under Framework 22 for FY 2012, allowing for maintaining higher revenues in the long-term than could be possible under No Action.

*(9) Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.*

By closing the DMV and reallocating trips to CAI, this emergency action would minimize interactions of sea turtles in the Mid-Atlantic. CAI is an area with higher scallop biomass (i.e., resulting in shorter fishing trips and area swept) than other areas considered for reallocation and has lower bycatch of yellowtail (a species vulnerable to capture by scallop dredges) than other areas in Georges Bank. Thus, this action would minimize as much as possible the likelihood that the yellowtail sub-ACL in this stock area allocated to the scallop fishery would be exceeded in FY 2012, a value which was based on Framework 22 fishing effort projections.

*(10) Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.*

This emergency action would close an access area that has lower-than-anticipated biomass in DMV, resulting in longer fishing trips in comparison to other access areas. By closing the DMV, this action promotes the safety of human life at sea because shorter trips in CAI are expected to increase safety relative to the long trips that would be expected if the DMV remains open.

#### **Other Required Provisions of the M-S Act**

Section 303 of the Magnuson-Stevens Fishery Conservation and Management Act contains 14 additional required provisions for FMPs, which are discussed below. Any FMP prepared by any Council, or by the Secretary, with respect to any fishery, shall:

*(1) contain the conservation and management measures, applicable to foreign fishing and fishing by vessels of the United States, which are-- (A) necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery; (B) described in this subsection or subsection (b), or both; and (C) consistent with the National Standards, the other provisions of this Act, regulations implementing recommendations by international organizations in which the United States participates (including but not limited to closed areas, quotas, and size limits), and any other applicable law;*

Since the domestic scallop fishery is capable of catching and processing the allowable biological catch (ABC), there is no total allowable level of foreign fishing (TALFF) and foreign fishing on sea scallops is not permissible at this time.

*(2) contain a description of the fishery, including, but not limited to, the number of vessels involved, the type and quantity of fishing gear used, the species of fish involved and their location, the cost likely to be incurred in management, actual and potential revenues from the fishery, any recreational interest in the fishery, and the nature and extent of foreign fishing and Indian treaty fishing rights, if any;*

The fishery and fishery participants are described in detail in Section 4.4 of Amendment 15 to the Scallop FMP. Section 4.4 of Framework 23 describes the scallop permits by category as well as the active scallop vessels by permit type that could be affected by this action. Potential costs and revenues for Framework 22 FY 2011 specifications are outlined in Section 6.11 of that

document. Similar information pertaining specifically to this emergency action is outlined in Section 4.5 of this document.

*(3) assess and specify the present and probable future condition of, and the maximum sustainable yield and optimum yield from, the fishery, and include a summary of the information utilized in making such specification;*

The present and probable future condition of the resource and estimates of Maximum Sustainable Yield (MSY) and Optimum Yield (OY) are given in Section 8.2.2.2 of Amendment 10 to the Scallop FMP. The SSC reviewed the most recent work on assessing this resource during Framework 22 development and determined that acceptable biological catch be set at 33,243 mt in 2012 (73.3 million pounds), including an approximate 4,100 mt (9 million pounds) for non-yield fishing mortality (discards and incidental mortality). Therefore, the overall ABC for the fishery, excluding discards and incidental mortality is 28,968 mt in 2012 (63.9 million pounds). 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 (Section 5.6 of Framework 22).

This level was recommended by the Science and Statistical Committee (SSC) and various sources of scientific uncertainty were considered when setting this value. ABC calculations were based on the updated hybrid overfishing alternative specified in Amendment 15. Under this OFD, the overfishing threshold remains as status quo (spatially averaged  $F = 0.38$ ). The fishing mortality target in the open areas is set at no higher than the overfishing threshold in the open areas (currently  $F = 0.38$ ). In access areas, it is set no higher than that given by the time-averaging principle (so that  $F$  may be higher than the overfishing threshold in access areas that had been closed). The spatially combined target fishing mortality must be no higher than that which gives a 25% probability of exceeding the ABC fishing mortality. Target fishing mortalities can be set below these limits but not above them.

Current domestic landings and processing capabilities are around 50 million lbs. Total landings have been above that level in some years since 2004, and are expected to be close to 55 million pounds for 2010 and slightly greater for 2011. Landings for FY 2010, as specified by Framework 22, are expected to be in a similar range, i.e., 57 million pounds. This emergency action would support the FY 2012 landings specified by Framework 22.

*(4) assess and specify-- (A) the capacity and the extent to which fishing vessels of the United States, on an annual basis, will harvest the optimum yield specified under paragraph (3); (B) the portion of such optimum yield which, on an annual basis, will not be harvested by fishing vessels of the United States and can be made available for foreign fishing; and (C) the capacity and extent to which United States fish processors, on an annual basis, will process that portion of such optimum yield that will be harvested by fishing vessels of the United States;*

The US fishery is expected to harvest 100% of OY and domestic processors are expected to be able to process 100% of OY.

*(5) specify the pertinent data which shall be submitted to the Secretary with respect to commercial, recreational, charter fishing, and fish processing in the fishery, including, but not limited to, information regarding the type and quantity of fishing gear used, catch by species in numbers of fish or weight thereof, areas in which fishing was engaged in, time of fishing, number*

*of hauls, economic information necessary to meet the requirement and the estimated processing capacity of, and the actual processing capacity utilized by, United States fish processors;*

The FMP and existing regulations specify the type of reports and information that scallop vessel owners and scallop dealers must submit to NMFS. These data include, but are not limited to, the weight of target species and incidental catch which is landed, characteristics about the vessel and gear in use, the number of crew aboard the vessel, when and where the vessel fished, and other pertinent information about a scallop fishing trip. Dealers must report the weight of species landed by the vessel, the date of landing, and the ex-vessel price for each species and/or size grade. Important information about vessel characteristics, ownership, and location of operation is also required on scallop permit applications. Dealers are also surveyed for information about their processing capabilities.

All limited access scallop vessels and LAGC vessels are required to operate vessel monitoring system (VMS) equipment to record the location of the vessel for monitoring compliance with scallop regulations. An at-sea observer is also placed on scallop vessels at random to record more detailed information about the catch, including size frequency data, the quantity of discards by species, detailed gear data, and interactions with protected species.

There is no distinct recreational or charter sector of the scallop fishery since a limited access permit with associated reporting requirements is required to harvest any amount of scallops in Federal waters.

*(6) consider and provide for temporary adjustments, after consultation with the Coast Guard and persons utilizing the fishery, regarding access to the fishery for vessels otherwise prevented from harvesting because of weather or other ocean conditions affecting the safe conduct of the fishery; except that the adjustment shall not adversely affect conservation efforts in other fisheries or discriminate among participants in the affected fishery;*

This emergency action does not alter any adjustments made in the Scallop FMP that address opportunities for vessels that would otherwise be prevented from harvesting because of weather or other ocean conditions affecting the safe conduct of the fisheries. No consultation with the Coast Guard is required relative to this issue.

*(7) describe and identify essential fish habitat for the fishery based on the guidelines established by the Secretary under section 305(b)(1)(A), minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat;*

Essential fish habitat was defined in earlier scallop actions. This action does not further address or modify those EFH definitions. There are no additional impacts to the physical environment or EFH expected from this emergency action.

*(8) in the case of a fishery management plan that, after January 1, 1991, is submitted to the Secretary for review under section 304(a) (including any plan for which an amendment is submitted to the Secretary for such review) or is prepared by the Secretary, assess and specify the nature and extent of scientific data which is needed for effective implementation of the plan;*



Data and research needs relative to the Atlantic sea scallop and its associated fisheries are described in Section 5.1.8 of Amendment 10 and Section 4.1 of Amendment 15. Other data already collected include fishery dependent data described in Section 6.2.4 of Amendment 10 and Section 4.4 of Amendment 15, and fishery-independent resource surveys that provide an index of scallop abundance and biomass.

*(9) include a fishery impact statement for the plan or amendment (in the case of a plan or amendment thereto submitted to or prepared by the Secretary after October 1, 1990) which shall assess, specify, and describe the likely effects, if any, of the conservation and management measures on-- (A) participants in the fisheries and fishing communities affected by the plan or amendment; (B) participants in the fisheries conducted in adjacent areas under the authority of another Council, after consultation with such Council and representatives of those participants; and (C) the safety of human life at sea, including weather and to what extent such measures may affect the safety of participants in the fishery;*

The impacts of the scallop management program in general have been analyzed in previous scallop actions (Amendment 10, Amendment 11, Amendment 15, Framework 16, Framework 18, Framework 19, Framework 21, Framework 22, and Framework 23 (proposed)). Any additional impacts from the DMV closure and trip-reallocation proposed in this emergency action on fishery participants are summarized in Section 5.2.5. Safety in the scallop fishery was described in Section 8.1.5.6 of Amendment 10 and nothing proposed in this action will affect safety of human life at sea.

*(10) specify objective and measurable criteria for identifying when the fishery to which the plan applies is overfished (with an analysis of how the criteria were determined and the relationship of the criteria to the reproductive potential of stocks of fish in that fishery) and, in the case of a fishery which the Council or the Secretary has determined is approaching an overfished condition or is overfished, contain conservation and management measures to prevent overfishing or end overfishing and rebuild the fishery;*

Overfishing reference points describing targets and thresholds for biomass and fishing mortality were updated in 2010 and are presented and explained in Sections 4.1.1 and 4.1.3 of Amendment 15. Under this OFD, the overfishing threshold remains as status quo (spatially averaged  $F = 0.38$ ). The FY 2012 specifications set by Framework 22 are designed to meet the fishing mortality target that has a 25% chance of exceeding the OFL. This emergency action would support the Framework 22 specifications designed to stay within various catch limits.

*(11) establish a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, and include conservation and management measures that, to the extent practicable and in the following priority-- (A) minimize bycatch; and (B) minimize the mortality of bycatch which cannot be avoided;*

This emergency action does not include changes to the current bycatch methodology used to assess bycatch occurring in the scallop fishery. The scallop fishery also has an industry funded observer set-aside program that provides additional funding (portion of total scallop catch set-aside) to put observers on scallop vessels. A summary of the extent of observer coverage in this fishery can be found in Section 4.5.3 of Framework 22. Overall, this emergency action is expected to lower bycatch in the scallop fishery by moving fishing effort to a more productive area, which would result in lower area swept for those trips.

*(12) assess the type and amount of fish caught and released alive during recreational fishing under catch and release fishery management programs and the mortality of such fish, and include conservation and management measures that, to the extent practicable, minimize mortality and ensure the extended survival of such fish;*

This emergency action does not address recreational fishing regulations. There are no substantial recreational or charter fishing sections in the scallop fishery. Any recreational scallop fishing is likely conducted by diving, and harvest is by hand, maximizing the survival of released scallops.

*(13) include a description of the commercial, recreational, and charter fishing sectors which participate in the fishery, including its economic impact, and, to the extent practicable, quantify trends in landings of the managed fishery resource by the commercial, recreational, and charter fishing sectors;*

A detailed description of the scallop fishery is included in Section 7.1 of Amendment 10, Section 4.4 in Amendment 11, Section 4.4 of Amendment 15, Section 4.4 of Framework 22, and Section 4.4 of Framework 23. These sections provide information relative to scallop vessels, processors, and dealers.

*(14) to the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate, taking into consideration the economic impact of the harvest restrictions or recovery benefits on the fishery participants in each sector, any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery; and*

This emergency action does not propose a reduction in total catch in the scallop fishery compared to recent years. The DMV closure is expected to have long-term benefits for participating vessels, and the economic impacts on various sectors of the fishery have been considered. Reallocation of full-time vessel trips into a more productive access area in FY 2012 will ensure equitability across the fleet. Section 5.2.5 is an examination of the expected economic impacts of this action. Harvest from the Atlantic sea scallop fishery will continue to be reviewed, established, and analyzed through the biennial framework process. Recreational fishing for sea scallops is rare and does not affect the success of the FMP.

*(15) 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.*

Amendment 15 specified the mechanism for establishing ACLs and AMs to bring the Scallop FMP in compliance with annual catch limits required under the reauthorized Magnuson-Stevens Act. Framework 22 used the ACL process outlined in Amendment 15 and set catch limits for certain sectors of the scallop fishery, as well as effort controls for the rest of the fishery that is not under a direct TAC or quota for FYs 2011- 2013, with default measures for 2013 which will be updated and superseded by Framework 24 (under development). This emergency action would ensure that those catch limits set forth in Framework 22 for FY 2012 are not compromised.

## **7.2 National Environmental Policy Act (NEPA)**

NEPA provides a mechanism for identifying and evaluating the full spectrum of environmental issues associated with Federal actions, and for considering a reasonable range of alternatives to avoid or minimize adverse environmental impacts. This document is designed to meet the requirements of both the MSA and NEPA. The Council on Environmental Quality (CEQ) has issued regulations specifying the requirements for NEPA documents (40 CFR 1500 – 1508). All of those requirements are addressed in this document, as referenced below.

## **Environmental Assessment**

The required elements of an Environmental Assessment (EA) are specified in 40 CFR 1508.9(b). They are included in this document as follows:

- The need for this action is described in Section 2.0;
- The alternatives that were considered are described in Section 3.0 (alternatives including the proposed action and No Action);
- The environmental impacts of the proposed action are described in Section 5.0;
- A determination of significance is in Section 7.2; and,
- The agencies and persons consulted on this action are listed in Section 8.0.

## **Finding of No Significant Impact**

National Oceanic and Atmospheric Administration (NOAA) Administrative Order 216-6 (NAO 216-6) (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. On July 22, 2005, NOAA published a Policy Directive with guidelines for the preparation of a Finding of No Significant Impact (FONSI). In addition, the Council on Environmental Quality (CEQ) regulations at 40 CFR 1508.27 state that the significance of an action should be analyzed both in terms of “context” and “intensity.” Each criterion listed below is relevant in making a finding of significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria, the recent Policy Directive from NOAA, and CEQ’s context and intensity criteria. These include:

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

**Response:** No, the proposed action is not reasonably expected to jeopardize the sustainability of the sea scallop resource. The closure of the DMV for up to one year and reallocation or trips to CAI would not cause increases in fishing mortality above the overfishing threshold that would jeopardize the sustainability of the scallop resource. This action is designed to have positive impacts to the scallop resource by protecting recruitment in the Mid-Atlantic. A general description of the target species is summarized in Section 4.1. Section 5.2.1 summarizes the overall impacts of this action on the scallop resource.

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

**Response:** No, the proposed action is not reasonably expected to jeopardize the sustainability of any non-target species. A general description of the non-target species is summarized in Section 4.2, and a complete bycatch analysis of the scallop fishery was completed in Amendment 15. Section 5.2.2 summarizes the overall impacts of this action on non-target species. In general,

this action does not increase overall fishing effort above levels assessed in Amendment 15; thus, there is no indication that impacts on non-target species will be different.

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

**Response:** No, the proposed action is not reasonably expected to cause substantial damage to the ocean and coastal habitats and/or EFH. A general description of the physical environment and EFH is summarized in Section 4.3. Section 5.2.3 summarizes the overall impacts of this action on habitat.

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

**Response:** No, the proposed action is not reasonably expected to have substantial adverse impacts on public health or safety. This action does not modify the primary measures used to manage the fishery and is not expected to change fishing behavior in any substantial way to adversely impact safety.

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

**Response:** No, the proposed action is not reasonably expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species. Section 4.4 describes the endangered or threatened species that are found in the affected area. Section 5.2.4 summarizes the impacts of the proposed action on endangered and threatened species.

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

**Response:** The proposed action is not expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area. Section 4.3 describes the physical environment of the affected area including the benthic environment and biological parameters of the scallop resource.

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

**Response:** No, this action does not propose any significant social or economic impacts interrelated with significant natural or physical environmental effects. The proposed action closes DMV to fishing in FY 2012 and reallocates trip to CAI. Since this was not anticipated to have significant social or economic impacts interrelated with significant natural or physical environmental effects in Framework 22, none are expected to result from the proposed action.

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

**Response:** No, the effects on the quality of the human environment are not likely to be highly controversial and the proposed action is based on the best available science. Section 5.2 assesses the expected impacts of the proposed action on the human environment, and Section 6.0 describes the potential cumulative effects of this action on the human environment.

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

**Response:** No, unique areas, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas are not located within the affected area; therefore, there are no impacts on these components of the environment from the proposed action.

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

**Response:** No, the effects on the human environment are not likely to be highly uncertain or involve unique or unknown risks. This action primarily proposes closing DMV to fishing in FY 2012 and reallocating trips to CAI as part of the existing rotational area management program. The risks and impacts of area rotation on the human environment have been discussed and analyzed in previous actions. Therefore, the likely effects on the human environment are well understood.

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

**Response:** No, the proposed action is not related to other actions with individually insignificant but cumulatively significant impacts. Section 6.0 describes fishing and non-fishing past, present and reasonably foreseeable future actions that occurred or are expected to occur in the affected area. In summary, the sea scallop resource, non-target species, EFH, protected species, and the human communities have been impacted by past and present actions in the area and are likely to continue to be impacted by these actions in the future, but no significant impacts are expected as a result of the proposed action.

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

**Response:** No districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places are located in the affected area; therefore, there are no impacts on these resources from the proposed action.

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

**Response:** No, the proposed action is not reasonably expected to result in the introduction or spread of a nonindigenous species. The only nonindigenous species known to occur in any significant amount within the fishery areas is the colonial sea squirt (*Didemnum sp.*). The tunicate occurs on pebble gravel habitat, and does not occur on moving sand. NMFS and the WHOI HabCam have surveyed the area and studies are underway to monitor *Didemnum*'s growth and effect on scallops and their habitat. At this time, there is no evidence that fishing spreads this species more than it would spread naturally.

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

**Response:** No, the proposed action is not likely to establish a precedent for future action with significant effects, and it does not represent a decision in principle about future consideration. This action modifies an existing rotational area management program that is designed to be

reviewed and adjusted every two years. Area rotation was established under Amendment 10, which was an EIS that assessed the long-term impacts of area rotation.

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

**Response:** No, the proposed action is not reasonably expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment. This action does not propose any changes that would provide incentive for environmental laws to be broken.

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

**Response:** No, the proposed action is not reasonably expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species. Both target and non-target species have been identified and assessed in this document (Sections 4.1, 4.2, 5.2.1, and 5.2.2). In general, this action will modify the rotational area management program, which will have positive impacts on both target and non-target species.

**FONSI DETERMINATION**

In view of the information presented in this document and the analysis contained in the supporting Environmental Assessment prepared for the Delmarva Access Area Closure, and in the FEIS for Amendment 15 and the EA for Framework 22 to the Sea Scallop Fishery Management Plan, it is hereby determined that this action will not significantly impact the quality of the human environment as described above and in the supporting Environmental Assessment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.

\_\_\_\_\_  
Regional Administrator, Northeast Region, NMFS

\_\_\_\_\_  
Date

**7.3 Endangered Species Act (ESA)**

Section 4.4 of this action contains a description of threatened and endangered species potentially affected by the Scallop Fishery and sections 5.1.4, 5.2.4, and 5.3.4, provide summaries of the impacts of the No Action, Proposed Action, and Alternative 3, respectively. A final determination of consistency with the ESA will be made by the agency when the action is implemented.

**7.4 Marine Mammal Protection Act (MMPA)**

Section 4.4 of this action contains a description of marine mammals potentially affected by the Scallop Fishery and 5.1.4, 5.2.4, and 5.3.4, provide summaries of the impacts of the No Action, Proposed Action, and Alternative 3, respectively. It is noted that according to the 2011 List of Fisheries, there have been no documented marine mammal species interactions with either the sea scallop dredge fishery or the Atlantic shellfish bottom trawl fishery; therefore, the scallop fishery is considered a Category III fishery under the MMPA (i.e., a remote likelihood or no known incidental mortality and serious injuries of marine mammals). A final determination of consistency with the MMPA will be made by the agency when the action is implemented.

## **7.5 Administrative Procedure Act (APA)**

The need to implement these measures in an expedited manner in order to ensure equity across the scallop fleet and avoid jeopardizing the overall and long-term success of the Scallop FMP constitutes good cause under authority contained in 5 U.S.C. 553(b)(B) of the Administrative Procedure Act that it is impracticable and contrary to the public interest to provide for prior notice and opportunity for the public to comment. The reasons justifying this action on an emergency basis make solicitation of public comment contrary to the public interest. Specifically, by closing the DMV for the remainder of FY 2012, this action avoids jeopardizing the success of the access area program in future years by protecting scallop recruitment in the Mid-Atlantic and avoiding localized overfishing. In addition, by reallocating unused full-time limited access DMV trips (up to 156 trips) into CAI in FY 2012, this action avoids potential inequity in FY 2012 allocations and ensures that the limited access scallop fleet would not risk exceeding its sub-ACL in FY 2013, if vessels allocated DMV trips were compensated in FY 2013, rather than FY 2012. This also avoids the potential for the limited access fleet to be subjected to potential DAS deductions in FY 2014 to account for any overage of their FY 2013 ACL. In addition, this action would minimize the likelihood of sea turtle interactions in the Mid-Atlantic, which are known to begin in June, due to longer access area trips due to low biomass in DMV. Due to the uncertainty of whether vessels will be compensated for their unused DMV trips, it is possible that vessels will fish in the DMV when the meat weights would be highest (i.e., during the first few months of the fishing year), which would have negative implications on the recruitment in the area. Thus, this action did not allow for prior public comment because the review process and determination could not have been completed any earlier, due to the inherent time constraints associated with the process and the fact that the DMV opened on March 1, 2012 with FY 2012 allocations. It is also important to note that this action was undertaken at the request of the Council and of the Fisheries Survival Fund (FSF), an organization that represents a large portion of the scallop industry, and that is an active participant in the development of scallop fishery management measures. FSF and the Council urged that NMFS implement this action as soon as possible.

## **7.6 Paperwork Reduction Act (PRA)**

The purpose of the Paperwork Reduction Act is to minimize paperwork burden for individuals, small businesses, nonprofit institutions, and other persons resulting from the collection of information by or for the Federal Government. It also ensures that the Government is not overly burdening the public with requests for information. This action does not have any new collection of information requirements subject to the PRA.

## **7.7 Information Quality Act (IQA)**

### ***Utility of Information Product***

The proposed document includes: A description of the management issues, a description of the alternatives considered, and the reasons for selecting the preferred management measures, to the extent that this has been done. These actions propose modifications to the existing FMP. These proposed modifications implement the FMP's conservation and management goals consistent with the Magnuson-Stevens Fishery Conservation and Management Act (MSA) as well as all other existing applicable laws.

The Federal Register notice that announces the emergency rule and the implementing regulations will be made available in printed publication and on the website of the Northeast Regional Office. The notice provides metric conversions for all measurements.

### ***Integrity of Information Product***

The information product meets the standards for integrity under the following types of documents:

Other/Discussion (e.g., Confidentiality of Statistics of the Magnuson-Stevens Fishery Conservation and Management Act; NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics; 50 CFR 229.11, Confidentiality of information collected under the Marine Mammal Protection Act.)

### ***Objectivity of Information Product***

The category of information product that applies for this product is “Natural Resource Plans.”

NMFS must comply with the requirements of the Magnuson-Stevens Act, the National Environmental Policy Act, the Administrative Procedure Act, the Paperwork Reduction Act, the Coastal Zone Management Act, the Endangered Species Act, the Marine Mammal Protection Act, the Information Quality Act, and Executive Order 13132 (Federalism).

This action is being developed to comply with all applicable National Standards, including National Standard 2. National Standard 2 states that the FMP's conservation and management measures shall be based upon the best scientific information available. Despite current data limitations, the conservation and management measures proposed to be implemented under this emergency action are based upon the best scientific information available.

The policy choices (i.e., management measures) proposed to be implemented by this document are supported by the available information. The management measures contained in the document are designed to meet the conservation goals and objectives of the FMP.

The supporting materials and analyses used to develop the measures in the document are contained in the document and to some degree in previous amendments, frameworks, and/or FMPs as specified in this document.

The review process for this document involves the Northeast Regional Office and NMFS headquarters. The document was prepared by staff of the Northeast Regional Office with expertise in scallop resource issues, habitat issues, economics, and social sciences. Review by staff at the Regional Office and NMFS headquarters is conducted by those with expertise in fisheries management and policy, habitat conservation, protected species, and compliance with the applicable law. Final approval of the document and clearance of the rule is conducted by staff at NOAA Fisheries Headquarters, the Department of Commerce, and the U.S. Office of Management and Budget.

## **7.8 Coastal Zone Management Act (CZMA)**

Section 307 of the Coastal Zone Management Act (CZMA) is known as the Federal consistency provision. Federal Consistency review requires that “federal actions, occurring inside or outside of a state's coastal zone, that have a reasonable potential to affect the coastal resources or uses of



that state's coastal zone, to be consistent with that state's enforceable coastal policies, to the maximum extent practicable.” The Council previously made determinations that the FMP was consistent with each state’s coastal zone management plan and policies, and each coastal state concurred in these consistency determinations (in Scallop FMP). Since the proposed action does not propose any substantive changes from the FMP, NMFS has determined that this action is consistent with the coastal zone management plan and policies of the coastal states in this region. NMFS will notify CZM state agencies directly.

## **7.9 Executive Order 12866 (Regulatory Impact Review)**

### **7.9.1 Introduction**

The Regulatory Impact Review (RIR) provides an assessment of the costs and benefits of proposed actions and other alternatives in accordance with the guidelines established by Executive Order 12866. The regulatory philosophy of Executive Order 12866 stresses that in deciding whether and how to regulate, agencies should assess all costs and benefits of all regulatory alternatives and choose those approaches that maximize the net benefits to the society.

The RIR also serves as a basis for determining whether any proposed regulations are a “significant regulatory action” under the criteria provided in Executive Order 12866 and whether the proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Act of 2180 (RFA).

This RIR summarizes the effects of the DMV closure, and the subsequent reallocation of 156 limited access full-time scallop vessel access area trips to CAI, considered in this emergency action. The emergency action document contains all the elements of the RIR, and the relevant sections are identified by reference to the document.

The purpose of and the need for action are described in Section 2.0. Descriptions of the considered alternatives are provided in Section 3.0.

### **7.9.2 Summary of Regulatory Impacts**

The economic impacts of the proposed action on scallop fishery are analyzed in Section 5.2.5 of this document.

#### **Summary of the impacts of the proposed action alternative**

The proposed action would not allow access into DMV to protect scallop recruitment in the area. Because recent 2011 survey results show that biomass levels are much lower than expected in this area, the scallop industry is not interested in fishing their scallop trips because the trips will take longer and, as a result, the trips costs would be higher and net revenues would be less, than in other areas. Full-time access area trips are estimated to be worth \$180,000 in gross vessel revenue (e.g., with each trip having a possession limit of 18,000 lb of scallops and assuming a scallop price of \$10/lb). This results in slightly over \$2.8 million in gross fleet revenues for split trips (i.e., when half of the full-time fleet is allocated a trip into an access area, as is the case in DMV). Because average trip costs, as discussed in Sections 5.1.5, 5.2.5, and 5.3.5 are likely around \$2,048/day (assuming a 28-percent increase in fuel prices from 2011 to 2012), longer trips in DMV, as under No Action, will result in higher trips costs and lower net vessel and fleet

revenues that if those trips were allocated to a more productive access area, as under the proposed action (i.e., CAI). In addition, the proposed action would ensure that there is not inequity across the full-time fleet because no vessels would have trips assigned into areas that are much less productive than other access areas, as under No Action.

The other considered alternative was Alternative 3, which would close the DMV and allocate all vessels 3.5 total access area trips (i.e., 3 full trips at 18,000 lb and one 9,000 lb trip into HC), rather than a total of 4 trips each. This alternative would have resulted in a 2.8 million lb reduction of the total scallop catch allocated to full-time vessels in FY 2012 (i.e., 313 trips at 9,000 lb/trip compared to 313 trips at 18,000 lb/trip), which would result in the scallop fishery not being able to potentially gain \$28 million in gross fleet revenues (2.8 million lb x \$10/lb), compared to the other alternatives considered.

Overall, the proposed action, which does not reduce FY 2012 allocations and moves fishing effort to a more productive area, is expected to result in higher gross and net revenues than No Action and Alternative 3. Because this action will protect scallop recruitment in the Mid-Atlantic, the scallop industry is expected to benefit from the FY 2012 DMV closure over the long term.

Because LAGC vessels and part-time vessels have more flexibility in their individual allocations (e.g., part-time vessels are allocated two access area trips that can be taken in any open access area and LAGC IFQ vessels are allocated fleet-wide access area trips but all landings are still applied to their IFQ, regardless of whether they fish in access or open areas), a closure of the DMV is not expected to impact these vessels. In FY 2011, it took vessels much longer to land their full possession limits (14,000 lb/trip for part-time vessels) in DMV so many decided to fish their non-area specific access area trips elsewhere. LAGC IFQ vessels only fished 11.6 percent of their fleet-wide FY 2011 DMV trip allocation (See Table XX). Instead, these vessels chose to harvest their IFQ allocations in other, more productive areas.

### **7.9.3 Enforcement Costs**

The enforcement costs and benefits of the proposed action are within the range of impacts addressed in Section 8.9 of Amendment 10 FSEIS and Section 5.4.22 and Section 5.6.3 of Amendment 11. The proposed action is very similar to the existing measures in terms of the enforcement requirements, since it would entail enforcing a specific scallop access area closure. The costs of implementing and enforcing the proposed action are not expected to compromise the effectiveness of implementation and enforcement of this action. Furthermore, there are several mechanisms and systems, such as VMS monitoring and data processing, already in place that will aid in monitoring and enforcement of this action. Therefore, the overall enforcement costs are not expected to change significantly from the levels necessary to enforce measures under the no action regulations.

### **7.9.4 Determination of Significant Action**

This action is not significant under Executive Order 12866 because it would not do any of the following: (1) Have an economic effect of \$100 million per year on a continuing basis or adversely affect in a material way the economy, a sector of the economy, productivity, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2)

represent novel policy issues that may generate an increased level of controversy; (3) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; or (4) materially alter the budgetary impact of entitlements, grants, user fees or loan programs or the rights and obligations of recipients thereof.

As outlined in the summary of impacts above, the proposed action would not allow access into DMV to protect scallop recruitment in the area, and would reallocate full-time vessel access area trips originally assigned to DMV in FY 2012 to a more productive access area, CAI. Under the proposed action, the total scallop catch specified for FY 2012 will remain the same (i.e., no reduction in catch compared to what was allocated through Framework 22). Therefore, the total economic impact is expected to be positive over the short term, resulting in a gain in gross and net revenue for full-time vessels with allocated FY 2012 DMV trips and for the scallop fleet overall. Because this action will protect scallop recruitment in the Mid-Atlantic, the scallop industry is expected to benefit from this closure over the long term. Thus, the proposed action will not have either a short-term or a long-term negative annual impact on the economy by \$100 million or more compared to No Action.

Additionally, this action would not raise novel legal and policy issues, other than those that were already addressed and analyzed in Amendment 10, as well as addressed in Amendment 15 and Framework 22. The proposed action will not adversely affect in a material way the economy, productivity, competition, public health or safety, jobs or state, local, or tribal governments or communities in the long run. The proposed action also does not interfere with an action planned by another agency, since no other agency regulates the level of scallop harvest, nor does it materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients.

#### **7.10 Executive Order 13132 (Federalism)**

The E.O. on federalism establishes nine fundamental federalism principles for Federal agencies to follow when developing and implementing actions with federalism implications. Previous scallop actions have already described how the management plan is in compliance with this E.O. Furthermore, this action does not contain policies with Federalism implications; thus, preparation of an assessment under E.O. 13132 is not warranted.

## **8.0 PERSONS & AGENCIES CONSULTED/ HOW TO OBTAIN A COPY OF THIS DOCUMENT**

This Environmental Assessment was prepared and evaluated by the National Marine Fisheries Service.

The following persons aided in the preparation of this document: Jennifer Anderson, Peter Christopher, Emily Gilbert, Brian Hooper, Dvora Hart, Deirdre Boelke (NEFMC), and Demet Hasker (NEFMC). No other agencies or persons were consulted in preparation of this EA.

Requests for additional copies and any questions concerning this document may be addressed to:  
Emily Gilbert

NMFS/Northeast Regional Office  
55 Great Republic Drive  
Gloucester, MA 01930  
(978) 281-9244

## **9.0 REFERENCES**

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	Permit	Vessel or CPH Name	CAI	CA2	NLS	DMV	HC	Sum	Owner	CAT	Address 1	Address 2	City	State	Zip	Telephone
178	410185	JULIE G	1	1	0	0	2	4	W W FISHERIES LIMITED	2	114 MACARTHUR DRIVE		NEW BEDFORD	MA	02740	(508) 994-4264
179	410187	FORTUNE HUNTER	0	1	0	1	2	4	MISTY SEAS INC	2	PO BOX 518	RUTH DRIVE	AURORA	NC	27806	(252) 322-5695
180	410192	ARAHO	1	1	0	0	2	4	OHARA CORPORATION	2	14 HERVEY TICHON AVENUE		NEW BEDFORD	MA	02740	(207) 594-4444
181	410193	DEFIANT	0	1	1	1	1	4	CAROLINA DREAM INC	2	PO BOX 600		SEAFORD	VA	23696	(757) 898-8512
182	410195	KATHY ROSE	0	1	1	0	2	4	MARGARET N ROSE	2	PO BOX 86	131 WINDMILL POINT DRIVE	VANDEMERE	NC	28587	(252) 745-5338
183	410200	ANDREA JEAN	1	1	1	0	1	4	J & G SCALLOPS INC	2	114 MACARTHUR DRIVE		NEW BEDFORD	MA	02740	(508) 994-4264
184	410202	JANICE LYNELL	0	1	0	1	2	4	TRAWLER YVONNE MICHELLE INC	2	PO BOX 553		NEWPORT NEWS	VA	23607	(757) 245-3022
185	410205	FOREMOST	1	1	0	0	2	4	OHARA CORPORATION	5	14 HERVEY TICHON AVENUE		NEW BEDFORD	MA	02740	(508) 993-5300
186	410210	TROPICO	0	1	1	0	2	4	TROPICO FISHING INC	2	655 PINE HILL ROAD		WESTPORT	MA	02790	(508) 636-5971
187	410211	STARDUST	1	1	1	0	1	4	S J FISHERIES INC	2	113 MACARTHUR DRIVE		NEW BEDFORD	MA	02740	(508) 996-0525
188	410213	CAPT MALC	0	1	1	0	2	4	COMPANION OF WANCHESE INC	2	48 WATER STREET		HAMPTON	VA	23663	(757) 728-0600
189	410214	AMBASSADOR	1	1	0	0	2	4	TONNESSEN FISHERIES INC	2	2 MIDDLE STREET		FAIRHAVEN	MA	02719	(617) 996-0313
190	410215	HUNTRESS	0	1	1	1	1	4	ISAKSEN FISHING CORPORATION	2	2 MIDDLE STREET		FAIRHAVEN	MA	02719	(617) 996-0313
191	410219	YVONNE MICHELLE	0	1	0	1	2	4	TRAWLER YVONNE MICHELLE INC	2	PO BOX 553		NEWPORT NEWS	VA	23607	(757) 245-3022
192	410220	ORION	1	1	0	0	2	4	ORION VENTURE LLC	2	114 MACARTHUR DRIVE		NEW BEDFORD	MA	02740	(508) 992-3334
193	410221	JUSTICE	0	1	1	1	1	4	NORDIC INC	2	2 MIDDLE STREET		FAIRHAVEN	MA	02719	(508) 997-5331
194	410226	ZEUS	1	1	0	1	1	4	STEPHANIE FISHING CORP	2	84 FRONT STREET		NEW BEDFORD	MA	02740	(508) 992-3334
195	410228	VIRGINIA QUEEN	0	1	0	1	2	4	GLOUCESTER SEAFOOD OF VA INC	2	5430 WHITE HALL ROAD		GLOUCESTER	VA	23061	(757) 880-1919
196	410229	AVENGER	1	1	0	0	2	4	AVENGER FISHING LLC	2	113 MACARTHUR DRIVE		NEW BEDFORD	MA	02740	(508) 996-0525
197	410232	SUSAN L	0	1	0	1	2	4	FIVE FATHOMS INC	2	PO BOX 497		CAPE MAY	NJ	08204	(609) 884-3405
198	410235	ELIZABETH & NIKI	0	1	1	1	1	4	ELIZABETH & NIKI FISHING CORP	2	114 MACARTHUR DRIVE		NEW BEDFORD	MA	02740	(508) 994-4264
199	410236	VILA DO CONDE	1	1	1	0	1	4	VILA DO CONDE INC	2	19 ROSSI DRIVE		CAPE MAY	NJ	08204	(609) 972-6492
200	410238	STEPHANIE VAUGHN	0	1	1	0	2	4	C & I FISHING CORP	5	84 FRONT STREET		NEW BEDFORD	MA	02740	(508) 992-3334
201	410239	LEADER	1	1	1	0	1	4	LEADER FISHING LLC	2	607 SEASHORE ROAD		CAPE MAY	NJ	08204	(609) 884-3405
202	410247	FRONTIER	0	1	1	1	1	4	NORDIC FISHERIES INC	2	14 HERVEY TICHON AVENUE		NEW BEDFORD	MA	02740	(508) 993-5300
203	410248	MAELSTROM	1	1	0	1	1	4	NORDIC FISHERIES INC	2	14 HERVEY TICHON AVENUE		NEW BEDFORD	MA	02740	(508) 993-6730
204	410249	WESTPORT	1	1	0	1	1	4	E & J SCALLOP CORP	2	113 MACARTHUR DRIVE		NEW BEDFORD	MA	02740	(508) 996-0525
205	410251	AMBER NICOLE	0	1	1	0	2	4	AMBER NICOLE INC	2	607 SEASHORE ROAD		CAPE MAY	NJ	08204	(609) 884-1771
206	410253	SETTLER	0	1	1	0	2	4	FRONTIER FISHING CORP	2	113 MACARTHUR DRIVE		NEW BEDFORD	MA	02740	(508) 758-4236
207	410254	EXPLORER	0	1	0	1	2	4	FAIR TRADE FISH COMPANY INC	2	20 BLACKMER STREET		NEW BEDFORD	MA	02744	(508) 996-3742
208	410255	MISS MAUDE	0	1	1	1	1	4	FAITH EVELYN INC	2	48 WATER STREET		HAMPTON	VA	23663	(757) 728-0600
209	410261	LEGACY	0	1	0	1	2	4	ADMIRAL INC	2	2 MIDDLE STREET		FAIRHAVEN	MA	02719	(508) 758-3427
210	410266	ROST	0	1	0	1	2	4	NORDIC FISHERIES INC	2	14 HERVEY TICHON AVENUE		NEW BEDFORD	MA	02740	(508) 993-5300
211	410267	MADISON KATE	0	1	1	1	1	4	SEA VENTURES LLC	2	2 MIDDLE STREET		FAIRHAVEN	MA	02719	(508) 996-0313
212	410268	GENERATION	1	1	1	0	1	4	NORDIC FISHERIES INC	2	14 HERVEY TICHON AVENUE		NEW BEDFORD	MA	02740	(508) 993-5300
213	410269	FRIENDSHIP	1	1	1	0	1	4	OHARA CORPORATION	2	14 HERVEY TICHON AVENUE		NEW BEDFORD	MA	02740	(508) 993-5300
214	410270	MARGARET ROSE	1	1	0	1	1	4	POOR BOY LLC	2	659 CRAWFORD ROAD		CAPE MAY	NJ	08204	(609) 884-9068
215	410275	APOLLO	1	1	0	0	2	4	APOLLO FISHING LLC	2	84 FRONT STREET		NEW BEDFORD	MA	02740	(508) 992-3334
216	410279	NADIA LEE	1	1	1	0	1	4	ATLANTIC SHELLFISH INC	2	607 SEASHORE ROAD		CAPE MAY	NJ	08204	(609) 884-1771
217	410280	AMBITION	1	1	0	1	1	4	NORDIC FISHERIES INC	2	14 HERVEY TICHON AVENUE		NEW BEDFORD	MA	02740	(508) 993-5300
218	410281	OCEAN LEADER	0	1	0	1	2	4	NEW OCEAN LLC	2	74 MAIN STREET		FAIRHAVEN	MA	02719	(508) 996-3742





	Permit	Vessel or CPH Name	CAI	CA2	NLS	DMV	HC	Sum	Owner	CAT	Address 1	Address 2	City	State	Zip	Telephone
307	410601	HORIZON	0	1	1	0	2	4	NORDIC FISHERIES INC	2	14 HERVEY TICHON AVENUE		NEW BEDFORD	MA	02740	(508) 993-5300
308	410603	ARCTURUS	1	1	0	0	2	4	OHARA CORPORATION	2	14 HERVEY TICHON AVENUE		NEW BEDFORD	MA	02740	(508) 993-5300
309	410604	ATHENA	0	1	1	1	1	4	ATHENA FISHING CORP	2	84 FRONT STREET		NEW BEDFORD	MA	02740	(508) 992-3334
310	410607	VANQUISH	0	1	0	1	2	4	NELSON FISHING INC	2	2 MIDDLE STREET		FAIRHAVEN	MA	02719	(508) 479-0729
311	410608	VAUD J	0	1	1	1	1	4	VAUD J INC	2	PO BOX 497		CAPE MAY	NJ	08204	(609) 884-3405
312	410610	CONCORDIA	0	1	0	1	2	4	KVILHAUG LLC	2	2 MIDDLE STREET		FAIRHAVEN	MA	02719	(508) 996-0313
313	330818	TRAVIS & NATALIE	1	1	0	0	2	4	ATLANTIC CAPES FISHERIES INC	5	985 OCEAN DRIVE		CAPE MAY	NJ	08204	(609) 884-3000