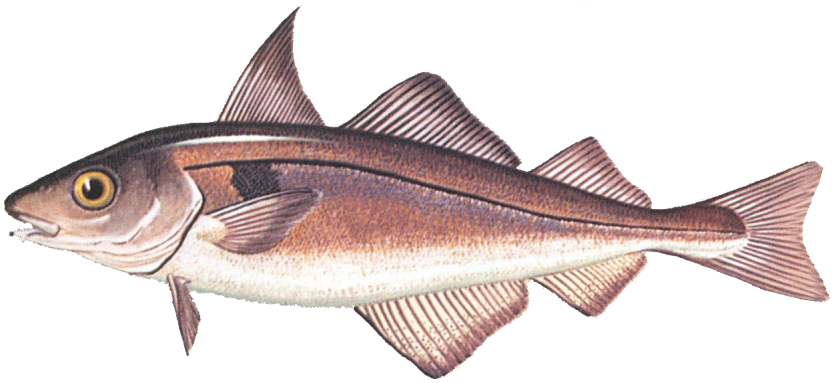
Supplemental Environmental Assessment

Secretarial Emergency Action to Revise Fishing Year 2014 Catch Limits for Gulf of Maine Haddock

Supplements the Environmental Assessment for Framework Adjustment 51 to the Northeast Multispecies Fishery Management Plan



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1.0 EXECUTIVE SUMMARY

The Secretary of Commerce (Secretary) finds that emergency action, under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), is necessary to revise the fishing year (FY) 2014 catch limits for Gulf of Maine (GOM) haddock, managed by the Northeast (NE) Multispecies Fishery Management Plan (FMP). The principal goal of this emergency action is to respond to the best available science to prevent foregone economic yield or substantial community impacts and potentially preserving an economic opportunity that otherwise would not be available without this action. The recent benchmark stock assessment by the Stock Assessment Review Committee (SARC 59, August 2014) indicates that the GOM haddock stock status should be changed to reflect that it is not overfished and overfishing is not occurring. Therefore, the FMP should be revised in order to incorporate and respond to such information. This supplemental Environmental Assessment (EA) analyzes the environmental impacts of an emergency action, which compares alternatives, as required under the National Environmental Policy Act (NEPA), to quickly respond to this recent scientific information until such time that the New England Fishery Management Council (Council) can incorporate the new information into the FMP.

Specifically, this emergency action would implement the following actions for GOM haddock, described in more detail below: (1) Revise the GOM haddock stock status determination criteria; (2) revise the GOM haddock Overfishing Level (OFL), Acceptable Biological Catch (ABC) and Annual Catch Limits (ACLs); and (3) specify the GOM haddock sub-ACLs for the commercial and recreational fisheries.

On May 1, 2014, the final rule implementing Framework Adjustment (FW) 51 to the FMP (79 FR 22421; April 22, 2014) implemented an overfishing limit of 440 mt for GOM haddock, with an allowable biological catch of 341 mt (Table 1). The FY 2014 catch limits for GOM haddock were substantial reductions of catch levels from prior years, and this action would provide relief from those restrictive ACLs that could enhance fishermen's opportunity to harvest optimum yield.

Emergency action to revise the GOM haddock catch limits based on the stock assessment results provides timely incorporation of scientific information and enables the fishery to remain open longer. Immediate regulatory action mitigates potential disruptions in the fishing industry and foregone economic yield as fishermen would otherwise likely have to substantially modify or cease fishing operations. This increased operational flexibility will also help fishermen adjust to additional interim measures that increase GOM cod protections, such as seasonal closed areas. The supplemental EA analyzes potential impacts from increasing the GOM haddock OFL, ABC, and ACLs.

<u>Increasing the GOM Haddock Catch Limits</u> – Alternative 2 (the preferred alternative) changes the status determination criteria and associated catch levels. Alternative 2 allocates additional GOM haddock to the fishery for fishing year 2014 (Table 1). Alternative 2 also revises the status determination criteria, increases quotas and catch limits, modifies sector allocations, and increases common pool trimester quotas. This alternative would not modify current recreational fishing measures or common pool trip limits.

Alternative 1: Status Quo/No Action
Alternative 2: Increased catch limits

Table 1. Current and Proposed GOM Haddock Status Determination Criteria and Potential Catch Levels for FY 2014

Parameter or Catch Level	Alternative 1 Current Fishing Year 2014 Values (mt)	Alternative 2 Proposed Fishing Year 2014 Values (mt)
Status Determination Criteria: Bmsy (biomass associated with maximum sustainable yield)	SSB_{msy} = 4,904 MSY = 1,117	SSB_{msy} = 4,108 MSY = 955
Status Determination Criteria: Fmsy (fishing mortality associated with maximum sustainable yield)[1]	F_{msy} proxy = 0.46	F_{msy} proxy = 0.46
Overfishing Level (OFL) of Catch	440	1085
Acceptable Biological Catch (ABC)	341	677
Total ACL	323	641
Groundfish sub-ACL	307	610
Sector sub-ACL	218	432
Common Pool sub-ACL	2	4
Recreational sub-ACL	87	173
State Waters ACL subcomponent	5	10
Other ACL subcomponent	7	15
Mid-Water Trawl sub-ACL	3	6

[1] Value not in metric tons (mt)

Summary of Environment Consequences

The revision to the Status Determination Criteria and ACLs align current management measures with the best available scientific information. Revising the FY 2014 catch limits could result in the opportunity for substantially greater amounts of GOM haddock catch than under the No Action Alternative (an increase from 307 mt to 610 mt sub-ACL for the groundfish fishery). The revised level of GOM haddock catch for FY 2014 is consistent with sustaining the biomass over the long-term at the level associated with maximum sustainable yield (Bmsy) and fishing at a sustainable level of mortality (Fmsy). Both scientific and management uncertainty are accounted for in this catch level, so the risks of negative biological impacts on haddock have been minimized. A larger catch limit for GOM haddock may result in greater fishing effort and greater catch of other stocks in addition to GOM haddock, as compared to the No Action Alternative, because GOM haddock is less likely to serve as a constraining stock. While this increase would reduce the constraint from GOM haddock, there are several other stocks that may constrain the fishery even more than GOM haddock, including GOM cod and American plaice. While there could be an effort increase for GOM haddock as a result, a substantial increase is unlikely. Therefore, compared to the No Action Alternative, the impact of Alternative 2 on protected resources would likely be negligible. The scope of this effort increase with respect to the overall fishery is expected to be negligible. Similarly, for essential fish habitat (EFH), an effect of an increase in fishing effort on GOM haddock, compared to the No Action Alternative, would be negligible.

The increased GOM haddock ACL under this emergency action would represent an increase in operational flexibility and likely a small increase in revenue. After the substantial reduction in groundfish catch limits from last year, combined with likely further cuts in GOM cod this year,

this operational flexibility and potential increase in revenue is important. Further, the economic analyses may undervalue the revenue increase that could happen because GOM haddock are more prevalent than in the years during which the data were gathered to incorporate into the model. While Framework 51 did not assume that GOM haddock would be a constraining stock, as of September 23, 2014, more of the GOM haddock quota has been caught than any other allocated stock. Without an emergency action raising this year's catch limits, it is likely that the limits will be reached and fishermen will lose the ability to fish for other stocks within the GOM haddock stock area. Increasing the quota for this stock will provide an opportunity for operational flexibility that may provide additional catch and revenue from not only GOM haddock, but other healthy stocks that are caught in the GOM, such as pollock and Acadian redfish. This is especially significant given potentially substantial restrictions on opportunities to fish for GOM cod.

The recent GOM cod stock assessment revealed very low biomass with continued overfishing. The New England Fishery Management Council has requested that the NMFS take interim action to reduce GOM cod fishing mortality, and along with this GOM haddock action, NMFS is concurrently implementing interim management measures to protect GOM cod. It remains unclear how future actions to restrict GOM cod catch would influence the ability for fishermen to take advantage of the quota increase of GOM haddock. Because GOM haddock and cod are frequently intermixed, they tend to be caught together. Therefore, any interim management actions that include effort controls (such as closed areas) that prevent access to GOM cod could also prevent access to GOM haddock.

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2.0 BACKGROUND

Framework 51 (79 FR 22421, April 22, 2014) set an ABC for GOM haddock at 341 metric tons (mt) and a total ACL of 323 mt. Annual specifications, such as the GOM haddock quota that was set in Framework 51, are adjusted annually after final sector rosters are submitted to NMFS. Table 2 describes the current GOM haddock allocations.

Table 2. Current GOM Haddock Allocations for fishing year 2014 (mt)

OFL	ABC	Total ACL	Groundfish Fishery	Sector Fishery	Common Pool	Recreational Groundfish	Midwater Trawl	State Waters	Other
440	341	323	307	218	2	87	3	5	7

Section 305(c) of the MSA authorizes the Secretary of Commerce 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 involving recently discovered circumstances that present serious conservation or management problems in the fishery 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 measures may remain in place for 180 days, but may be extended for an additional 186 days if the public has had an opportunity to comment on the measures. This supplemental EA analyzes the impacts of the action for the duration of a year.

The results of the 2014 GOM haddock assessment (SARC 59), as described in more detail under Section 5.2 of this document, provide a new understanding of the status of GOM haddock. In contrast to the status of GOM haddock at the time FW 51 set FY 2014 specifications, the stock is not thought to be overfished and overfishing is not occurring (i.e., the fishing mortality is at a sustainable level). The previous assessment indicated that the stock was approaching an overfished condition. Because of the improved stock status, revising GOM haddock catch levels is necessary to provide an opportunity for achieving OY. The new scientific information indicates that the catch level of GOM haddock is larger than the catch levels specified by FW 51 for FY 2014.

There is some uncertainty in the assessment regarding the size of the 2012 GOM haddock year class. As explained in Section 5.2, a sensitivity analysis developed in SARC 59 placed additional constraint on the estimation of the 2012 year class to illustrate the impacts of this uncertainty on catch projections. The catch projections within this EA are based on this sensitivity run and offer a more conservative quota increase as a result.

The emergency action addresses possible management problems to the fishery because the current low catch limits for various stocks, including GOM haddock, along with increased restrictions on fishing for GOM cod, could result in substantially reduced fishing effort and decreased catch and revenue due to the multispecies nature of the fishery. When the projected catch of the ACL for a single stock such as GOM haddock triggers a reduction or cessation of fishing effort (as required by the FMP for commercial vessels), not only is the catch of GOM haddock affected, but the catch of numerous other stocks that are caught concurrently is also reduced.

Although the Council has the authority to develop a management action to modify the GOM haddock catch limits, an emergency action can be developed and implemented by NMFS more swiftly than a Council action which is subject to procedural and other requirements not applicable to the Secretary. On July 9, 2014, the Council asked that NMFS "modify the Gulf of Maine haddock ACL for FY 2014… based on the final results of the assessment (SARC 59) that would result in a quota increase." The Council requested NMFS assistance because, if the normal regulatory process were used to revise the GOM haddock catch limit, it would take substantially longer for the new limits to be implemented, and could result in overly restrictive and economically harmful catch limits that otherwise may have been avoidable.

Only one option (in addition to the No Action option) is analyzed for revising the status determination criteria and annual catch limits, because of the narrow objective of the action, i.e., the revision of the GOM haddock catch limit specifications for FY 2014. Given the short duration that this action would be in effect, and the fact that the proposed alternative is within the context of management measures already in place, it is not feasible to consider a broader range of options. Furthermore, consideration of a broader suite of options would undermine NMFS's ability to analyze and implement new catch specifications in a timely manner. The maximum scope of this action is only for the extent of emergency authority - one year. The Council is including revised GOM haddock specifications based on SARC 59 in Framework 53 and may consider a more comprehensive set of alternatives for long-term modifications to the FMP.

3.0 PURPOSE AND NEED

The purpose of this action is to revise GOM haddock catch limits (ACLs) for the remainder of fishing year 2014, based on the findings from SARC 59. The need for this action is to update the FMP with the best available science from SARC 59 to ensure that ACLs are set in such a manner as to achieve OY, and to minimize economic harm on the fishing industry from the constraining quotas set in FW 51 that are now unnecessary given the recent assessment. Given the short duration that this action would be in effect, and the fact that the proposed alternative is within the context of management measures already in place and would allow for the continued operation of the fishery, it is not feasible to consider an extensive range of alternatives. Consideration of a broader suite of alternatives would undermine NMFS's ability to analyze and implement new measures. In addition, the Council is considering a more comprehensive suite of alternatives for

long-term modifications to the FMP as part of FW 53, which, if approved, would be effective at the beginning of FY 2015.

4.0 PROPOSED ACTION AND ALTERNATIVES

The proposed action and other alternatives considered in this supplemental EA are described in the following sections and summarized in the subsequent tables

4.1 ALTERNATIVE 1 – NO ACTION

The status determination criteria for no action would remain the same as determined during the 2012 GOM haddock stock assessment update, which included information through the 2010 calendar year. Using the 2012 assessment and realized catches in 2013, the projected SSB in 2014 is estimated to be 2,868 mt and fishing mortality (F) is estimated to be 0.82.

The current biological reference points are:
SSBmsy proxy= 4,904 mt,
Fmsy proxy = 0.46, and
MSY proxy= 1,177 mt.

Under the No Action alternative, no revisions would be made to any of the GOM haddock catch limits Framework 51 set for FY 2014 (Table 3). Those values, including the commercial (sector and common pool sub-ACLs) and recreation sub-ACLs, as well as the sector-specific allocations, would remain as specified by the Framework 51 final rule.

4.2 ALTERNATIVE 2 - REVISED STATUS DETERMINATION CRITERIA AND ASSOCIATED CATCH LIMITS (PREFERRED ALTERNATIVE)

The status determination criteria for Alternative 2 would reflect the findings of SARC 59, which included information through the 2013 calendar year. Based on the revised assessment, SSB is estimated to be 4,153 mt while F_{full} is estimated to be 0.39.

The revised biological reference points would be:
SSBmsy proxy= 4,108 mt,
Fmsy proxy = 0.46, and
MSY proxy= 955 mt.

Alternative 2 would increase the FY 2014 GOM haddock catch limits to reflect the results of the 2014 GOM haddock benchmark assessment (SARC 59), based on a sensitivity analysis. Due to the high uncertainty of the size of the 2012 year class, two projection models were developed. The first is based on the final population model and the second is based on a sensitivity model that constrained the size of the 2012 year class. The OFL proposed in Alternative 2 is based on the final population model, which represents the biological reference points that result from SARC 59, while the ABC, ACL, and sub-ACLs in this emergency action are based on the sensitivity model. This deviates from the ABC control rule implemented in Amendment 16, which calculates ABC as the projected catch associated with 75 percent of Fmsy. However, this cautious approach still supplies a large quota increase for fishing vessels while limiting the risk of overfishing from increasing the GOM haddock quota limits. Table 3 compares the catch limits between Alternatives 1 and 2. Tables 4 and 5 show how the proposed alternative would

increase sector specific allocations and common pool trimester quotas. Any Trimester 1 quota that is unused by the common pool is carried over into Trimester 2, and unused Trimester 2 quota is carried over to Trimester 3.

Table 3. Revised GOM Haddock Catch Levels for FY 2014 (mt)

GOM Haddock Catch Limit	Current Specifications Alternative 1 (no action)	Revised Specifications Alternative 2
Overfishing Level (OFL) of Catch	440	1085
Acceptable Biological Catch (ABC)	341	677
Total ACL	323	641
Groundfish sub-ACL	307	610
Sector sub-ACL	218	432
Common Pool sub-ACL	2	4
Recreational sub-ACL	87	173
State Waters ACL subcomponent	5	10
Other ACL subcomponent	7	15
Mid-Water Trawl sub-ACL	3	6

Table 4. GOM Haddock Annual Catch Entitlement by Sector for FY 2014 (lb)

Sector Name	Current FY 2014 Allocation Status Quo	Revised Allocation (Alternative 2)
Fixed Gear Sector	8,922.32	17,520.18
Maine Coast Community Sector	12,375.78	24,301.54
Maine Permit Bank	5,431.97	10,666.42
NEFS 1	12.03	23.63
NEFS 2	79,343.13	155,801.06
NEFS 3	45,030.20	88,422.95
NEFS 4	40,511.81	79,550.47
NEFS 5	1,406.55	2,761.95
NEFS 6	18,660.52	36,642.48
NEFS 7	2,275.42	4,468.11
NEFS 8	974.47	1,913.50
NEFS 9	23,256.90	45,668.10
NEFS 10	12,284.38	24,122.06
NEFS 11	15,567.10	30,568.12
NEFS 13	4,793.20	9,412.10
NCCS	1,744.68	3,425.92
New Hampshire Permit Bank	150.95	296.41
Sustainable Harvest Sector 1	207,161.20	406,789.26
Sustainable Harvest Sector 3	316.08	620.67
Sector Total	480,218.69	942,974.93
Common Pool	4,798.26	9,422.05

NEFS = Northeast Fishery Sector, NCCS = Northeast Coastal Communities Sector

Table 5. GOM Haddock Common Pool Trimester TACs for FY 2014 (mt)

Trimester	Trimester Allocations	Current FY 2014 Allocation Status Quo/Alternative 1	Revised Allocation Alternative 2
Trimester 1	27%	.51	1.17
Trimester 2	26%	.49	1.12
Trimester 3	47%	.88	2.03

Duration of GOM haddock Catch Limits

Because the revised specifications would be implemented through emergency action, the duration of the action would be limited by the MSA to an initial period of 180 days, with a potential extension of an additional 186 days. NMFS anticipates that the Council will submit revised catch limits for GOM haddock in time for NMFS to approve this action in Framework 53 for FY 2015. However, if the anticipated Council action to specify catch levels for FY 2015 and 2016 is delayed, NMFS may need to extend the GOM haddock catch limits implemented through this emergency action until Framework 53 is approved if necessary.

Rationale

Based on the recent benchmark stock assessment for GOM haddock, and the revised status of the stock, increased annual catch limits for 2014 are warranted. Under the current FMP, the NMFS Administrator, Greater Atlantic Region, has the authority to increase the common pool trip limit (which is currently 25 lbs/trip) in order to facilitate achievement of the common pool sub-ACL for GOM haddock. NMFS will monitor the fishery closely, and if a catch projection indicates that the trip limit for GOM haddock should be increased, NMFS will take in season action to do so.

5.0 AFFECTED ENVIRONMENT

The Framework 51 EA is incorporated by reference, and includes detailed descriptions of the valued ecosystem components (VECs) which comprise the affected environment. Section 6.0 provides background data in support of these VECs. Discussion of physical environment/habitat/EFH is included in Section 6.1 of the Framework 51 EA and describes the primary geographic areas affected by the alternatives (Gulf of Maine, Georges Bank, and Southern New England), habitat, EFH and gear types. Allocated target species are addressed in Section 6.2, which includes species and stock status descriptions, assemblages of fish species, stock status trends, areas closed to fishing in the northeast region, and gear interactions. A discussion of non-allocated target species and bycatch, including spiny dogfish, skates and monkfish as well as gear interactions with these species, is included in Section 6.3. Protected resources are addressed in Section 6.4 of the Framework 51. This section discusses protected resources present in the area, protected species potentially affected, species not likely to be affected, and the interactions between gear and protected resources. Human communities within the affected environment are addressed in Section 6.5, and include an overview of the New England groundfish fishery and an overview of each sector.

The measures in Framework 51 were expected to result in a slight increase in habitat impacts due to two factors: the modification in the GOM cod and American plaice rebuilding strategies and the specifications that would be higher under the preferred alternative than under No Action.

Allowing additional fishing could increase habitat impacts. The small-mesh fishery AM for GB yellowtail flounder could reduce fishing effort if triggered and reduce impacts to habitat.

When compared to recent fishing activity, the specifications that result from Framework 51 are likely to lead to negligible reduced impacts on endangered and protected species. Impacts of the preferred alternatives within Framework 51 for specifications may be higher than under the No Action alternative, however, because these stocks that would not have any specifications under the No Action alternative, which could reduce fishing effort. The revised GOM cod and American plaice rebuilding strategies included in Framework 51 may result in a small increase in groundfish fishing activity in the stock area but this small increase is not expected to impact protected species. The small-mesh fishery AM for GB yellowtail flounder could reduce fishing effort if triggered and reduce impacts to endangered and protected species.

As this is a supplement to FW 51, only new and relevant data not included in FW 51, is discussed in Section 5.0 below, however, the sections incorporated by reference are summarized below.

Framework 52 to the groundfish plan is currently under development and will be available to the public prior to being finalized. The affected environment section of the Framework 52 EA differs from the Framework 51 EA only by incorporating additional data on windowpane flounder catch and discards. For these reasons, any other analyses that may be incorporated in Framework 52, that was not included in Framework 51, is not incorporated into this document.

As mentioned above, along with this emergency action, NMFS is issuing another interim action to increase protections for GOM cod, a stock that is in very poor condition. Management measures in the GOM cod interim action include seasonal closed areas to protect spawning fish and reduce mortality, as well as other management measures that would help promote GOM cod rebuilding efforts. Descriptions on how the GOM haddock emergency and GOM cod interim actions may intermix are included in the cumulative effects sections.

5.1 COMMERCIAL LANDINGS AND ESTIMATED REVENUE

The Northeast Multispecies FMP specifies Annual Catch Limits (ACLs) for 20 stocks. The ACL is sub-divided into different components. Those components that are subject to AMs are referred to as sub-ACLs. There are also components of the fishery that are not subject to AMs. These include state waters catches that are outside of federal jurisdiction, and a category referred to as “other sub-components” that combines small catches from various fisheries. Tables 6 and 7 compare FY2013 sector and common pool catches to ACLs.

Table 6 - FY2013 Sector End of Year Accounting of Groundfish Catch (lbs)

Stock	ACE			Catch			
	FY13 Initial ACE	FY12 Carry-over[1,2,3,4]	Total ACE[5]	Landings	Discards	Catch	Percent Total ACE caught
	A	B	C	D	E	F	G
	A	B	A + B	D	E	D + E	F/C %
GB Cod East	199,323	NA	199,323	51,539	21,850	73,389	36.8
GB Cod West	3,715,647	985,979	4,701,626	3,242,102	80,955	3,323,057	70.7
GB Cod	3,914,970	985,979	4,900,950	3,293,640	102,805	3,396,446	69.3
GOM Cod	1,789,372	143,620	1,932,992	1,570,317	43,517	1,613,834	83.5
GB Haddock East	8,249,384	NA	8,249,384	1,165,570	110,565	1,276,136	15.5
GB Haddock West	49,316,108	5,942,196	55,258,304	4,778,128	509,132	5,287,260	9.6
GB Haddock	57,565,492	5,942,196	63,507,689	5,943,698	619,697	6,563,395	10.3
GOM Haddock	408,749	140,650	549,399	326,998	45,926	372,924	67.9
GB Yellowtail Flounder	336,532	NA	336,532	101,753	21,157	122,911	36.5
SNE/MA Yellowtail Flounder	1,074,748	128,463	1,203,211	597,436	24,033	621,469	51.7
CC/GOM Yellowtail Flounder	1,026,467	219,394	1,245,861	793,081	36,866	829,947	66.6
Plaice	3,075,663	695,267	3,770,930	2,837,589	230,440	3,068,029	81.4
Witch Flounder	1,321,319	13,114	1,334,434	1,321,920	86,644	1,408,564	105.6
GB Winter Flounder	7,729,022	728,020	8,457,042	3,784,842	11,594	3,796,436	44.9
GOM Winter Flounder	1,517,422	149,231	1,666,653	359,604	9,929	369,533	22.2
SNE Winter Flounder	2,367,913	0	2,367,913	1,462,832	15,070	1,477,902	62.4
Redfish	22,248,751	1,812,365	24,061,116	7,959,953	850,211	8,810,164	36.6
White Hake	8,425,153	705,318	9,130,471	4,445,893	51,041	4,496,934	49.3
Pollock	28,222,080	2,711,499	30,933,579	10,522,772	232,301	10,755,073	34.8
Northern Windowpane	NA	NA	NA	4	523,232	523,236	NA
Southern Windowpane	NA	NA	NA	0	189,500	189,500	NA
Ocean Pout	NA	NA	NA	0	60,133	60,133	NA
Halibut	NA	NA	NA	29,628	89,040	118,668	NA
Wolffish	NA	NA	NA	0	37,647	37,647	NA

[1]For most stocks, carryover from FY 12 was capped at 10% of the initial FY 12 allocation.

[2]For witch flounder, only *de minimis* carryover from FY12 was allowed. *De minimis* carryover was 1% of the FY13 initial ACE.

[3]GB Cod and GB Haddock may be carried over, but will be added to GB Cod west and GB Haddock west ACEs in the following fishing year.

[4]GB Yellowtail Flounder and non-allocated stocks cannot be carried over.

[5]ACE available after leasing

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Values are in live weight and include estimates of missing dealer reports. Differences with previous reports are due to corrections made to the database. Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

Source: NMFS Greater Atlantic Regional Office

Table 7 – FY 2013 Common Pool End of Year Accounting of Groundfish Catch (lbs)

Stock	ACE			Catch			
	FY13 Initial ACE	FY12 Carry-over[1,2,3,4]	Total ACE[5]	Landings	Discards	Catch	Percent Total ACE caught
	A	B	C	D	E	F	G
	A	B	A + B	D	E	D + E	F/C %
GB Cod East	4,409	NA	4,409	0	0	0	0.0
GB Cod West	66,139	NA	66,139	68,958	2,315	71,273	107.8
GB Cod	70,548	NA	70,548	68,958	2,315	71,273	101.0
GOM Cod	39,683	NA	39,683	18,796	599	19,395	48.9
GB Haddock East	26,455	NA	26,455	0	0	0	0.0
GB Haddock West	160,937	NA	160,937	871	81	952	0.6
GB Haddock	187,393	NA	187,393	871	81	952	0.5
GOM Haddock	4,409	NA	4,409	4,793	9	4,802	108.9
GB Yellowtail Flounder	4,189	NA	4,189	2	17	19	0.4
SNE/MA Yellowtail Flounder	216,494	NA	216,494	199,446	2,018	201,464	93.1
CC/GOM Yellowtail Flounder	28,660	NA	28,660	6,743	2,276	9,018	31.5
Plaice	55,116	NA	55,116	6,937	944	7,881	14.3
Witch Flounder	24,251	NA	24,251	6,308	1,103	7,411	30.6
GB Winter Flounder	48,502	NA	48,502	0	5	5	0.0
GOM Winter Flounder	57,320	NA	57,320	3,764	47	3,811	6.6
SNE Winter Flounder	299,829	NA	299,829	250,002	10,748	260,750	87.0
Redfish	88,185	NA	88,185	7,581	2,071	9,652	10.9
White Hake	59,525	NA	59,525	11,441	1,413	12,854	21.6
Pollock	200,621	NA	200,621	78,958	1,620	80,579	40.2
Northern Windowpane	NA	NA	NA	0	433	433	NA
Southern Windowpane	NA	NA	NA	153	65,926	66,079	NA
Ocean Pout	NA	NA	NA	2	13,054	13,056	NA
Halibut	NA	NA	NA	1,843	113	1,956	NA
Wolffish	NA	NA	NA	0	20	20	NA

[1]For most stocks, carryover from FY 12 was capped at 10% of the initial FY 12 allocation.

[2]For witch flounder, only *de minimis* carryover from FY12 was allowed. *De minimis* carryover was 1% of the FY13 initial ACE.

[3]GB Cod and GB Haddock may be carried over, but will be added to GB Cod west and GB Haddock west ACEs in the following fishing

[4]GB Yellowtail Flounder and non-allocated stocks cannot be carried over.

[5]ACE available after leasing

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Values are in live weight and include estimates of missing dealer reports. Differences with previous reports are due to corrections made to the database. Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

Source: NMFS Greater Atlantic Regional Office

Framework 51 included an analysis utilizing the Quota Change Model (QCM), which is used to predict the potential impact of changes in quota on the sector-based commercial fishery (Table 8). The QCM is a simulation model that selects trips from existing catch records that are representative of those trips most likely to take place under the new quota conditions. A pool of 100,000 actual trips is selected based on each trip's use of allocated ACE, using fishery-dependent trip-level data from FY2012. The more efficiently a trip used its ACE, the more likely that trip is to be drawn into the pool, and, potentially, the more times that trip will be replicated within the pool. ACE efficiency is determined by the ratio of ACE expended to net revenues on a trip for each of the 16 allocated stocks. Net revenues are calculated as gross revenues minus trip costs minus quota leasing costs, where trip costs are based on observer data and quota leasing costs are estimated from an inter-sector lease value model based on FY2012 (Murphy, et al. 2012). Trips that were particularly ACE-inefficient are not drawn into the pool at all. The model pulls trips from the pool at random, summing the ACE expended for the 16 allocated stocks as trips are drawn. When one stock's ACE reaches the allocated limit, no trips from that broad stock area are selected and the model continues selecting trips until quota limits are achieved in all three broad stock areas or for one of the unit stocks.

By running simulations based on actual trips, the model implicitly assumes that stock conditions existing during the data period are representative, that trips are repeatable, and that price/quantity relationships realized during the data period are applicable to the forecast period (FY2014). Use of existing trip net revenues requires an assumption of constant trip costs and constant quota costs. These assumptions will surely not hold—fisherman will continue to develop their technology and fishing practices to increase their efficiency, market conditions will induce additional behavior changes, and fishery stock conditions are highly dynamic. Fuel and other costs may change due to larger economic shifts or shoreside industry consolidation. Quota lease prices will certainly increase under more restrictive allocations, though it is impossible to estimate the magnitude of these increases.

In general, the model will under-predict true landings and/or revenues if stock conditions improve, if prices rise in response to lower quantities landed, or if fisherman become more efficient at maximizing the value of their ACE. Conversely, the model will over-predict true landings and/or revenues if stock conditions decline, markets deteriorate or fishing costs increase. The model will over-predict landings if stock conditions for a highly constraining stocks are such that catchability increases substantially and/or fisherman are unable to avoid the stock--in this circumstance, better than expected stock conditions may lead to worse than anticipated fishery performance.

Table 8 – Framework 51 predicted catch (lbs) and gross revenue by stock from simulation model (*500 realizations*).

Species	Stock	Limit	Catch	Use	Ex-vessel Value
American plaice		2,996,079	2,629,857	88%	$3,903,973
Cod	GB East	319,670	146,707	46%	$162,253
	GB West	3,492,118	3,363,083	96%	$6,820,426
	GOM	1,794,561	1,769,437	99%	$4,280,519
Haddock	GB East	21,982,266	804,401	4%	$1,219,368
	GB West	41,151,437	1,747,944	4%	$2,793,642
	GOM	480,607	367,450	76%	$780,661
Halibut		0	96,646	.	$146,703
Non-Groundfish		0	21,827,479	.	$15,437,992
Ocean Pout		0	76,571	.	$0
Pollock		28,964,298	11,869,407	41%	$10,856,342
Redfish		23,197,012	7,414,715	32%	$3,727,931
White Hake		9,497,503	4,259,018	45%	$5,698,826
Windowpane	North	0	228,891	.	$1
Windowpane	South	0	232,426	.	$0
Winter flounder	GB	7,416,342	4,477,145	60%	$9,061,821
	GOM	1,521,849	258,900	17%	$539,169
	SNE/MA	2,134,072	210,003	10%	$2,490
Witch flounder		1,324,977	1,301,836	98%	$2,467,637
Wolffish		0	44,458	.	.
Yellowtail flounder	CC/GOM	1,029,558	745,874	72%	$1,029,291
	GB	554,462	368,615	66%	$574,568
	SNE/MA	992,079	991,296	100%	$1,506,325
	TOTAL		**65,232,160**		**$71,009,940**
TOTAL GROUNDFISH		**148,848,888**	**43,404,682**	**29%**	**$58,653,156**

The Greater Atlantic Regional Fisheries Office also monitors, in season, catch by commercial vessels to ensure that quotas are not exceeded. Table 9 shows the in-season catch estimates as of September 23, 2014.

Table 9 – Commercial groundfish catch of allocated stocks for the 2014 fishing year as of September 23, 2014

Stock	Cumulative Kept (mt)	Cumulative Discard (mt)	Cumulative Catch (mt)	Sub-ACL* (mt)	Percent Caught
GB Cod East	12.1	1.4	13.6	148.0	9.2
GB Cod	521.7	6.9	528.7	1,769.0	29.9
GOM Cod	275.3	6.5	281.8	830.0	33.9
GB Haddock East	449.6	40.0	489.6	10,003.0	4.9
GB Haddock	2,090.2	198.6	2,288.8	17,172.0	13.3
GOM Haddock	119.4	11.1	130.5	220.0	59.3
GB Yellowtail Flounder	24.0	5.5	29.5	254.6	11.6
SNE/MA Yellowtail Flounder	134.2	1.9	136.1	564.0	24.1
CC/GOM Yellowtail Flounder	118.1	4.8	122.9	479.0	25.7
Plaice	515.4	37.2	552.6	1,399.0	39.5
Witch Flounder	200.7	10.1	210.8	610.0	34.6
GB Winter Flounder	833.3	1.9	835.3	3,385.0	24.7
GOM Winter Flounder	54.2	4.5	58.8	714.0	8.2
SNE Winter Flounder	261.2	83.3	344.4	1,210.0	28.5
Redfish	2,140.8	187.8	2,328.6	10,565.0	22.0
White Hake	746.7	13.5	760.3	4,277.0	17.8
Pollock	1,648.5	49.0	1,697.6	13,224.0	12.8

* Does not include Sector Carryover. GB Cod and GB Haddock include GB Cod East and GB Haddock East respectively.

5.2 SARC 59 DISCUSSION

The previous benchmark assessment (i.e., GARM III) of Gulf of Maine haddock was conducted using a virtual population analysis model (ADAPT-VPA) that incorporated commercial landings and discards, as well as recreational landings, but not recreational discards. For this assessment, catch-at-age was re-estimated owing to minor modifications to the commercial and recreational catch estimation methodologies. The updates had only minor impacts on the estimated catch-at-age.

For SAW/SARC 59, the assessment was conducted using the statistical catch-at-age model; ASAP. The catch inputs included landings and discards from both the commercial and recreational fleets. Fishery removals were modeled as a single fleet, although model sensitivities, which explored separate commercial and recreational fleets, indicated that the model results were robust to this configuration. Trawl gear is the primary mode of capture in the commercial fishery, and as such, commercial discards were assumed to suffer 100% mortality. The recreational discard mortality was assumed to be 50%, although model results were relatively insensitive to alternate assumptions.

The largest source of uncertainty in the SAW/SARC 59 GOM haddock stock assessment is the size of the potentially large 2012 year class; this is due to the fact that the estimate is based entirely on only two survey data points. Model sensitivities were explored to evaluate the effects of constraining the size of the 2012 year class. The final base model applies equal constraint to all recruitment estimates. The catch projections within this EA are based on this sensitivity run.

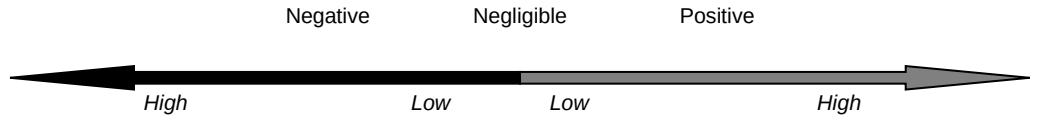
The SARC concluded that the change in stock status from the 2012 update (not overfished but approaching an overfished condition and overfishing occurring) to the current evaluation (not overfished and no overfishing) is due primarily to the addition of three more years of fishery and survey data. The final assessment model updated with this new information indicates that the change in status is driven by the estimate of the very strong 2010 year class, which is estimated to be 6.7 million age-1 fish.

6.0 DIRECT AND INDIRECT IMPACTS OF THE ALTERNATIVES

This supplemental EA evaluates the potential biological, physical, protected resources, and economic/social impacts using the criteria outlined in Table 5. Impacts from all alternatives are compared individually and judged relative to the baseline conditions, as described in Section 4.0 and Section 6.0 of the Framework 51 EA and incorporated by reference here.

Table 10. Criteria used to evaluate the direct and indirect impacts of the proposed and no-action alternatives

Impact Definition			
VEC	**Direction**		
	Positive (+)	**Negative (-)**	**Negligible (Negl)**
Target species, other landed species, and protected resources	Actions that increase stock/population size	Actions that decrease stock/population size	Actions that have little or no positive or negative impacts to stocks/populations
Physical Environment/ Habitat/EFH	Actions that improve the quality or reduce disturbance of habitat	Actions that degrade the quality or increase disturbance of habitat	Actions that have no positive or negative impact on habitat quality
Human Communities	Actions that increase revenue and social well-being of fishermen and/or associated businesses	Actions that decrease revenue and social well-being of fishermen and/or associated businesses	Actions that have no positive or negative impact on revenue and social well-being of fishermen and/or associated businesses
Impact Qualifiers:			
Low (L, as in low positive or low negative)	To a lesser degree (not significant)		
High (H; as in high positive or high negative)	To a substantial degree (not significant unless specified)		
Likely	Some degree of uncertainty associated with the impact		



6.1 BIOLOGICAL IMPACTS

In order to ensure timely analysis and implementation of this action, the impact analyses were conducted just prior to completion of the stock assessment peer review. Therefore, the numbers in the tables of economic impacts are estimates of the revenue increases that may be anticipated and are substantially similar to the final limits. The conclusions of the biological, economic, and social impacts are not affected by the minor discrepancy between value of the analyzed catch limits and the value of the limits that are proposed.

6.1.1 **Alternative 1 - No Action**

Impacts on Regulated Groundfish

Under the No Action Alternative described under Section 4.1.1, no revisions would be made to the status determination criteria or any of the GOM haddock catch limits for FY 2014 (as detailed in Table 3). Those values would remain as specified by the 2012 stock assessment update and Framework 51 final rule as modified by the final rule that made revisions to Framework 51 (75 FR 22421; April 22, 2014) as shown in Table 2. It is likely that the No Action Alternative will constrain the catch of other stocks in addition to Gulf of Maine haddock, due to the relatively low catch limit and the constraining management measures that are triggered when catch limits are reached in either the common pool or sectors.

The two elements of the No Action Alternative (Status Determination Criteria and Catch Limits) are closely tied together, and cannot realistically be analyzed independently of each other. Both the Status Determination Criteria and Catch Limits for GOM haddock are based upon the results of a 2012 stock assessment update, and theoretically could remain the same or be revised based upon the recent stock assessment (SARC 59). However, it would not be logical or consistent to revise one element and not the other. The MSA requires management measures to be based upon the best available scientific.

The No Action Alternative can be represented by the proposed action in the EA for Framework 51 (available online at http://www.nefmc.org/library/framework-51). Given the current understanding of the status of the stock (not overfished or subject to overfishing), and the fact that the No Action GOM haddock catch limits are well below the catch level associated with the maximum sustainable level of catch, when compared to Alternative 2, the no action would likely have low positive impacts on groundfish stocks as it would result in lower mortality of GOM haddock.

Impacts on Other Species

Adopting this option would not be expected to have direct impacts on non-groundfish species such as monkfish, dogfish, skates, and sea scallops. It does, however, determine the maximum fishing mortality rates that are permissible. Since the allowed catches could influence the level of fishing effort it may indirectly affect catches of monkfish, skates, and dogfish that are made while targeting groundfish stocks, but these effects are believed to be minimal. Other regulated species have their own catch limits and under the no action alternative, we don't expect any additional directed fishing pressure that would increase the rate of fishing on these species. The No Action alternative will have negligible biological impacts on other species.

6.1.2 Alternative 2 - Revised Status Determination Criteria and Associated Catch Limits (Preferred Alternative)

Impacts on Regulated Groundfish

The revision to the Status Determination Criteria and Annual Catch Limits will align current management measures with the best available scientific information. Revision to the FY 2014 catch limits will result in the possibility that more GOM haddock will be caught than under the No Action Alternative. The level of catch is consistent with sustaining the biomass over the long-term at the level associated with maximum sustainable yield (Bmsy) and fishing at a sustainable level of mortality (Fmsy). Both scientific and management uncertainty are accounted for in this catch level, so the risks of negative biological impacts have been minimized.

Although the standard ABC control rule implemented with Amendment 16 would establish an ABC of 844 mt based on the SARC 59's primary model OFL of 1085 mt, Alternative 2 would propose an ABC of 677 mt, based on a sensitivity analysis that discounted the 2012 year class due to uncertainty surrounding it (it has yet to enter the fishery).

The groundfish sub-ACL for GOM haddock (common pool and sector sub-ACLs combined) of 610 mt is 98% greater than the No Action sub-ACL of 323 mt. Although theoretically, this amount of GOM haddock could be caught (landings and discards), in reality, there will be other factors in the fishery that limit the amount of GOM haddock caught. For the common pool such limiting factors include: Relatively low DAS allocations, limitations in the market for leasing DAS, limited ability of vessel owners to afford leased DAS; and low annual catch limits for other stocks that will constrain the fishery. For sector vessels such factors include: Low GOM cod allocations based on historical catch as well other constraining stocks such as American plaice. A constraining stock is a stock for which the Annual Catch Limit (or Annual Catch Entitlement) is relatively low and due to the FMP rules, will constrain a vessels ability to fish. As specified in Framework 51, GOM cod is a key constraining stock, as well as American plaice and witch flounder. Despite the GOM haddock increase, these "choke stocks" will likely prevent the entire allocation of GOM haddock from being harvested. Lastly, interim GOM cod restrictions addressing the poor GOM cod stock condition will further constrain a vessel's ability to fish for GOM haddock.

For the reasons explained above, increasing the GOM haddock catch limit would have a negligible to low negative impact on regulated groundfish when compared to the no action alternative.

Impacts on Other Species

A larger catch limit for GOM haddock may result in greater catch of other stocks (monkfish, skates, and dogfish) in addition to GOM haddock, as compared to the No Action Alternative, because it could increase groundfish fishing effort, which could increase bycatch of other non-targeted stocks. Because all stocks have catch limits, and management measures designed to constrain catch, the additional fishing effort that could result from a larger GOM haddock catch limit is not likely to negatively impact other groundfish stocks, or result in catch exceeding catch limits for other stocks. The revised GOM haddock annual catch limits are expected to have little impact on the rate of bycatch, but could increase the net amount of bycatch slightly, if the increased catch limit enables vessels to increase their fishing effort. Further, vessels could potentially shift fishing effort off other stocks, such as monkfish, dogfish, and skates, and onto groundfish if the GOM haddock increase makes groundfish trips more feasible or profitable. Because of this variety of possibilities that are limited by other stock allocations and management measures alternative 2 would have a negligible to low negative impact on other species as compared to the no action alternative.

6.2 PHYSICAL ENVIRONMENT/HABITAT/EFH IMPACTS

6.2.1 Alternative 1 – No Action

Taking no action would result in no increase in fishing effort over what was assessed in FW51. A small increase in benthic habitats would continue as analyzed in FW51. As compared to Alternative 2, the no action alternative may result in less effort, and bottom impact. However, due to the reasons specified in the groundfish impacts section, it is not perceived that alternative 2 would result in a substantial increase in effort. Therefore, when compared to alternative 2, the no action alternative would likely have negligible to low positive impacts.

6.2.2 Alternative 2 – Revised Status Determination Criteria and Associated Catch Limits (Preferred Alternative)

Alternative 2 could potentially result in a slight increase in fishing effort (because there would be more GOM haddock to catch), and therefore, impacts on bottom habitats. This alternative would increase the overall quota available in the Gulf of Maine to commercial sector groundfish vessels (that make up 99% or more of the active groundfish fishery) from 32,041 mt to 32,255 mt. This would include allocations of GOM cod, GOM haddock, Cape Cod/GOM yellowtail flounder, American plaice, Witch flounder, GOM winter flounder, Acadian redfish, White hake, and pollock. This represents a 0.6% increase in the available quota that can be harvested in the Gulf of Maine – a small quota increase. It is possible that if GOM haddock is considered a "choke stock," increasing the allocation for GOM haddock may allow vessels to harvest more quota from other non-limited stocks (such as pollock). In other words, vessels would have access to the additional GOM haddock, as well as other stocks they were previously unable to harvest. However, compared to the fishing year 2010 GOM haddock allocation to sector vessels, which was 812 metric tons, an allocation of 432 for fishing year 2014, combined with reduced allocations of many other Gulf of Maine groundfish stocks over recent, will still maintain fishing effort at a rate much below what it has been historically. Furthermore, other groundfish stocks in the area, such as GOM cod and American plaice, could limit the potential catch of GOM haddock. This slight increase in GOM quota does not substantially negate the downward trend in groundfish allocations and associated fishing efforts.

This alternative would not provide any new, additional, access to year-round closed areas or habitat closed areas. Any effort increases would occur in areas that are already subject to fishing by mobile tending bottom gear. For all these reasons, Alternative 2 would have negligible to low negative impacts to habitat when compared to the no action alternative.

6.3 PROTECTED RESOURCES IMPACTS

6.3.1 Alternative 1 – No Action

Section 6.4 of the Framework 51 EA outlines in detail the protected species that are expected to be found in the GOM. In addition, the Framework 51 EA provides information on anticipated impacts to protected species resulting from commercial fisheries that operate in the GOM. As the No Action Alternative 1 would remain consistent with those actions assessed in the FW 51 EA, effects to protected resources would not change from those described and concluded in this EA (i.e., negligible impacts to protected species). Specifically, compared to Alternative 2, taking no

action would not result in increases to fishing effort. With less fishing effort, there is the potential for reduced interactions with protected resources; however, due to the reasons specified in the groundfish impacts section above, it is not anticipated that this effect would be substantial. Therefore, as previously described in FW51, Alternative 1 is likely to result in negligible impacts to protect species.

6.3.2 Alternative 2 – Revised Status Determination Criteria and Associated Catch Limits (Preferred Alternative)

Similar to the analysis in Framework 51, section 7.3.1.3.2, which analyzed the impacts of the FY 2014 specifications (groundfish allocations), Alternative 2 could potentially result in a slight increase in fishing effort (because there would be more GOM haddock to catch), and therefore, impacts to protected species. As described above, this alternative would increase the fishing year 2014 catch levels for GOM haddock (see Table 1); however, the impacts from these increases are not anticipated to be substantial. For instance, Alternative 2 would increase the GOM haddock ABC from 341 to 677 mt. While this is almost a 100% increase in ABC, the ABC would still be 46% less than the fishing year 2010 GOM haddock ABC, which was 1265 mt (Framework Adjustment 44, 75 FR 18356; April 9, 2010). Furthermore, the overall trend in groundfish catch limits and landings continues to decline.

Although this action would increase all of the GOM haddock sub-ACLs, including state-waters fisheries and mid-water trawl fisheries, environmental interactions are most likely to be experienced by the commercial groundfish vessels, specifically vessels enrolled in sectors, which comprise 99% or more of the active commercial groundfish fishery. Two other reasons this analysis focuses on commercial groundfish vessels are: (1) there are no recreational fishing measures in this action (other than increasing the ABC), and (2) commercial vessels are the vessels with gear (i.e., bottom otter trawls and gillnets) that is most likely to interact with protected species compared to other gear types (i.e., rod and reel, purse seins). For these reasons, the following discussion will primarily focus on the environmental impacts of the commercial groundfish vessels, with particular emphasis given to vessels enrolled in sectors as this portion of the groundfish fishery is most representative of the operational effects of this fishery on protected species.

As noted above, groundfish vessels enrolled in sectors make up 99% or more of the active commercial groundfish fishery. This alternative would increase sector vessel's allocation within the Gulf of Maine from 32,041 mt to 32,255 mt. This represents a 0.6% increase in the available quota – a small quota increase. It is possible that if GOM haddock is considered a "choke stock," increasing the allocation for GOM haddock may allow vessels to harvest more quota from other non-limited stocks (such as pollock and Acadian redfish). In other words, vessels would have access to the additional GOM haddock, as well as other stocks that vessels may not have been able to access had they hit their GOM haddock quota. However, compared to the fishing year 2010 GOM haddock allocation to sector vessels, which was 812 metric tons, a commercial allocation of 432 metric tons of GOM haddock for fishing year 2014, combined with reduced allocations of many other GOM groundfish stocks over recent, will still maintain fishing effort at a rate much below what it has historically been. Furthermore, other groundfish stocks in the area, such as GOM cod and American plaice, could limit the potential catch of GOM

haddock. This slight increase in GOM haddock quota does not substantially negate the downward trend in groundfish allocations and associated fishing efforts

Based on the above information, it is anticipated that this alternative would result in minimal, if any, effort shifts. Any effort increases would occur in areas that are already subject to fishing by bottom trawls and gillnets in the Gulf of Maine and therefore, in areas which have been considered by NMFS in its assessment of fishery effects to protected resources (i.e., ESA listed species and non-ESA listed species; see section 6.4.1, Table 13, in FW 51). In regards to non-ESA listed species, which consist of species of cetaceans and pinnipeds (marine mammals), although impacts to these species from Alternative 2 are somewhat uncertain, as quantitative analysis has not been performed; we have considered, to the best of our ability, available information on marine mammal interactions with commercial fisheries, of which, the multispecies is a component (Waring *et al*. 2014). Aside from harbor porpoise and several stocks of bottlenose dolphin, since 2010, there has been no indication that takes of non-ESA listed species of marine mammals in commercial fisheries has gone above and beyond levels which would result in the inability of each species population to sustain itself (Waring *et al*. 2014). Specifically, aside from harbor porpoise and several stocks of bottlenose dolphin, the potential biological removal (PBR) level has not been exceeded for any of the non-ESA listed marine mammal species identified in Table 13, section 6.4.1, in FW 51 (Waring *et al*. 2014). Although harbor porposise and several stocks of bottlenose dolphin have experienced levels of take that have resulted in the exceedance of each species PBR, take reduction plans have been implemented to reduce bycatch in the fisheries affecting these species (Harbor Porpoise Take Reduction Plan (HPTRP), effective January 1, 1999 (63 FR 71041; December 23, 1998); Bottlenose Dolphin Take Reduction Plan (BDTRP), effective April 26, 2006 (71 FR 24776; April 26, 2006)). These plans are still in place and are continuing to assist in decreasing bycatch levels for these species. Although we recognize that the information presented above is a collective representation of commercial fisheries interactions with non-ESA listed species of marine mammals, and does not address the effects of the multispecies fisheries specifically, the information does demonstrate that changes in allocations in the multispecies, or any other fisheries, whether higher or lower, since 2010, has not resulted in a collective level of take that threatens the continued existence of non-ESA listed marine mammal populations. Based on this information, and the fact that the multispecies fisheries must comply with specific take reduction plans (i.e., HPTRP, the BDTRP, ALWTRP); that there is continual monitoring of non-ESA listed marine mammal species bycatch; and that voluntary measures exist that reduce serious injury and mortality to marine mammal species incidentaly caught in trawl fisheries (additional information on the Atlantic Trawl Gear Take Reduction Team can be found at (www.greateratlantic.fisheries.noaa.gov/Protected/mmp/atgtrp/), we do not expect the proposed specifications under Alternative 2 to result in levels of take that would affect the continued existence of non- ESA listed species of marine mammals. For these reasons, and due to the fact that this alternative would not provide any new, additional, access to year-round closed areas, and would result in minimal, if any, shifts in effort, Alternative 2 would have negligible to low negative impacts on protected resources.

Although the impacts to ESA listed species from Alternative 2 are somewhat uncertain, as quantitative analysis has not been performed, we have considered, to the best of our ability, how the fishery has operated in regards to listed species since 2010, when allocations were higher than those under Alternative 2, to determine the proposed actions effects to ESA listed species.

In 2010 NMFS issued a biological opinion on the multispecies fishery that included an incidental take statement authorizing the take of specific numbers of ESA listed species of sea turtles. It should be noted that the 2010 biological opinion did not authorize the incidental take of ESA listed Atlantic salmon as there were no records of interactions between salmon and the groundfish fishery. However, even without an incidental take statement, observers are required to report all ESA species observed to be caught and no observed interactions were reported until 2013 (These interactions were considered and included in the 2013 batch biological opinion cited below). In addition, as Atlantic sturgeon were not listed at the time the 2010 biological opinion was written, this species was not considered in the this opinion; however, since this species listing in 2012 (77 FR 5880 and 77 FR 5914, February 6, 2012), it has been included in the most biological opinion issued by NMFS on December 16, 2013 .

The 2010 biological opinion concluded that the fishery may affect, but would not jeopardize the continued existence of any ESA listed species of sea turtles or whales. As noted above, as a primary component of the multispecies fishery, the GOM haddock sector allocation in 2010 was 812 mt. Collectively, this allocation, combined with the other allocations for this fishery, did not, and has not, resulted in the exceedance of NMFS authorized take of any ESA listed species from 2010 to the present (NMFS 2010 BO for Northeast Multispecies; NMFS 2013 batch BO). The proposed allocations in 2014, albeit higher than the current specs for haddock, are lower than those in 2010. If in 2010, the multispecies fishery did not result in any exceedance of authorized listed species takes and to date, still has not resulted in the exceedance of authorized take, we do not expect the proposed specifications, which are less than those authorized in 2010, to result in the multispecies fishery introducing any new risks or additional takes to ESA listed species that have not already been considered and authorized by NMFS to date (NMFS 2010 BO for Northeast Multispecies; NMFS 2013 batch BO). As a result, we do not expect the proposed specifications under Alternative 2 to result in levels of take that would jeopardize the continued existence of ESA listed species. For these reasons, and due to the fact that this alternative would not provide any new, additional, access to year-round closed areas, and would still require compliance with the Large Whale Take Reduction Plan and sea turtle resuscitation guidelines, Alternative 2 would have negligible to low negative impacts on protected resources.

6.4 HUMAN COMMUNITIES/ECONOMIC/SOCIAL ENVIRONMENT IMPACTS

6.4.1 **Alternative 1 – No Action**

The no action alternative would leave the ABC and ACL specifications for GOM haddock unchanged from those implemented through Framework 51. For a detailed explanation on the current economic impacts from the catch limits for fishing year 2014, see Framework 51 section 7.4.1.3.2. Framework 51 estimated gross groundfish revenues for FY2014 to be just over $55 million and all gross revenues on groundfish trips are predicted to be just under $71 million. On a home-port state level, New Hampshire was expected to have the largest percentage decline (32%) in gross revenues from groundfish relative to FY2012. For major home-ports, Gloucester, MA was expected to have the largest percentage decline (33%) in gross revenue and New Bedford, MA is expected to be the least affected.

The impacts to gross revenues analyzed in 51 predicated that revenues would be distributed non-uniformly across different vessel length categories, with the 30-50 foot category experiencing the largest drop in gross revenue compared to FY2012, with a predicted 35% reduction. Larger

vessel classes are predicted to experience smaller declines in gross revenues, with the largest vessel size class (75+ ft.) predicted to see a 10% decline in gross revenues.

Framework 51 predicted that FY2014 would result in a 21% decline in net revenues relative to FY2012 and a 12% decline relative to predicted net revenues for FY2013. Crew-days, days absent and total sector trips were all predicted to decline substantially relative to FY2012. This represents fewer earning opportunities for crew members, and may signal reductions in incomes for down-stream fishing businesses such as fish dealers, ice houses, gear shops, and shipyards.

Increasing the GOM haddock allocation, as proposed in Alternative 2, could help mitigate some of the losses anticipated in FW 51. The home-port areas that were predicted to have the greatest declines in FW 51 could potentially benefit from an increase in GOM haddock. In addition, smaller day-boat vessels that also target GOM haddock could benefit from a quota increase. However, results from the Quota Change Model (discussed below), indicate that the benefits of increasing the GOM haddock quota may be reduced by limited allocations of other groundfish.

For the reasons explained above, it is likely that Alternative 1 would have a low negative economic impact compared to Alternative 2.

6.4.2 Alternative 2 – Revised Status Determination Criteria and Associated Catch Limits (Preferred Alternative)

The Quota Change Model

The Quota Change Model (QCM) is used to predict the potential impact of changes in quota on the sector-based commercial fishery in past framework actions, including Framework 51, which this document supplements. The QCM is a simulation model that selects trips from existing catch records that are representative of those trips most likely to take place under the new quota conditions. A pool of 100,000 actual trips is selected based on each trip's use of allocated ACE, using fishery-dependent trip-level data from FY2012. The more efficiently a trip used its ACE, the more likely that trip is to be drawn into the pool, and, potentially, the more times that trip will be replicated within the pool. ACE efficiency is determined by the ratio of ACE expended to net revenues on a trip for each of the 16 allocated stocks. Net revenues are calculated as gross revenues minus trip costs minus quota leasing costs, where trip costs are based on observer data and quota leasing costs are estimated from an inter-sector lease value model based on FY2012 (Murphy, et al. 2012). Trips that were particularly ACE-inefficient are not drawn into the pool at all. The model pulls trips from the pool at random, summing the ACE expended for the 16 allocated stocks as trips are drawn. When one stock's ACE reaches the allocated limit, no trips from that broad stock area are selected and the model continues selecting trips until quota limits are achieved in all three broad stock areas or for one of the unit stocks.

By running simulations based on actual trips, the model implicitly assumes that stock conditions existing during the data period are representative, that trips are repeatable, and that price/quantity relationships realized during the data period are applicable to the forecast period (FY2014). Use of existing trip net revenues requires an assumption of constant trip costs and constant quota costs. These assumptions will surely not hold—fisherman will continue to develop their technology and fishing practices to increase their efficiency, market conditions will induce additional behavior changes, and fishery stock conditions are highly dynamic. Fuel and other

costs may change due to larger economic shifts or shoreside industry consolidation. Quota lease prices will certainly increase under more restrictive allocations, though it is impossible to estimate the magnitude of these increases.

In general, the model will under-predict true landings and/or revenues if stock conditions improve, if prices rise in response to lower quantities landed, or if fisherman become more efficient at maximizing the value of their ACE. Conversely, the model will over-predict true landings and/or revenues if stock conditions decline, markets deteriorate or fishing costs increase. The model will over-predict landings if stock conditions for a highly constraining stocks are such that catchability increases substantially and/or fisherman are unable to avoid the stock--in this circumstance, better than expected stock conditions may lead to worse than anticipated fishery performance.

Economic impacts on the sector commercial groundfish fishery

Increasing the annual catch limits for GOM haddock will bring some relief in terms of operational flexibility for commercial groundfish vessels. Increased allocations will reduce the likelihood that GOM haddock would become a constraining stock, which current catch data (see Table 9) indicate may be likely.

Results from the Quota Change Model indicate that economic benefits will be minimal. In fact, the ex-vessel values between the no action and preferred action are essentially equal (Tables 14 and 15), as GOM haddock is not predicted to be a constraining stock. GOM cod, witch flounder, and American plaice are all predicted to be more restrictive stocks, limiting the potential benefits from this Alternative. However, the model utilized trips from FY 2012 when making these predictions, and stock conditions for GOM haddock have improved markedly since that time. Due to the relative improvement in stock conditions, the model is likely biased low and it appears likely that GOM haddock catch will exceed predicted levels.

The model suggests that the largest sized vessels will benefit the most from the quota increase (Table 16) and that ports in Massachusetts will capture the greatest revenue increases (Table 17). Because fishermen may be able to target other stocks in the area, they may be able to take additional fishing trips. Table 18 indicates slight increases in effort and revenue because of the increase in fishing opportunities. These tables are likely to under-estimate the true benefits of this Alternative.

For these reasons, the proposed action would have a low positive economic impact compared to the no action alternative.

Social impacts on the sector commercial groundfish fishery

The primary social benefit from increasing the GOM haddock quota is additional flexibility for fishermen to potential continue fishing operations a bit longer if GOM haddock is not a constraining stock. The additional flexibility, along with a potential revenue increase, would result in a low positive social impact when compared to the no action alternative.

Table 11. Quota Change Model results for status quo (*500 realizations*).

Stock	Quota (lb)	Catch (lb)	Predicted Utilization	Ex-Vessel Value
American plaice	2,996,079	2,633,135	87.89%	$3,898,102
GB cod (east)	319,670	147,809	46.24%	$162,612
GB cod (west)	3,492,118	3,371,845	96.56%	$6,826,809
GOM cod	1,794,561	1,768,930	98.57%	$4,278,114
GB haddock (east)	21,982,266	810,153	3.69%	$1,229,552
GB haddock (west)	41,151,437	1,766,560	4.29%	$2,808,440
GOM haddock	480,607	366,324	76.22%	$780,179
Halibut	0	96,595	0.00%	$146,704
Non-Groundfish	0	21,839,679	0.00%	$15,443,524
Ocean pout	0	76,450	0.00%	$0
Pollock	28,964,298	11,875,889	41.00%	$10,828,286
Acadian redfish	23,197,012	7,437,111	32.06%	$3,719,022
White hake	9,497,503	4,256,847	44.82%	$5,681,696
N windowpane flounder	0	229,564	0.00%	$1
S windowpane flounder	0	232,615	0.00%	$0
GB winter flounder	7,416,342	4,515,525	60.89%	$9,184,419
GOM winter flounder	1,521,849	257,421	16.92%	$536,932
SNE/MA winter flounder	2,134,072	210,593	9.87%	$2,434
Witch flounder	1,324,977	1,300,641	98.16%	$2,465,996
Wolffish	0	44,394	0.00%	$0
CC/GOM Yellowtail flounder	1,029,558	742,248	72.09%	$1,026,189
GB yellowtail flounder	554,462	372,386	67.16%	$577,346
SNE yellowtail flounder	992,079	991,306	99.92%	$1,504,084
TOTAL		**65,344,024**		**$71,100,441**

Table 12. Quota Change Model results for proposed action (preferred alternative)

Stock	Quota (lb)	Catch (lb)	Predicted Utilization	Difference from No Action	Ex-Vessel Value	Change from No Action
American plaice	2,996,079	2,609,872	87.11%	-0.78%	$3,866,598	-$31,504
GB cod (east)	319,670	147,181	46.04%	-0.20%	$160,261	-$2,352
GB cod (west)	3,492,118	3,402,141	97.42%	0.87%	$6,873,220	$46,411
GOM cod	1,794,561	1,772,279	98.76%	0.19%	$4,280,323	$2,209
GB haddock (east)	21,982,266	810,601	3.69%	0.00%	$1,227,319	-$2,232
GB haddock (west)	41,151,437	1,757,326	4.27%	-0.02%	$2,801,814	-$6,626
GOM haddock	952,396	381,027	40.01%	-36.21%	$819,519	$39,340
Halibut	0	96,528	0.00%	0.00%	$147,330	$626
Non-Groundfish	0	21,952,764	0.00%	0.00%	$15,455,409	$11,885
Ocean pout	0	76,925	0.00%	0.00%	$0	$0
Pollock	28,964,298	11,882,822	41.03%	0.02%	$10,851,367	$23,081
Acadian redfish	23,197,012	7,424,050	32.00%	-0.06%	$3,733,663	$14,642
White hake	9,497,503	4,245,667	44.70%	-0.12%	$5,687,758	$6,062
N windowpane flounder	0	228,341	0.00%	0.00%	$1	$0
S windowpane flounder	0	233,161	0.00%	0.00%	$0	$0
GB winter flounder	7,416,342	4,473,023	60.31%	-0.57%	$9,094,014	-$90,405
GOM winter flounder	1,521,849	261,432	17.18%	0.26%	$542,662	$5,730
SNE/MA winter flounder	2,134,072	211,061	9.89%	0.02%	$2,521	$88
Witch flounder	1,324,977	1,298,208	97.98%	-0.18%	$2,455,022	-$10,974
Wolffish	0	44,300	0.00%	0.00%	$0	$0
CC/GOM Yellowtail flounder	1,029,558	748,395	72.69%	0.60%	$1,031,324	$5,135
GB yellowtail flounder	554,462	362,676	65.41%	-1.75%	$567,896	-$9,451
SNE yellowtail flounder	992,079	991,166	99.91%	-0.01%	$1,505,884	$1,800
TOTAL		**65,410,948**			**$71,103,906**	**$3,465**

Table 13. Predicted revenue change by vessel size class from simulation model (*500 realizations*).

Vessel Length	No Action	Proposed Alternative (preferred)	Change from Status Quo
<30'	$454,859.05	$447,191.25	-$7,667.81
30' to <50'	$8,673,131.59	$8,692,448.52	$19,316.93
50' to <75'	$18,130,243.45	$18,126,783.08	-$3,460.37
75'+	$28,232,080.73	$28,306,452.35	$74,371.63

Table 14. Predicted revenue change by port or region from simulation model (*500 realizations*).

	Catch (lbs)			Revenue ($)		
Region	**No Action**	**Proposed Action**	**Percent Change from Status Quo**	**No Action**	**Proposed Action**	**Change from Status Quo**
CT	18,228.49	18,319.09	0.50%	$14,619.28	$14,782.87	$163.59
Other MA	1,796,170.51	1,811,229.43	0.84%	$2,838,689.90	$2,864,046.59	$25,356.70
Boston, MA	8,384,480.53	8,411,354.74	0.32%	$10,875,500.41	$10,918,161.12	$42,660.71
Chatham, MA	503,937.47	516,991.84	2.59%	$833,663.97	$857,200.37	$23,536.40
Gloucester, MA	7,018,251.43	7,025,934.42	0.11%	$8,076,430.56	$8,097,937.08	$21,506.52
New Bedford, MA	10,866,442.04	10,872,885.09	0.06%	$15,513,410.74	$15,547,062.96	$33,652.22
ME	2,787,081.97	2,762,502.28	-0.88%	$3,777,924.98	$3,734,829.36	-$43,095.62
Portland, ME	7,843,813.63	7,799,703.45	-0.56%	$7,648,325.65	$7,635,439.28	-$12,886.37
NH	1,574,727.28	1,569,296.46	-0.34%	$2,106,803.47	$2,097,922.83	-$8,880.64
NJ	93,631.01	94,031.84	0.43%	$148,695.66	$148,931.79	$236.14
NY	446,769.98	452,557.49	1.30%	$740,464.97	$755,827.26	$15,362.29
RI	452,958.66	447,599.04	-1.18%	$687,517.94	$674,602.17	-$12,915.78
Point Judith, RI	1,514,362.16	1,515,728.77	0.09%	$2,054,769.89	$2,057,871.48	$3,101.58
Other Northeast	114,568.70	110,098.31	-3.90%	$184,965.26	$178,241.57	-$6,723.69

Table 15. Comparison of estimated revenues and expenses from simulation model (500 realizations)

No Action										
Estimated	**Gross Revenue**	**Gross Revenue from Groundfish**	**Net Revenue**	**Trip Cost**	**Variable Cost**	**Quota Cost**	**Sector Cost**	**Crew Days**	**Days Absent**	**Number of Trips**
MIN	63.7	50.0	33.1	19.1	31.4	10.8	1.4	20917.6	6892.0	6044.0
MAX	77.5	60.7	40.1	24.1	38.8	13.0	1.7	51722.1	14479.3	7000.0
MEAN	70.9	55.5	36.7	21.7	35.2	12.0	1.6	46852.2	13190.9	6599.8
STD	2.0	1.6	1.0	0.7	1.1	0.4	0.0	1856.6	469.2	147.1

Proposed Action										
Estimated	**Gross Revenue**	**Gross Revenue from Groundfish**	**Net Revenue**	**Trip Cost**	**Variable Cost**	**Quota Cost**	**Sector Cost**	**Crew Days**	**Days Absent**	**Number of Trips**
MIN	65.8	51.5	34.2	19.9	32.5	10.9	1.4	20839.3	6878.2	6177.0
MAX	76.4	60.0	40.1	23.5	38.0	13.1	1.7	50550.2	14127.1	7039.0
MEAN	71.0	55.6	36.8	21.7	35.3	12.0	1.6	46917.6	13198.1	6624.0
STD	1.9	1.5	0.9	0.7	1.1	0.4	0.0	1807.0	455.0	142.3

Economic impacts on the common pool commercial groundfish fishery

As with sectors, Alternative 2 could result in increases in catch for the common pool fishery, which would have low positive economic and social impacts for this component of the fishery.

7.0 CUMULATIVE EFFECTS ANALYSIS

7.1 INTRODUCTION

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 supplemental EA together with past, present, and reasonably foreseeable future actions that affect the groundfish 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.

This CEA assesses the combined impact of the direct and indirect effects of the proposed measures with the impact from the past, present, and reasonably foreseeable future fishing actions, as well as factors external to the multispecies fishery that affect the physical, biological, and socioeconomic resource components of the groundfish environment. This analysis is focused on the VECs (see below) and because this action is supplementing the final Framework 51 EA, it relies heavily and incorporates by reference the analysis contained in the attached final Framework 51 EA.

Valued Ecosystem Components (VECs): As noted in section 5.0 (Affected Environment), the VECs that exist within the groundfish fishery are identified and include the following:

- Target species
- Other species (incidental catch and bycatch);
- Habitat, including non-fishing effects; and
- Endangered and other protected species;
- 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 regulated groundfish stocks, non-groundfish species, habitat and the human environment is primarily focused on actions that have taken place since implementation of the initial NE Multispecies FMP in 1977. 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, rather than foreign fleets. 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 the expected implementation of these emergency measures (November 2014) through November 2015.

Geographic Scope of the VECs
The geographic scope of the analysis of impacts to regulated groundfish stocks, non-groundfish 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 of the document and section 6.0 of the FW 51 EA. However, the analyses of impacts presented in this framework 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 (Section 6.4, Framework 51 EA).

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 the human environment is defined as those primary and secondary ports bordering the range of the groundfish fishery (Section 6.5, Framework 51 EA) 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 (note – the baseline condition consists of the present condition of the VECs plus the combined effects of past, present and reasonably foreseeable future actions); PLUS (3) impacts from the Preferred Alternative and other alternatives.

A description of past, present and reasonably foreseeable future actions is presented for the actions outlined in this supplemental EA. The baseline conditions of the resources and human community are subsequently summarized although it is important to note that beyond the stocks managed under this FMP and protected species, quantitative metrics for the baseline conditions are not available. Finally, a brief summary of the impacts from the alternatives contained in this framework is included. The culmination of all these factors is considered when making the cumulative effects assessment.

7.2 PAST, PRESENT AND REASONABLY FORESEEABLE FUTURE ACTIONS

A summary of the effects of past, present and reasonably foreseeable future actions is presented immediately below. A thorough summary of the primary past, present, and reasonably foreseeable future actions effecting this action can be found in Section 7.6 of the Framework 51

EA (NEFMC 2014), including other previous actions taken in the NE Multispecies FMP. The baseline conditions of the resources and human community are also summarized here, although it is important to note that beyond the stocks managed under this FMP and protected species, quantitative metrics for the baseline conditions are not available. Finally, a brief summary of the impacts from the alternatives contained in this supplemental EA is included. The culmination of all these factors is considered when making the cumulative effects assessment.

Most of the actions affecting this supplemental EA come from fishery-related activities (e.g., Federal fishery management actions). 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 Magnuson-Stevens Act stipulates that 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 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, and impacts from climate change such as changes in water temperature, salinity, dissolved oxygen, and suspended sediment into the marine environment. These activities pose a risk to the all of the identified VECs in the long term. Human induced non-fishing activities that affect the VECs under consideration in this document are those that tend to be concentrated in near shore 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. Wherever these activities co-occur, they are likely to work additively or synergistically to decrease habitat quality and, as such, may indirectly constrain the sustainability of the managed resources, non-target species, and protected resources. Decreased habitat suitability would tend to reduce the tolerance of these VECs to the impacts of fishing effort. Mitigation of this outcome through regulations that would reduce fishing effort could then negatively impact human communities.

Importantly, along with this emergency action, NMFS is issuing an interim action to enhance protection for GOM cod because the stock is in extremely poor condition. Management measures that are included in the GOM cod interim action include closed areas to protect spawning fishing and reduce fishing mortality. While the GOM haddock emergency action would provide additional fishing opportunities for GOM haddock, and therefore potentially additional catch of GOM cod (since these fish stocks comingle), the GOM cod interim action would likely offset any additional impacts from this action on GOM cod. In fact, it is also possible that the GOM cod interim action could offset many of the additional fishing opportunities that would arise from the GOM haddock emergency action. Also, the GOM cod

action will likely result in greater effort restrictions than potential effort increases from this emergency action.

Table 16. Summary effects of past, present and reasonably foreseeable future actions on the VECs (based on actions listed in the Framework 51 CEA, Section 7.6)

Actions	Habitat	Regulated Groundfish Stocks	Non-Groundfish Species	Endangered and other Protected Resources	Human Communities
Past and Present Fishing Actions					
Amendment 13 (2004) – Implemented requirements for stock rebuilding plans and dramatically cut fishing effort on groundfish stocks. Implemented the process for creating sectors and established the GB Cod Hook Gear Sector	L+	H+	+ .	L+ .	Mixed
FW 40A (2004) – allowed additional fishing on GB haddock for sector and non-sector hook gear vessels, created the GB haddock Special Access Pilot Program, and created flexibility by allowing vessels to fish inside and outside the U.S./Canada Area on the same trip	Negl	L-	L-	Negl	+
FW40B (2005) – Allowed Hook Sector members to use GB cod landings caught while using a different gear during the landings history qualification period to count toward the share of GB cod that will be allocated to the sector, revised DAS leasing and transfer programs, modified provisions for the Closed Area II yellowtail flounder SAP, established a DAS credit for vessels standing by an entangled whale, implemented new notification requirements for Category I herring vessels, and removed the net limit for trip gillnet vessels.	Negl to L+	L-	L-	Negl	L+
FW41 (2005) – Allowed for participation in the Hook Gear Haddock SAP by non-sector vessels	Negl	Negl	Negl to L -	Negl	+
FW42 (2006) – Implemented further reductions in fishing effort based upon stock assessment data and stock rebuilding needs, implemented GB Cod Fixed Gear Sector	L+	+	+	L+	Mixed
Atlantic Large Whale Take Reduction Plan	Negl to L-	Negl	Negl	+	L-
Monkfish Fishery Management Plan and Amendment 5 (2011) Implemented ACLs and AMs; set the specifications of DAS and trip limits; and make other adjustments to measures in the Monkfish FMP.	L+	+	+	+	Mixed
Spiny Dogfish Fishery Management Plan	Negl	Negl	+	Negl	L+
Amendment 16 to the Northeast Multispecies FMP (2009) Implemented DAS reductions and gear restrictions for the common pool, approved formation of additional 17 sectors	+	+	+	+	Mixed

Actions	Habitat	Regulated Groundfish Stocks	Non-Groundfish Species	Endangered and other Protected Resources	Human Communities
Skate Fishery Management Plan and Amendment 3 (2010) Amendment 3 implemented final specifications for the 2010 and 2011 FYs, implemented ACLs and AMs, implemented a rebuilding plan for smooth skate and established an ACL and annual catch target for the skate complex, total allowable landings for the skate wing and bait fisheries, seasonal quotas for the bait fishery, new possession limits, in season possession limit triggers.	+	+	+	+	-
FW 44 to the Northeast Multispecies FMP (2010) Set ACLs, established TACs for transboundary U.S./CA stocks, and made adjustments to trip limits/DAS measures	+	+	+	+	Mixed
FW 45 to the Northeast Multispecies FMP (2011) Revised the biological reference points and stock status for pollock, updated ACLs for several stocks for FYs 2011–2012, adjusted the rebuilding program for GB yellowtail flounder, increased scallop vessel access to the Great South Channel Exemption Area, modified the existing dockside and at-sea monitoring requirements, established a GOM Cod Spawning Protection Area, authorized new sectors and adjusted TACs for stocks harvested in the US/ CA area for FY 2011.	L+	L+	L+	L+	Mixed
FW 46 to the Northeast Multispecies FMP (2011) Increased the haddock catch cap for the herring fishery to 1% of the haddock ABC for each stock of haddock.	Negl	Negl	Negl	Negl	L-
Harbor Porpoise Take Reduction Plan (2010) Plan was amended to expand seasonal and temporal requirements within the HPTRP management areas; incorporate additional management areas; and create areas that would be closed to gillnet fisheries if certain levels of harbor porpoise bycatch occurs.	Likely +	Likely +	Likely +	Likely +	Likely -
Scallop Amendment 15 (2011) Implemented ACLs and AMs to prevent overfishing of scallops and yellowtail flounder; addressed excess capacity in the LA scallop fishery; and adjusted several aspects of the overall program to make the Scallop FMP more effective, including making the EFH closed areas consistent under both the scallop and groundfish FMPs for scallop vessels.	Negl	L+	Negl	Negl	L+
Amendment 17 to the Northeast Multispecies FMP This amendment streamlined the administration process whereby NOAA-sponsored, state-operated permit banks can operate in the sector allocation management program	Negl	Negl	Negl	Negl	Negl

Actions	Habitat	Regulated Groundfish Stocks	Non-Groundfish Species	Endangered and other Protected Resources	Human Communities
FW 47 to the Northeast Multispecies FMP (2012) FW 47 measures include revisions to the status determination for winter flounder, revising the rebuilding strategy for GB yellowtail flounder, Measures to adopt ACLs, including relevant sub-ACLs and incidental catch TACs; adopting TACs for U.S/Canada area, as well as modifying management measures for SNE/MA winter flounder, restrictions on catch of yellowtail flounder in GB access areas and accountability measures for certain stocks	Negl	+	+	Negl	-
Secretarial Amendment to Establish Annual Catch Limits and Accountability Measures for the Small-Mesh Multispecies Fishery This amendment established the mechanism for implementing ACLs and AMs.	Negl to L+	Negl	Negl	Negl	Negl to +
Amendment 3 to the Spiny Dogfish FMP This amendment established a research set aside program, updates to EFH definitions, year-end rollover of management measures and revisions to the quota allocation scheme.	Likely Negl	Likely Negl	Likely L+	Likely Negl	Likely L+
Framework 24 to the Atlantic Sea Scallop FMP (Framework 49 to the Northeast Multispecies FMP) This framework set specifications for scallop FY 2013 and 2014. It is also considered measures to refine the management of yellowtail flounder bycatch in the scallop fishery	Likely Negl	Likely Negl to L+	Likely Negl to L+	Likely Negl	Likely - to +
FW 48 to the Northeast Multispecies FMP This FW modified the ACL components for several stocks, adjust AMs for commercial and recreational vessels, modify catch monitoring provisions, and allow sectors to request access to parts of groundfish closed areas.	Mixed	+	+	+	Mixed
FW50 to the Multispecies FMP This FW adopted FY 2013-2015 ACLs and specifications for the U.S./Canada Total Allowable Catches (TACs)	+	+	+	Negl	-
FW 51 to the Multispies FMP This FW adopted FY 2014-2016 specifications and 2014 ACLs for groundfish stocks. It also modified management measures for yellowtail flounder and U.S./CA management Area	Mixed	+	+	Negl	Mixed
Reasonably Foreseeable Future Fishing Actions					
Omnibus Essential Fish Habitat Amendment Phase 2 of the Omnibus EFH Amendment would consider the effects of fishing gear on EFH and move to minimize, mitigate or avoid those impacts that are more than minimal and temporary in nature. Further, Phase 2 would reconsider closures put in place to protect EFH and groundfish mortality in the Northeast Region.	Likely +	Likely +	Likely +	ND	ND
Harbor Porpoise Take Reduction Plan (Potential Future Actions) Future changes to the plan in response to additional information and data about abundance and bycatch rates.	Likely L+	Likely +	Likely +	Likely +	Likely -

Actions	Habitat	Regulated Groundfish Stocks	Non-Groundfish Species	Endangered and other Protected Resources	Human Communities
Framework 25 to the Atlantic Sea Scallop FMP This framework sets specifications for scallop FY 2014 and 2015. It is also considering accountability measures for windowpane flounder stocks.	Likely Negl	Likely Negl to L+	Likely Negl to L+	Likely Negl	Likely - to +
Framework 52 to the Northeast Multispecies FMP This Framework would establish criteria that, if met, would allow for adjustments of northern and southern windowpane flounder accountability measures	Likely Negl	Likely Negl	Likely Negl	Likely Negl	Likely +
Interim Action to Protect GOM Cod This interim action would provide additional protections to further reduce fishing impacts on GOM cod. This action could include area closures to reduce mortality and protect spawning	Likely Negl	Likely +	Likely Negl	Likely Negl	Likely -
Framework 53 to the Northeast Multispecies FMP This framework would establish specifications for FY 2015-2017 and set annual catch limits for FY 2015. It may also include additional management measures to protect GOM cod	Likely +	Likely +	Likely Negl	Likely Negl	Likely Mixed to -

Impact Definitions:
-Groundfish (Target species), Non-Groundfish (other species), Endangered and Other Protected Species: positive=actions that increase stock size and negative=actions that decrease stock size
-Habitat: positive=actions that improve or reduce disturbance of habitat and negative=actions that degrade or increase disturbance of habitat
-Human Communities: positive=actions that increase revenue and well-being of fishermen and/or associated businesses and negative=actions that decrease revenue and well-being of fishermen and/or associated businesses

7.3 BASELINE CONDITIONS FOR RESOURCES AND HUMAN COMMUNITIES

For the purposes of a CEA, the baseline conditions for resources and human communities is considered the present condition of the VECs plus the combined effects of the past, present, and reasonably foreseeable future actions. Table 17 below illustrates the baseline conditions found as part of the final Framework 51 EA cumulative effects analysis. Please refer to the cumulative effects assessment in Section 7.6.3 of the final Framework 51 EA (NEFMC 2014) to review a complete summary of the baseline conditions for each VEC.

Table 17. Summary of Baseline Conditions for each VEC

VEC	Past Actions	Present Actions	Reasonably Foreseeable Future Actions	Combined Effects of Past, Present, Future Actions
Regulated Groundfish Stocks	**Mixed** Combined effects of past actions have decreased effort, improved habitat protection, and implemented rebuilding plans when necessary. However, some stocks remain overfished	**Positive** Current regulations continue to manage for sustainable stocks	**Positive** Future actions are anticipated to continue rebuilding and strive to maintain sustainable stocks	**Short-term Negative** Several stocks are currently overfished, have overfishing occurring, or both **Long-Term Positive** Stocks are being managed to attain rebuilt status
Non-Groundfish Species	**Positive** Combined effects of past actions have decreased effort and improved habitat protection	**Positive** Current regulations continue to manage for sustainable stocks, thus controlling effort on direct and discard/bycatch species	**Positive** Future actions are anticipated to continue rebuilding and target healthy stocks, thus limiting the take of discards/bycatch	**Positive** Continued management of directed stocks will also control incidental catch/bycatch
Endangered and Other Protected Species	**Positive** Combined effects of past fishery actions have reduced effort and thus interactions with protected resources	**Positive** Current regulations continue to control effort, thus reducing opportunities for interactions	**Mixed** Future regulations will likely control effort and thus protected species interactions, but as stocks improve, effort will likely increase, possibly increasing interactions	**Positive** Continued effort controls along with past regulations will likely help stabilize protected species interactions
Habitat	**Mixed** 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	**Mixed** Effort reductions and better control of non-fishing activities have been positive but fishing activities and non-fishing activities continue to reduce habitat quality	**Mixed** Future regulations will likely control effort and thus habitat impacts but as stocks improve, effort will likely increase along with additional non-fishing activities	**Mixed** 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
Human Communities	**Mixed** Fishery resources have supported profitable industries and communities but increasing effort and catch limit controls have curtailed fishing opportunities	**Mixed** Fishery resources continue to support communities but increasing effort and catch limit controls combined with non-fishing impacts such as high fuel costs have had a negative economic impact	**Short-term Negative** As effort controls are maintained or strengthened, economic impacts will be negative **Long-term Positive** As stocks improve, effort will likely increase which would	**Short-term Negative** Revenues would likely decline dramatically in the short term and may remain low until stocks are fully rebuilt **Long-term Positive** Sustainable resources should support viable communities

			have a positive impact	and economies

7.4 SUMMARY OF THE IMPACTS FROM THE PROPOSED ACTIONS

The overall ACLs for GOM haddock (commercial and recreational) are established at levels that are designed to prevent overfishing and the direct and indirect impacts of the proposed action were found to be insignificant.

If the quota limits and catch allocations are increased, increased catches would bring some revenue increases to the fishery. It is difficult to quantify the revenue increase because it is likely that catches of GOM haddock will be restricted by small allocations for choke stocks such as GOM cod and American plaice. Because of this, the economic and social impacts of this action would be negligible to low positive. Because the quota is constrained by its own allocation, as well as the allocation of other stocks it is harvested with, the impacts on regulated groundfish and other fisheries harvested by groundfish vessels is anticipated to be negligible.

Changes in fishing effort in response to the quota increase could increase interaction with protected resources, but impacts would be expected to be negligible or low negatives because the increase, while a large percentage, is relatively small compared to the fishery as a whole. Further, vessels will likely be restrained by other choke species such as GOM cod. The preferred alternative would have negligible impacts on benthic habitats and EFH because it is not creating any effort in previously closed areas and effort will be restricted by quotas.

7.5 SUMMARY OF THE CUMULATIVE EFFECTS

The following analysis summarizes the cumulative effects on the VECs identified in this section through the consideration of past, present, and reasonably foreseeable future actions in combination with the baseline condition for resources and human communities and impacts from the proposed action.

7.5.1 Target and Other Species

As found in the cumulative effects analysis for the final Framework 51 EA (NEFMC 2014), the long-term trend in this fishery has been positive for cumulative impacts to target species. While several groundfish species remain overfished or overfishing is occurring, substantial effort reductions since implementation of the NE Multispecies FMP have allowed several stocks to rebuild and the rebuilding process for others is underway. Thus, the cumulative effect of this action is expected to continue to provide stock growth for GOM haddock, with no anticipated significant impacts. Therefore, the combination of past actions with the proposed action would continue the sustainable harvest of other regulated species and would not be expected to result in any significant cumulative effects.

As previously discussed in section 7.2, increasing the GOM haddock catch limits could potentially increase catch of GOM cod, a stock in very poor condition. However, along with this action, NMFS is concurrently issuing a GOM cod interim action that would provide additional protections to GOM cod. In fact, there is a chance that management measures designed to

protect GOM cod could actually reduce industry's ability to catch GOM haddock. Because of this, we do not expect negative impacts on GOM cod stocks.

7.5.2 **Endangered and Other Protected Species**

Historically, the implementation of FMPs has resulted in reductions in fishing effort and as a result, past fishery management actions are thought to have had a slightly positive impact on strategies to protect protected species by potentially reducing the number of interactions with protected species. However, gear entanglement continues to be a source of injury or mortality, resulting in some adverse effects on most protected species to varying degrees. As summarized in Section 7.6.5 of Framework 51, the current management measures, including those implemented through Amendment 16 and expected to continue to control effort and catch and, as a result, aid in reducing interactions with protected resources. The actions proposed in Framework 51 are expected to continue this trend. As stocks rebuild to sustainable levels, future actions may lead to increased effort, which may increase potential interactions with protected resources in the fishery overall; however, the fishery in any future actions will still be required to comply with management measures developed to reduce interactions with protected resources (e.g., Large Whale Take Reduction Plan, Harbor Porpoise Take Reduction Plan, Bottlenose Dolphin Take Reduction Plan, sea turtle regulations, etc). As a result, the cumulative result this action on mortality objectives, in combination with past, present, and reasonably foreseeable future actions, would not be expected to result in any significant cumulative effects that would jeopardize the continued existence of protected species.

7.5.3 **Habitat Including Non-fishing Effects**

While the impact analysis in this action is focused on direct and indirect impacts to habitat and EFH, there are a number of non-fishing impacts that must be considered when assessing cumulative impacts. Many of these activities are concentrated near-shore and likely work either additively or synergistically to decrease habitat quality. Other non-fishing factors such as climate change and ocean acidification are also thought to play a role in the degradation of habitat. The effects of these actions, combined with impacts resulting from years of commercial fishing activity, have negatively affected habitat and EFH. However, the general trend in fisheries management toward effort reductions, particularly with the implementation of Amendment 16, has yielded positive impacts to habitat and EFH. Based on this rationale, when considered with past, present and reasonably foreseeable future actions, the cumulative impacts from the proposed action would not be significant.

7.5.4 **Human Communities**

Past management actions have had significant negative impacts on communities that depend on the groundfish fishery, particularly as a result of decreases in revenue. Although special programs implemented through Amendment 13 and subsequent framework actions have provided the industry additional opportunities to target healthier groundfish stocks, substantial increases in landings and revenue will likely not take place until further stock rebuilding occurs under the various rebuilding plans implemented for individual stocks in Amendment 16 and Frameworks 50 and 51. Current management measures will maintain effort and catch limit controls, which together with non-fishing impacts such as rising fuel costs have had significant negative short term economic impacts on human communities. The specifications approved in

Framework 51 are expected to have log-term positive impacts to human communities as they promote stock rebuilding, but in the short-term revenues are mixed compared to what would otherwise be expected. Slightly increased ACLs for some stocks could have positive social impacts, however, these may be offset by reductions in ACLs for other stocks and overall greater fishing effort is not likely. Given decreases or generally low catch limits for many key stocks that resulted in a fishery disaster declaration for FY 2013, the overall impact on human communities is expected to be negative as the result of decreased revenue. Framework 51 is expected to result in slightly decreased revenue in the short term that will compound the significant negative economic impact on the fishing industry from past actions, though not beyond levels anticipated in Amendment 16.

The proposed action analyzed in this supplemental EA would be expected to result in an increase in operational flexibility, and therefore, catch in the commercial fishery, which may result in an increase in revenue for associated businesses. By increasing the GOM haddock catch limits, this action would allow fishermen to better target GOM haddock, or other stocks they were previously unable to target due to low GOM haddock quotas. However, these increases may be minimal due to the quota limits of other stocks.

As previously mentioned in section 7.2, along with a GOM haddock emergency action, NMFS is also issuing interim management measures to protect GOM cod, a stock in very poor condition. While the GOM haddock emergency would increase fishermen's operational flexibility and allow for revenue increases, it is possible that the measures proposed in the GOM cod interim action could offset or even further reduce the flexibilities provided to groundfish fishermen by the GOM haddock emergency action. The fishermen that would likely gain the most operational flexibility (and potentially revenue) by the GOM haddock emergency action would be those fishermen that can successfully target GOM haddock and other healthy groundfish stocks with low GOM cod bycatch. Therefore, the cumulative impact of this action in conjunction with other past, present and reasonably future actions may only have a negligible to small beneficial affect compared to the trend of significant negative impacts on communities until additional future stock rebuilding occurs.

8.0 LIST OF PREPARERS AND PERSONS/AGENCIES CONSULTED

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9.0 COMPLIANCE WITH APPLICABLE LAWS AND EXECUTIVE ORDERS

9.1 MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (MAGNUSON-STEVENTS ACT)

Section 301 of the Magnuson-Stevens Act requires that FMPs contain conservation and management measures that are consistent with the ten National Standards. The most recent FMP changes implemented by Amendment 16 address how the proposed management actions comply with the National Standards. Under Amendment 16, the NEFMC adopted conservation and management measures that would end overfishing and rebuild NE multispecies stocks to achieve, on a continuing basis, the optimum yield for NE multispecies stocks and the U.S. fishing industry using the best scientific information available consistent with National Standards 1 and 2. The NE Multispecies FMP and implementing regulations manage all 20 groundfish stocks (13 species) throughout their entire range, as required by National Standard 3. Section 9.1.1 of Amendment 16 describes how the sector measures implemented under that action do not discriminate among residents of different states consistent with National Standard 4, do not have economic allocation as their sole purpose (National Standard 5), account for variations in these fisheries (National Standard 6), avoid unnecessary duplication (National Standard 7), take into account fishing communities (National Standard 8), addresses bycatch in fisheries (National Standard 9), and promote safety at sea (National Standard 10). By proposing to meet the National Standards requirements of the Magnuson-Stevens Act through future FMP amendments and framework actions, the NEFMC will ensure that overfishing is prevented, overfished stocks are rebuilt, and the maximum benefits possible accrue to the ports and communities that depend on these fisheries and the Nation as a whole.

The proposed action would comply with all elements of the Magnuson-Stevens Act, including the National Standards, and the NE Multispecies FMP. This action is being taken to put in place increased catch limits for GOM haddock, consistent with both the FMP and National Standard 1 guidelines (74 FR 3178; January 16, 2009). The final Framework 51 EA and final rule (79 FR 22421; April 22, 2014) did not include the revised status determination criteria and associated catch limits that were derived from the SARC 59 stock assessment.

9.2 ESSENTIAL FISH HABITAT (EFH)

There are no adverse impacts associated with this action, so no EFH assessment or EFH consultation is required, as determined by a Habitat Conservation Division Review (October 22, 2014).

9.3 ENDANGERED SPECIES ACT (ESA)

As outlined in the impacts analysis of Framework 51's EA and in sections 6.3 and 7.4 of this supplement, the fishing activities anticipated to occur under this action are not expected to affect endangered and threatened species or critical habitat in any manner not considered in prior consultations on this fishery.

9.4 MARINE MAMMAL PROTECTION ACT (MMPA)

As outlined in the impacts analysis of Framework 51's EA and in sections 6.2 and 7.4 of this supplement, revising the status determination criteria for GOM haddock and increasing catch limits, have been determined to be consistent with the provisions of the MMPA and would not alter existing measures to protect the species likely to inhabit the management unit of the NE multispecies FMP. For further information on the potential impacts of the proposed management action on marine mammals, see Section 6.3.

9.5 NATIONAL ENVIRONMENTAL POLICY ACT

9.5.1 Finding of No Significant Impact (FONSI)

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. In addition, the Council on Environmental Quality (CEQ) regulations at 40 C.F.R. 1508.27 states 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 no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

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

Response: The proposed action described in the supplemental EA would not jeopardize the sustainability of the target species affected by the action (GOM haddock). This action would adopt catch limits that are consistent with target fishing mortality rates that promote rebuilding and/or sustaining stock sizes

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

Response: The proposed action described in the supplemental EA is not expected to jeopardize the sustainability of any non-target species. Additional stocks incidentally taken when fishing for GOM haddock would be mitigated by mortality controls in place for these species and would be expected to be minimal. The biological impacts of the proposed action are analyzed in Section 6.1.

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

Response: The Preferred Alternatives cannot reasonably be expected to cause substantial damage to the oceans and coastal habitats and/or essential fish habitat. The physical environmental/habitat impacts of the proposed action are analyzed in Section 6.2.

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

Response: The proposed action described in the supplemental EA is not expected to have a substantial adverse impact on public health and safety. Commercial fishing on the open ocean is an activity with some inherent safety risks; however, the measures contained in the proposed action are not expected to fundamentally change how commercial fisheries operate in the Gulf of Maine. As such, no adverse impact beyond those already present in fishing activities is expected by the proposed action.

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

Response: The proposed action cannot be reasonably expected to adversely affect endangered or threatened species. As discussed in Section 6.3, these species are expected to have very minimal impacts from the minor changes in fishing effort that are proposed by this action.

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 described in the supplemental EA is not expected to have a substantial impact on biodiversity and ecosystem function within the Gulf of Maine. The use of ACLs is designed to tightly control catches of target and incidental regulated groundfish stocks. Catches of target and incidental catch species under this program will be consistent with the mortality targets for those stocks established by of Amendment 16 and modified through subsequent frameworks, including Framework 51. The proposed action would not have a substantial impact on predator-prey relationships or biodiversity. This action would have negligible impacts to EFH, because quota limits will restrict any substantial increases in fishing effort. It is, therefore, reasonable to expect that there will not be substantial impact on biodiversity or ecosystem function.

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

Response: The supplemental EA documents that no significant natural or physical effects will result from the implementation of the proposed action. Therfore, there are no significant social or economic impacts interrelated with significant natural or physical environmental impacts. The proposed action is designed to increase the opportunities for vessels to harvest GOM haddock, a healthy stock, while ensuring that overfishing does not occur on GOM haddock or

other target and non-target stocks. As described in Section 6.1, the actions are expected to result in negligible impacts to regulated groundfish and non-target stocks. The action cannot be reasonably expected to have a substantial impact on habitat or protected species (see Sections 6.2 and 6.3), as the impacts are expected to fall within the range of those resulting from Framework 52. The action's potential economic and social impacts are also addressed in the supplemental EA (see Section 6.4).

NMFS has determined that because the potential socio-economic impacts resulting from this action are likely to be slightly positive, there is no need to prepare an EIS. This supplemental EA describes and analyzes the proposed measures and alternatives and concludes there will be no significant impacts to the natural and physical environment. The proposed actions have the potential to increase revenue for fishermen and shore-side businesses. Consequently, because the supplemental EA demonstrates that the action's potential natural and physical impacts are not significant, the execution of a FONSI remains appropriate under Criteria 7.

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

Response: The effects of the proposed actions for the supplemental EA on the quality of human environment are not expected to be highly controversial. The public is aware of the revised status determination criteria and the potential to increase annual catch limits that is based on the best available peer reviewed science. The Council requested in a July 9, 2014, letter that NMFS take emergency action to modify the catch limits and 2014 recreational measures should the findings of SARC 59 support increasing the GOM haddock quota.

NMFS and the Council are obligated under the FMP and National Standard 1 provisions of the Magnuson-Stevens Act to implement measures with a high probability of ensuring catch limits are not exceeded in the overarching effort to prevent overfishing. The proposed action is intended to promote the harvesting of optimum yield while ensuring that catch limits are not exceeded. As such, it is consistent with both the FMP and the Magnuson-Stevens Act requirements. It provides a reasonable probability of being effective at its designed objective of constraining GOM haddock catch. The proposed action is not expected to negatively impact habitat, target and non-target species, protected resources, or the human environment as described in Sections 6.1 through 6.4.

In summary, because the proposed action would represent a quota increase based on the best available science that has been peer reviewed, and is not considered controversial, and additional fishing opportunities for fishermen that would have negligible impacts on the environment while potentially increasing revenues for fishermen and fishing communities, the effects of the actions should not be controversial.

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

Response: No, the proposed action cannot be reasonably expected to result in substantial impacts to unique areas or ecological critical areas. The only designated HAPC in the areas affected by this action is protected by an existing closed area that would not be affected by this action. In addition, vessel operations around the unique historical and cultural resources

encompassed by the Stellwagen Bank National Marine Sanctuary would not likely be altered by this action. As a result, no substantial impacts are expected from this action.

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

Response: The effects of the proposed action described in the supplemental EA on the human environment are not expected to be highly uncertain or involve unique or unknown risks. Vessels fishing for GOM haddock and other groundfish primarily maintain traditional fishing practices which will have no greater impact on habitat, protected species, and limit bycatch species as those conditions existing currently. The measure contemplated in this action is similar to those adopted in past management actions. While there is a degree of uncertainty over how fishermen will react to the proposed measures, as well as how limited quota allocations for other groundfish stocks may hinder the ability for fishermen to capitalize on the increased GOM haddock allocations, the analytic tools used to evaluate the measures attempt to take that uncertainty into account and reflect the likely results as a range of possible outcomes. Overall, the impacts of the proposed action can be, and are, described with a relative amount of certainty. Therefore, the effects on the human environment are not uncertain or involve unique or unknown risks.

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

Response: The cumulative effects analysis presented in Section 7.0 of this supplemental EA considers the impacts of the proposed actions in combination with relevant past, present, and reasonably foreseeable future actions and concludes that no significant cumulative impacts are expected from the increasing the GOM haddock catch limits to allow for increased harvests of GOM haddock. Aside from cumulative economic impacts, none of the cumulative impacts of the preferred alternatives in the final Framework 51 EA or the supplemental proposed action in this supplemental EA are considered significant, and the measures under Amendment 16 are environmentally preferred, Section 7.0 of this document concluded there are no significant cumulative impacts on the natural or physical environment among these related actions. Further, the proposed action would not have any significant impacts to the natural or physical environment when considered individually or in conjunction with any of the other actions presented in Section 7.0 (fishing related and non-fishing related).

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: The proposed action is not likely to affect objects listed in the National Register of Historic Places or cause significant impact to scientific, cultural, or historical resources. The only objects in the fishery area that are listed in the National Register of Historic Places are ship wrecks, including several in the Stellwagen Bank National Marine Sanctuary. The current regulations allow fishing within the Stellwagen Bank National Marine Sanctuary. The Preferred Alternatives would not regulate current fishing practices within the sanctuary. However, vessels

typically avoid fishing near wrecks to avoid tangling gear. Therefore, this action would not result in any adverse effects to wrecks.

13. *Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?*

Response: This action would not result in the introduction or spread of any non-indigenous species, as it would not result in any vessel activity outside of the Northeast region.

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

Response: No, the proposed action is not likely to establish precedent for future actions with significant effects. The proposed action adopts measures that are designed to react to the necessity to harvest optimum yield while preventing overfishing. As such, these measures are designed to address a specific goal (National Standard 1 of the MSA) and are not intended to represent a decision about future management actions that may adopt different measures.

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: The proposed action is not expected to threaten a violation of federal, state, or local law or requirements imposed for the protection of the environment. Vessels fishing in the GOM are required to comply with all local, regional, and national laws and permitting requirements.

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: The proposed action is not expected to result in cumulative adverse effects that could have a substantial effect on target or non-target species. As stated in Section 6.1, impacts on target and non-target stocks are expected to be negligible to low negative.

9.5.2 Determination

In view of the information presented in the Framework 51 EA and this document, the analysis contained in the supporting EA prepared for the modification of GOM haddock status determination criteria, it is hereby determined that these modifications will not significantly impact the quality of the human environment as described above and in the supporting EA. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement (EIS) for this action is not necessary.

10/31/14

John K. Bullard
Regional Administrator,
Greater Atlantic Regional Fisheries Office, NMFS

Date

9.6 ADMINISTRATIVE PROCEDURE ACT (APA)

Section 553 of the Administrative Procedure Act establishes procedural requirements applicable to informal rulemaking by Federal agencies. The purpose of these requirements is to ensure public access to the Federal rulemaking process, and to give the public adequate notice and opportunity for comment. For the rulemaking that will implement the revised GOM haddock catch specifications, pursuant to 5 U.S.C. 553(b)(3)(B) and (d)(3), there is good cause to waive prior notice and opportunity for public comment; as well as the delayed effectiveness for this action, because prior notice and comment, and a delayed effectiveness, would be impracticable and contrary to the public interest.

This action relieves a restriction by raising potentially constraining catch limits. Delay in the implementation of this action could result in the cessation of fishing by sector vessels and/or implementation of inseason restrictions for vessels fishing in the common pool, if the current, unrevised low catch levels are reached. The revised scientific information upon which the revised GOM haddock annual catch limits are based became available only recently. The time necessary to provide for prior notice, opportunity for public comment, and delayed effectiveness for this action may prevent some vessels from targeting GOM haddock, or could severely curtail fishing operations if the current annual catch limit is reached prior to implementation of the revised, larger catch limit. A swift implementation of the revised catch limits will minimize the chances a negative economic impacts resulting from the current size of the GOM haddock catch limit.

9.7 PAPERWORK REDUCTION ACT (PRA)

The purpose of the PRA is to control and, to the extent possible, minimize the paperwork burden for individuals, small businesses, nonprofit institutions, and other persons resulting from the collection of information by, or for, the Federal Government. This action contains no new information collection requirements and, as such, no review under the PRA is necessary.

9.8 COASTAL ZONE MANAGEMENT ACT (CZMA)

Section 307(c)(1) of the CZMA requires that all Federal activities which affect any coastal use or resource be consistent with approved state coastal zone management programs (CZMP) to the maximum extent practicable. NMFS has reviewed the relevant enforceable policies of each coastal state in the NE region for this action and has determined that this action is incremental and repetitive, without any cumulative effects, and is consistent to the maximum extent practicable with the enforceable policies of the CZMP of the following states: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Pennsylvania, Maryland, Virginia, and North Carolina. NMFS finds this action to be consistent with the enforceable policies to manage, preserve, and protect the coastal natural resources, including fish and wildlife, and to provide recreational opportunities through public access to waters off the coastal areas. Pursuant to the general consistency determination provision codified at 15 CFR 930.36(c), NMFS sent a general consistency determination applying to the current NE Multispecies FMP, and all routine Federal actions carried out in accordance with the FMP, to the following states: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Pennsylvania, Maryland, Virginia, and North Carolina on October 21, 2009. North Carolina, Rhode Island, Virginia, Connecticut, New

Hampshire, New Jersey, Delaware, and Pennsylvania have concurred with the general consistency determination. Consistency was inferred for those states that did not respond.

9.9 INFORMATION QUALITY ACT (IQA)

Pursuant to NOAA guidelines implementing Section 515 of Public Law 106-554 (the Data Quality Act), all information products released to the public must first undergo a Pre-Dissemination Review to ensure and maximize the quality, objectivity, utility, and integrity of the information (including statistical information) disseminated by or for federal agencies. The following section addresses these requirements.

Utility

The information presented in this document is helpful to the intended users (the affected public) by presenting a clear description of the purpose and need of the proposed action, the measures proposed, and the impacts of those measures. A discussion of the reasons for selecting the proposed action is included so that intended users may have a full understanding of the proposed action and its implications.

Integrity

Prior to dissemination, information associated with this action, independent of the specific intended distribution mechanism, is safeguarded from improper access, modification, or destruction, to a degree commensurate with the risk and magnitude of harm that could result from the loss, misuse, or unauthorized access to or modification of such information. All electronic information disseminated by NMFS adheres to the standards set out in Appendix III, "Security of Automated Information Resources," of OMB Circular A-130; the Computer Security Act; and the Government Information Security Act. All confidential information (e.g., dealer purchase reports) is safeguarded pursuant to the Privacy Act; Titles 13, 15, and 22 of the United States Code (confidentiality of census, business, and financial information); the Confidentiality of Statistics provisions of the Magnuson Act; and NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics.

Objectivity

For the purposes of the Pre-Dissemination Review, this supplemental EA is considered to be a "Natural Resource Plan." Accordingly, the document adheres to the published standards of the Magnuson-Stevens Act; the Operational Guidelines, Fishery Management Plan Process; the EFH Guidelines; the National Standard Guidelines; and NOAA Administrative Order 216-6, Environmental Review Procedures for Implementing the NEPA.

The catch levels established for FY 2014 are based on assessments conducted by experts and specialists familiar with the core data sets, life history of the species, population dynamics, and statistical modeling as well as having extensive knowledge of the fishery. As such, the information used to develop the catch levels, of which a component is set aside as a recreational-specific amount, represents the best available, most recent information for the GOM cod and haddock populations.

Clear distinctions have been drawn between policy choices and the supporting science upon which they are based. Supporting materials, information, data and analyses used for the recreational management measures action are properly referenced. Many of these supporting documents are readily available on the Council or GARFO web sites. All supporting materials, information, data, and analyses within this document have been, to the maximum extent practicable, properly referenced according to commonly accepted standards for scientific literature to ensure transparency.

The review process for development of this action and associated documents involves staff from the Council, NMFS, Center, and NMFS headquarters. The Center's technical review is conducted by senior level scientists with specialties in fisheries ecology, population dynamics, and biology, as well as economics and social anthropology. Review by GARFO is conducted by those with expertise in fisheries management and policy, habitat conservation, protected resources, and compliance with the applicable law. Final approval of the documents and clearance of the rule is conducted by staff at NMFS Headquarters, the Department of Commerce, and the U.S. Office of Management and Budget.

10.0 LITERATURE CITED

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