

8.5 IMPACTS ON OTHER FISHERIES

This section discusses the impacts of the Proposed Action on other fisheries (lobster and mackerel). Unless otherwise discussed below, impacts of the Proposed Action on these fisheries are relatively indirect and addressed in a more qualitative sense in this analysis. The exception to this is the impacts of the proposed limited access program on participants in the Atlantic mackerel fishery, which are addressed in more detail below.

In addition, the “no action” alternative for each of the management measures proposed in this amendment maintains status quo conditions in the herring fishery and would not be expected to have any additional impact on other fisheries. The no action alternative, as well as the non-preferred alternatives and independent management measures, are discussed in Section 5.1 of this document.

8.5.1 Impacts of the Proposed Action on the American Lobster Fishery

The Council recognizes the importance of Atlantic herring to the American lobster fishery. The American lobster fishery is described in Section 7.5.2 of this document (p. 457). It is assumed that about 60-70% of herring that is landed in any given fishing year supplies the market for lobster bait, primarily in the State of Maine. As a result, many lobster fishermen are extremely dependent on the Atlantic herring fishery and have direct ties to herring processors and dealers in the region, particularly those in the State of Maine.

A description of bait processors and dealers can be found in Section 7.4.1.4.3 of this document. Moreover, many communities in the State of Maine that are significantly dependent on the lobster fishery (and consequently the herring fishery) would be impacted by changes in the supply of lobster bait. Some of these communities are isolated geographically, with the majority of residents dependent on the lobster fishery (Vinalhaven, for example). A complete description of these communities can be found in Appendix XI of this document (Volume II).

Clearly, the issue of most concern to the lobster fishery is the consistent supply of herring for bait. This need is particularly acute during the summer months at the height of lobster season. Any measure that would disrupt this flow/access could have significant impacts on participants in the lobster fishery – and secondary and tertiary stakeholders that are dependent on them (such as families, lobster dealers, and restaurants). The demand for bait may have increased since Amendment 5 and 7 to the Multispecies Fishery Management Plan that reduced access to groundfishing. Particularly in Maine, former gillnetters turned to lobster fishing as a more viable alternative.

In general, the Proposed Action as well as most of the non-preferred management alternatives are not likely to substantially alter the supply of herring for lobster bait and/or result in any significant impacts on the lobster fishery. This is because none of the measures in this amendment change the total removals from the fishery, i.e., the overall amount of herring that can be landed and supplied to the lobster bait market. The limited access provisions are not likely to have a significant impact because there should be an adequate number of vessels with limited access permits to supply the market under the proposed qualification criteria.

While herring that is utilized for lobster bait could come from any of the management areas, lobster fishermen in Maine prefer fresh bait and have consequently increased their reliance on herring from Area 1A. Therefore, there could be some impacts associated with the proposed purse seine/fixed gear only area, which includes all of Area 1A where most lobster bait comes from at this time. The Proposed Action may limit the number of vessels fishing for herring in Area 1A during the peak season of demand (summer) such that the supply of bait could be affected. Currently, there are only about five purse seine vessels in the herring fishery. However, if there is enough financial incentive to do so, some midwater trawl vessels may re-rig to purse seining in order to fish in Area 1A during the summer months and supply the lobster bait market. Moreover, lobster fishermen would likely seek alternative bait if the supply of herring is inconsistent or if herring is not available for bait at some time. While alternative baits may not be preferable, it is likely that fishermen would utilize them in order to remain fishing during the peak season. There may be costs associated with utilizing alternative baits. Moreover, the price for herring could increase if supply is disrupted considerably. The extent to which this will occur and the associated impacts cannot be predicted at this time.

8.5.2 Impacts of the Proposed Action on the Atlantic Mackerel Fishery

The following analysis focuses on the impacts of the proposed limited access program and associated permits on the mackerel fishery. The proposed purse seine/fixed gear-only area is not expected to result in any impacts on the mackerel fishery because: (1) the mackerel fishery is predominantly a winter fishery (December – April), and the proposed gear restricted area is from June – September; (2) the mackerel fishery occurs primarily in southern New England and the Mid-Atlantic areas (Areas 2 and 3), and the proposed gear restricted area is in the inshore Gulf of Maine; and (3) a greater proportion of mackerel fishery participants will have access to Area 1 during the remainder of the fishing year (see discussion below).

The mackerel and herring fishery often overlap, and efforts have been made by the Council to take the needs of participants in this fishery into account. The limited access provisions contained in the Proposed Action affect participants in the mackerel fishery if they do not qualify for a limited access permit to fish for herring. The overlap between the two fisheries would make it very difficult for a mackerel vessel to fish for mackerel without catching any herring incidentally. There would obviously be costs associated with prohibiting non-limited access vessels from possessing and/or landing any herring when they are fishing for mackerel. The following analysis specifically addresses the impacts of the alternatives on participants in the mackerel fishery.

VTR data were queried for trips where vessels reported catching mackerel and herring for the years between 1995 and 2004. Catches of less than one metric ton (2,200 pounds) of either species were removed from the dataset. Table 156 shows the annual catches of both herring and mackerel from trips where both species were reported to be caught in quantities greater than 1 mt. The total number of trips where both species were caught is also included. No determination was made regarding which species was being targeted on these trips. The average, minimum, and maximum catch amounts for both Atlantic herring and mackerel are shown. Table 157 summarizes activity in the Atlantic mackerel fishery from 1995-2004 based on VTR data.

In general, mixed trips reporting a significant amount of both herring and mackerel did not represent a significant component of either fishery from 1995-2004. The percent of mackerel trips without mixed catches remained above 90% in seven of the ten years. In three of the ten years considered, 12, 13 and 15% of the trips included a mix of herring. Ninety seven of the 393 mixed trips between 1995 and 2004 were comprised of 75% or more of Atlantic herring. Eighty six trips had between 40-60% herring,

meaning that more than 20% of the total number of trips had about a 50-50 split in the catch composition. One hundred and twelve trips had less than 25% herring mixed with the Atlantic mackerel catch.

Table 156 Atlantic Herring and Mackerel Catch Amounts (MT) from Trips where Both Species Were Reported on VTRs, 1995-2004

Year	Herr	Mack	No. Trips	Avg. Herr/Trip	Min/Max Herr/Trip	Avg. Mack/Trip	Min/Max Mack/Trip
1995	603	512	34	18	1 - 75	15	1 - 120
1996	1,839	1,782	60	31	0 - 454	30	1 - 240
1997	1,147	1,487	41	28	0 - 163	36	1 - 251
1998	1,459	2,662	60	24	1 - 133	44	1 - 733
1999	1,432	1,976	36	40	1 - 204	55	1 - 200
2000	1,718	1,864	25	69	2 - 227	75	1 - 400
2001	397	2,366	19	21	1 - 150	125	1 - 240
2002	2,622	2,632	39	67	3 - 234	67	1 - 233
2003	1,823	2,806	52	35	1 - 454	54	1 - 281
2004	1,343	2,942	27	50	1 - 168	109	1 - 281
Total	14,384	21,028	393	37		54	

Table 157 Total Mackerel Catch (MT) and Number of Trips with and without a Mix of Herring

Year	Total Mack	No. Mack Trips	No. Trips w/ Mix	% Trips w/o Mix
1995	17,130	443	34	92
1996	12,674	694	60	91
1997	14,262	594	41	93
1998	14,511	388	60	85
1999	11,328	355	36	90
2000	5,574	202	25	88
2001	9,378	181	19	90
2002	26,569	435	39	91
2003	37,561	397	52	87
2004	59,011	427	27	94

To characterize the impacts of the Proposed Action and other alternatives considered in Amendment 1 on vessels in the Atlantic mackerel fishery, logbook data from 2001 through 2004 were examined to identify recently-active vessels participating in the mackerel fishery. Thirty five (35) vessels were identified which averaged greater than 10 metric tons of mackerel per year over the 2001-2004 period (Table 158).

Table 158 Recently Active (2001-2004) Mackerel Vessels – Unique Count by Limited Access Permit Category

	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Proposed Action
Area 1 (All Areas)	22	23	22	18	15	14	22
Areas 2/3 Only	0	0	1	1	8	12	0
Limited Access Incidental Catch	3	0	0	3	2	4	7
Do not Qualify for Any LA Permit	10	12	12	13	10	5	6
Total Number of Vessels	35						

Note: Mackerel vessels were identified as those that averaged greater than 10 metric tons of mackerel per year from 2001-2004.

While there may be additional vessels landing mackerel during any fishing year, these 35 vessels are the focus of this analysis. The following tables describe how the 35 recently-active mackerel vessels identified in Table 158 may be impacted by the Proposed Action and the alternatives for Amendment 1.

Table 159 describes the recently-active mackerel vessels that qualify for Area 1 (or all herring management areas, depending on the alternative) by herring permit category (herring permit category is provided to indicate which of these mackerel vessels are likely to also be active herring vessels). Average per vessel yearly mackerel landings are provided to indicate relative level of activity in the mackerel fishery. The Proposed Action qualifies 22 mackerel vessels for limited access directed fishery permits in all areas – second only to Alternative 3, which qualifies 23 vessels. The Proposed Action does not qualify any mackerel vessels for Areas 2&3 only (since most qualify for all areas). Under the Proposed Action, 6 vessels do not qualify for any type of limited access fishery permit (others qualify for a limited access incidental catch permit).

The fewest (5) mackerel vessels qualify for any type of limited access directed fishery permit under Alternative 7. For the other alternatives, the number of non-qualifiers ranges from 10 to 13 vessels. The fewest vessels qualify for Area 1 (or all areas, depending on the alternative) under Alternative 7 (14 vessels). Alternative 7 qualifies the most for Areas 2&3 since it is also the most restrictive, to the identified mackerel vessels, in Area 1. The Proposed Action qualifies the largest number of mackerel vessels (7) for limited access incidental catch permits. The proposed limited access incidental catch permit should mitigate the negative impacts of the limited access directed fishery program on mackerel vessels that may be excluded, and consequently, on the mackerel fishery overall.

As shown in Table 159, the average level of yearly mackerel landings is over 1,300 mt in all the alternatives, which indicates that these qualifying mackerel vessels are dependent on mackerel and – since they qualified for Area 1 – herring.

Information on mackerel vessels which qualify for Areas 2 and 3 only is provided in Table 160. Under the Proposed Action, no additional mackerel vessels qualify for limited access directed fishery permits for Areas 2/3 only since all qualify for all management areas. Again, the Proposed Action minimizes impacts on the mackerel fishery by providing a substantial proportion of mackerel vessels with access to the limited access directed herring fishery in all management areas.

Table 161 describes the vessels which do not qualify for limited access directed fishery permits. The Proposed Action results in 13 of the recently-active mackerel vessels not qualifying for a limited access directed fishery permit. As indicated in Table 161, the average mackerel landings of these non-qualifiers is low, on average (less than 300 mt for all alternatives except Alternative 5). This indicates that these vessels are not highly dependent on Atlantic herring or mackerel at this time. The largest number of limited access directed permit non-qualifiers would occur under Alternative 5 (16 vessels). The fewest (9) would occur under Alternative 7.

Table 162 describes the mackerel vessels which only qualify for limited access incidental catch permits. The Proposed Action has the highest number of qualifiers for this permit and helps to minimize the negative impacts of the limited access directed fishery program on the mackerel fishery. The average yearly mackerel landings indicates that these vessels are not highly dependent on mackerel (or on herring, since they didn't qualify for limited access directed fishery permits).

Table 163 reports information for the recently-active mackerel vessels that do not qualify for any limited access herring permit. Alternative 7 would result in the fewest (5 vessels) that do not qualify; the Proposed Action does not qualify six recently-active mackerel vessels, and the other alternatives do not qualify 10 to 13 vessels. Alternative 5 does not qualify some vessels that have high mackerel landings, particularly the eight Category 1 vessels which have average yearly mackerel landings of 1,009 mt.

Table 159 Recently Active (2001-2004) Mackerel Vessels that Qualify for Area 1 (or All Management Areas) by Alternative

HERRING PERMIT CATEGORY		Alternative 3	Alternatives 2 & 4	Alternative 5	Alternative 6	Alternative 7	Proposed Action
1	Number of mackerel vessels	22	21	17	14	12	21
2	Number of mackerel vessels	1	1	1	1	2	1
ALL VESSELS	Number of mackerel vessels	23	22	18	15	14	22
	Average 01-04 mackerel MT	1,729	1,799	1,849	1,451	1,386	1,872

Note: Mackerel vessels were identified as those that averaged greater than 10 metric tons of mackerel per year from 2001-2004.

Table 160 Recently Active (2001-2004) Mackerel Vessels That Qualify for Area 2/3 Only by Alternative

HERRING PERMIT CATEGORY		Alternatives 2 & 3	Alternatives 4 & 5	Alternative 6	Alternative 7	Proposed Action
ALL VESSELS	Number of mackerel vessels	0	1	8	12	0
	Average 01-04 mackerel MT	0	C	2,249	1,897	0

Note: The 21 mackerel vessels that qualify for Area 1 under the Proposed Action also qualify for directed fishery permits for Area 2/3 under the Proposed Action. There are no additional mackerel vessels that qualify only for Areas 2/3 under the Proposed Action.

Note: Mackerel vessels were identified as those that averaged greater than 10 metric tons of mackerel per year from 2001-2004.

Table 161 Recently Active (2001-2004) Mackerel Vessels That Do Not Qualify for Limited Access Directed Fishery Permit by Alternative

HERRING PERMIT CATEGORY		Alternative 2	Alternative 5	Alternative 3, 4 and 6	Alternative 7	Proposed Action
1	Number of mackerel vessels	6	9	5	3	6
	Average 01-04 mackerel MT	454	917	507	149	187
2	Number of mackerel vessels	7	7	7	6	7
	Average 01-04 mackerel MT	71	71	71	31	71
ALL VESSELS	Number of mackerel vessels	13	16	12	9	13
	Average 01-04 mackerel MT	248	547	253	70	125

Note: Mackerel vessels were identified as those that averaged greater than 10 metric tons of mackerel per year from 2001-2004.

Table 162 Recently Active (2001-2004) Mackerel Vessels That Qualify for Limited Access Incidental Catch Permits Only by Alternative

HERRING PERMIT CATEGORY		Alternatives 2 & 5	Alternatives 3 & 4	Alternatives 6 & 7	Proposed Action
ALL VESSELS	Number of mackerel vessels	3	0	2	7
	Average 01-04 mackerel MT	85	0	C	146

Note: Mackerel vessels were identified as those that averaged greater than 10 metric tons of mackerel per year from 2001-2004.

Table 163 Recently Active (2001-2004) Mackerel Vessels That Do Not Qualify for Limited Access Directed or Incidental Catch Permits Under the Proposed Action

HERRING PERMIT CATEGORY		<i>Alternatives 2 & 6</i>	<i>Alternatives 3 & 4</i>	<i>Alternative 5</i>	<i>Alternative 7</i>	<i>Proposed Action</i>
1	Number of mackerel vessels	5	5	8	1	2
	Average 01-04 mackerel MT	507	507	1,009	C	C
2	Number of mackerel vessels	5	7	5	4	4
	Average 01-04 mackerel MT	85	71	85	C	C
ALL VESSELS	Number of mackerel vessels	10	12	13	5	6
	Average 01-04 mackerel MT	296	253	653	46	99

Note: Mackerel vessels were identified as those that averaged greater than 10 metric tons of mackerel per year from 2001-2004.

8.5.3 Impacts of Other Proposed Management Measures on Other Fisheries

VMS Requirements and Vessel Upgrade Restrictions (Sections 4.1.4.3 and 4.1.4.2 respectively)

VMS Requirements – This measure is not likely to have any direct or significant effects on other fisheries. If the VMS requirements in Amendment 1 produce a greater number of vessels participating in other fisheries that use VMS, there may be marginal benefits.

Vessel Upgrade Restrictions – This measure is not likely to have any direct or significant effects on other fisheries, although it may restrict vessels that also participate in the Atlantic mackerel fishery.

Open-Access Incidental Catch Permit and Possession Limit (Section 4.2)

The open-access incidental catch permit may benefit participants in other fisheries who do not qualify for a limited access permit. Examples of these vessels include those fishing in Small Mesh Areas 1 and 2 primarily for a combination of herring and whiting. Benefits to this measure include the likelihood of a reduction in regulatory discards. This measure also could maintain greater flexibility for the small boat fleet by not forcing them to discard any herring that they catch incidentally in other small mesh fisheries.

Adjustments to Management Area Boundaries (Section 4.3)

This measure relates specifically to management areas for the Atlantic herring fishery and should not have any direct or significant impacts on other fisheries. The impacts of any changes to the TACs within the herring management areas will be evaluated accordingly during the herring fishery specification process.

Proposed MSY Proxy (Section 4.5)

This measure relates to the long-term harvest of Atlantic herring and should not have any direct or significant impacts on other fisheries.

Measures to Determine the Distribution of TACs (Section 4.6)

This measure relates to the amount of Atlantic herring allocated for removals from each management area and should not have any direct or significant impacts on other fisheries. However, if the TAC for a management area that overlaps with the mackerel fishery (Area 2, for example) is reached early in the fishing season, there could be impacts on vessels that continue to pursue mackerel in the area. If the TAC for Area 1A is reached earlier in the fishing year than expected, there could be impacts on the supply of lobster bait and consequently on the lobster fishery. Presumably, the seasonal split in Area 1A and the ASMFC days out provisions will continue to minimize the risk of an early closure in Area 1A. A limited access program in Area 1 also should help minimize the risk of an early closure in Area 1A. These factors should be considered when determining the distribution of area-specific TACs during the herring fishery specification process.

Adjustments to the Timing of the Specification Process (Section 4.7)

This measure is primarily administrative in nature and is not likely to have any direct or significant effects on other fisheries.

Research Set-Aside Process (Section 4.8)

This measure relates to promoting and supporting the continued collection of scientific and fishery data related to Atlantic herring and should not have any direct or significant impacts on other fisheries.

Measures to Address Fixed Gear Fisheries (Section 4.9)

This measure relates to opportunities for fixed gear fisheries for herring and therefore should not have any direct or significant impacts on other fisheries.

Measures to Address Bycatch (Section 4.10)

Measures to address bycatch were separated from Amendment 1 and submitted in February 2006 as Framework 43 to the Northeast Multispecies FMP. The Framework 43 document should be referenced for additional information and analyses of impacts.

Measures to Modify the Regulatory Definition of Midwater Trawl Gear (Section 4.11)

This measure will affect vessels fishing with midwater trawl gear in the Atlantic mackerel and other fisheries. The regulatory definition of midwater trawl gear is not specific to the Atlantic herring fishery, and unless the Council specifies the gear for the herring fishery only in Amendment 1, all vessels using midwater trawl gear in all Northeast Region fisheries, will be required to comply with the gear definition established in this amendment.

Additional Measures That Can Be Implemented Through a Framework Adjustment to the Herring FMP (Section 4.12)

This action simply identifies management measures that can be implemented through a framework adjustment to the Herring FMP in the future, or the fishery specification process in some cases, whichever is most expeditious. The action proposed in this amendment relative to the measures that can be implemented through a framework adjustment is not expected to produce any impacts. Impacts

associated with specific measures that may be implemented in the future through this process will be analyzed in accordance with applicable law as part of the framework adjustment and/or specification process.

8.6 ENFORCEMENT ANALYSIS

The following assessment of enforcement issues related to the Amendment 1 alternatives and measures under consideration was provided by NOAA Fisheries Office of Law Enforcement (NOAA OLE) for inclusion in the Amendment 1 DSEIS. Only those alternatives/measures under consideration with enforcement-related issues/concerns are discussed in this section.

8.6.1 Introduction

NOAA OLE recommends that in reviewing and analyzing any fishery management proposal(s) consideration should be given to the general law enforcement precepts that were developed and submitted previously to the NEFMC.

What is generally not enforceable:

Manpower intensive regulations – trip limits, bycatch percentages, meat counts – Given the amount of agents, the amount of vessels and the amount of coastline and ports on the East Coast, manpower intensive regulations result in less than adequate enforcement coverage.

Complex or convoluted regulations - multiple gear, exemptions, exceptions, running clocks – As stated above, simple and clear cut regulations minimizes confusion within industry and allows enforcement to be more effective.

Lack of accountability - marine resources that become “legal” merely by doctoring the records. Without traceable accountability in terms of labeling and recording requirements through the wholesale process, fraudulent reports become easier to construct.

Finally, any new plan or regulation must take into consideration the potential increase of resource needs by NMFS enforcement and the Coast Guard.

8.6.2 Specific Comments on Amendment 1 Alternatives/Measures

No Action Alternative

There are currently no new enforcement issues of concern with the status quo alternatives.

Alternative 1

Similar to the No Action Alternative, there are no new enforcement issues of concern.

Alternative 2 Limited Access Program

Increased investigative resources may be required as a result of fraudulent documentation submitted for qualification of a Limited Access Directed Fishery Permit.

Area-based alternatives are currently enforced through the use of VMS. Consistent with our Enforcement Precepts to simplify areas, large areas with straight boundary lines are preferred.