

PUBLIC HEARING DOCUMENT

for

AMENDMENT 5

to the

Fishery Management Plan (FMP)

for

Atlantic Herring



Prepared by the

New England Fishery Management Council

Amendment 5 Public Hearing Schedule

The New England Fishery Management Council (NEFMC) is conducting public hearings to solicit comments on Draft Amendment 5 to the Atlantic Herring Fishery Management Plan (FMP). These hearings are being scheduled in accordance with the Magnuson-Stevens Fishery Conservation and Management Act. Following these hearings, additional opportunities for review and comment on Amendment 5 and Draft Environmental Impact Statement (DEIS) may be provided by the National Marine Fisheries Service (NMFS) in accordance with the National Environmental Policy Act.

Date, City, and Time	Location
Friday, March 2, 2012 Rockport, Maine 9:00 am – 1:00 pm	Samoset Hotel 220 Warrenton Street, Rockport, ME 04856 Phone: (207) 594-2511
Wednesday, March 14, 2012 Gloucester, MA 7:00 – 9:00 pm	MA DMF Annisquam River Station 30 Emerson Avenue, Gloucester, MA 01930 Phone: (978) 282-0308
Thursday, March 15, 2012 Portsmouth, NH 7:00 – 9:00 pm	Sheraton Harborside Hotel 250 Market Street, Portsmouth, NH 03801 Phone: (603) 431-2300
Monday, March 19, 2012 Fairhaven, MA 7:00 – 9:00 pm	Seaport Inn 110 Middle Street, Fairhaven, MA 02719 Phone: (508) 997-1281
Wednesday, March 21, 2012 Portland, Maine 7:00 – 9:00 pm	Holiday Inn By the Bay 88 Spring Street, Portland, ME 04101 Phone: (207) 775-2311
Tuesday, March 27, 2012 Plymouth, Massachusetts 7:00 – 9:00 pm	Radisson Hotel Plymouth Harbor 180 Water Street, Plymouth MA 02360 Phone: (508) 747-4900
Wednesday, March 28, 2012 Warwick, RI 7:00 – 9:00 pm	Hilton Garden Inn One Thurber Street, Warwick, RI 02886 Phone: (401) 734-9600
Thursday, March 29, 2012 Cape May, New Jersey 7:00 – 9:00 pm	Congress Hall Hotel 251 Beach Avenue, Cape May, NJ 08204 Phone: (609) 884-8421

New England Council staff will brief the public on the herring amendment prior to opening the hearing for public comments. The NEFMC Draft Amendment 5 document and this public hearing document are available on the Council's website (www.nefmc.org/herring/index.html), or may be obtained by contacting the Council office at (978) 465-0492.

Written comments on Draft Amendment 5 must be received on or before 5 p.m. EST, Monday, April 9, 2012. Comments may be sent to Paul J. Howard, Executive Director, 50 Water Street, Mill #2, Newburyport, MA 01950 or emailed to comments@nefmc.org (Attention/Subject Line: "Comments on Draft Amendment 5").

Directions to the above public hearings are available by contacting the Council Office.

AMENDMENT 5 TO THE HERRING FMP: PUBLIC HEARING DOCUMENT

Why is the Council developing Amendment 5?

The need for the Council to develop Amendment 5 to the Atlantic Herring Fishery Management Plan (FMP) arose shortly after the development of Amendment 1 to the Herring FMP, which included a limited access program for the herring fishery and established a seasonal purse seine/fixed gear area in the inshore Gulf of Maine, along with implementing other measures to address the long-term management of the fishery. Since the implementation of Amendments 1, 2, and 4, concerns about the fishery have led the Council to determine that additional action is warranted to further address issues related to the long-term health of the herring resource, how the resource is harvested, how catch/bycatch in the fishery are accounted for, and the important role of herring as a forage fish in the Northeast region. These concerns are reflected in the unprecedented level of interest in managing this fishery by New England's commercial and recreational fishermen, eco-tourism and shoreside businesses, and the general public. The primary purpose of this amendment, therefore, is to improve catch monitoring and ensure compliance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

Another purpose of the amendment is to implement measures to improve the long term monitoring of catch in the Atlantic herring fishery. Additionally, a purpose of this amendment is to specifically address river herring bycatch, while ensuring that the amendment is consistent with the provisions of the MSA, including the National Standard to minimize bycatch and bycatch mortality to the extent practicable.

What is the timeline for completing Amendment 5?

The Council is conducting public hearings during March 2012 to solicit comments on the management measures under consideration in Amendment 5 to the Herring FMP. The Council will be accepting public comments on the Draft Amendment 5 document through April 9, 2012. This document summarizes the management measures under consideration as well as the expected impacts of the measures. The larger, more comprehensive Draft Amendment document, including the Draft Environmental Impact Statement (DEIS) and all supporting information and analysis, is available from the Council's website (www.nefmc.org/herring).

The DEIS for Amendment 5 is currently under review by the National Marine Fisheries Service (NMFS) for consistency with the National Environmental Policy Act (NEPA). Once this document is approved by NMFS and published for review, NMFS will commence an additional 45-day comment period on Draft Amendment 5 and its DEIS. Any significant differences between the Council's Draft Amendment 5 document and the Draft EIS will be identified for the public.

***What is the
timeline for
completing
Amendment 5?
(continued)***

When selecting final management measures for inclusion in Amendment 5, the Council will review and consider *all* public comments – those received during the Council’s public hearings as well as any additional comments received during the 45-day comment period on the Amendment 5 DEIS. The Council will also consider comments and recommendations from its Herring Committee, Herring Advisory Panel, and Herring Plan Development Team. Final decisions regarding Amendment 5 cannot be made by the Council until the 45-day comment period on the DEIS has ended and all comments can be summarized/reviewed by the Council.

This approach allows additional time for the public to review and comment on the measures under consideration and the draft Amendment 5 document. While it remains unclear at this time when the 45-day comment period on the Amendment 5 DEIS will begin, it is assumed that the Council will not be able to select final management measures at its April 24-26, 2012 meeting. However, there will likely be time scheduled at the April Council meeting to review/discuss comments received during the Council’s public hearings. There may also be a public hearing on the DEIS in conjunction with the April Council meeting, if this meeting falls within the 45-day comment period.

Adequate time must be provided for the public to review the document and provide comments, and for the Council to review the comments and consider final action. Currently, it is anticipated that the Council will select final management measures for Amendment 5 at its June 19-21, 2012 meeting in Portland, ME. If this occurs, the final Amendment 5 document will be submitted to NMFS during July/August 2012, and the approved management measures will become effective as quickly as the rulemaking process allows. The Council intends for Amendment 5 to be implemented as close to the start of the 2013 fishing year as possible (January 1, 2013).

***How can
interested parties
comment on the
measures
proposed in
Amendment 5?***

The Council has scheduled eight public hearings for Amendment 5, which are listed on the back of the cover page for this document. The public hearings are being held for Amendment 5 based on the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). You may attend any of the public hearings to submit comments for the record.

You may also submit comments on Draft Amendment 5 by email to comments@nefmc.org (Attention/Subject Line: Herring Amendment 5 Comments).

Public comments on Draft Amendment 5 will be accepted by the Council through 5:00 p.m. EST on April 9, 2012.

Written comments should be submitted to:

Mr. Paul Howard
New England Fishery Management Council
50 Water Street
Newburyport, MA 01950
(978) 465-0492

The Draft Environmental Impact Statement (DEIS) for Amendment 5 is still under review and pending approval from NMFS. Once the Draft EIS is approved, NMFS will move forward with a 45-day comment period, consistent with the requirements of the National Environmental Policy Act (NEPA). The Draft EIS and its contents are not expected to be significantly different from the Council's current draft Amendment 5 document; further revisions are being made to ensure compliance with NEPA and other applicable law, but the management measures under consideration, background information, and analysis are expected to be consistent with the Council's document and this public hearing document.

Once both opportunities for public comment are complete (Council MSA public hearings and 45-day comment period on the Draft EIS), the Council will review all public comments and select final management measures to be submitted in Amendment 5. Decision-making by the Council will occur at either the April or June 2012 Council Meetings, depending on when the Draft EIS is approved and when the 45-day comment period ends. This process is intended to keep Amendment 5 moving forward as expeditiously as possible and provides even more opportunity for review/comment on the measures under consideration and their analyses.

***What are the
Goals and
Objectives of
Amendment 5?***

The Council intends for the management measures proposed in Amendment 5 to address one or more of the following goals/objectives:

GOAL

To develop an amendment to the Herring FMP to improve catch monitoring and ensure compliance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA)

OBJECTIVES

- I.** To implement measures to improve the long-term monitoring of catch (landings and bycatch) in the herring fishery;
- II.** To implement other management measures as necessary to ensure compliance with the MSA;
- III.** To implement management measures to address bycatch in the Atlantic herring fishery;
- IV.** In the context of Objectives I-III (above), to consider the health of the herring resource and the important role of herring as a forage fish and a predator fish throughout its range.

***What are the
Goals and
Objectives of the
Amendment 5
catch monitoring
program?***

The Council has identified ***catch monitoring*** as a primary management issue for consideration in Amendment 5 and approved a specific set of goals and objectives for the catch monitoring program. A catch monitoring program for the Atlantic herring fishery that supplements and improves the existing program can take on many forms and include several different approaches; these are reflected in the management options/alternatives under consideration in Amendment 5.

In general, the goals (numbered) and objectives (bulleted) of the catch monitoring program established in Amendment 5 are:

1. **To create a cost effective and administratively feasible program for provision of accurate and timely records of catch of all species caught in the herring fishery;**
 - Review federal notification and reporting requirements for the herring fishery to clarify, streamline, and simplify protocols;
2. **Develop a program providing catch of herring and bycatch species that will foster support by the herring industry and others concerned about accurate accounts of catch and bycatch, i.e., a well-designed, credible program;**
 - Avoid prohibitive and unrealistic demands and requirements for those involved in the fishery, i.e., processors and fishermen using single and paired midwater trawls, bottom trawls, purse seines, weirs, stop seines, and any other gear capable of directing on herring;
 - Improve communication and collaboration with sea herring vessels and processors to promote constructive dialogue, trust, better understanding of bycatch issues, and ways to reduce discards;
 - Eliminate reliance on self-reported catch estimates;
3. **Design a robust program for adaptive management decisions;**
4. **Determine if at-sea sampling provides bycatch estimates similar to dockside monitoring estimates;**
 - Assure at-sea sampling of at-sea processors' catches is at least equal to shoreside sampling;
 - Reconcile differences in federal and states' protocols for dockside sampling, and implement consistent dockside protocols to increase sample size and enhance trip sampling resolution.

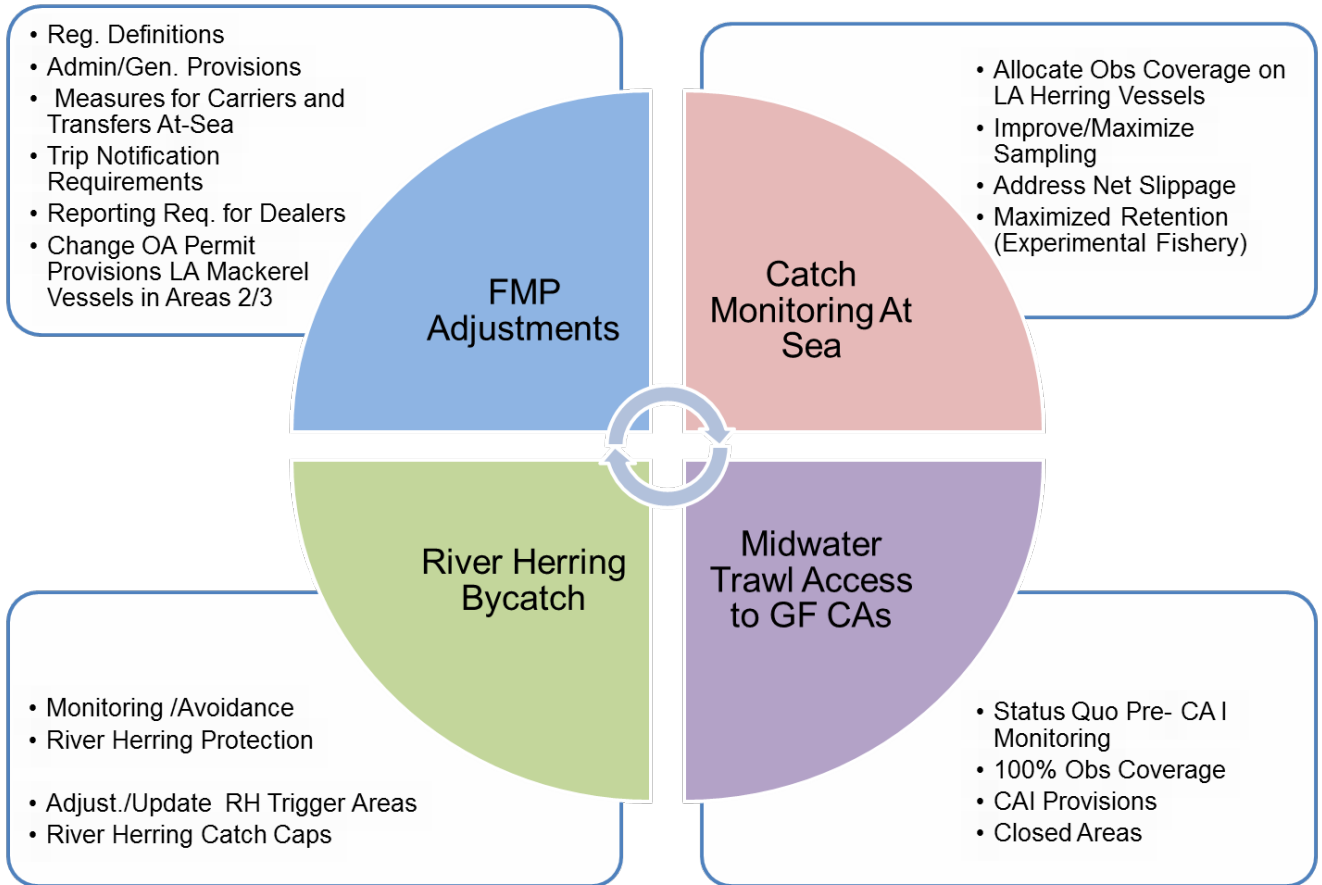
What management measures are under consideration in Amendment 5?

The management alternatives/options under consideration in Amendment 5 to the Atlantic Herring FMP can be grouped into four major “categories”: (1) Proposed Adjustments to the Fishery Management Program; (2) Measures to Address Catch Monitoring At-Sea; (3) Management Measures to Address River Herring Bycatch; and (4) Management Measures to Address Midwater Trawl Access to Groundfish Closed Areas.

The figure below illustrates the range of management measures under consideration in Amendment 5 and their related subcategories (various options under consideration). Each management measure “category” is connected with a color in the figure below, and these colors are carried forward through this public hearing document to assist in understanding the alternatives and their relationship to the larger “categories.”

The Council is seeking public comment on all management alternatives/options under consideration in Amendment 5, which are described in detail in the following pages of this public hearing document.

Illustration of Management Measures Under Consideration in Amendment 5



**Which
management
measures may
apply to you?**

The Council is seeking your comments and recommendations regarding which herring vessel permit categories should be subject to the management measures implemented in Amendment 5.

- **Categories A, B, and C (Limited Access):** In general, the Council intends for the major elements of the catch monitoring program proposed in this amendment to apply to the limited access herring fishery, i.e., the 100 or so Category A/B/C vessels that catch more than 99% of Atlantic herring in a given year. However, because Category A/B boats catch the vast majority of herring (about 97-98%), the Council may evaluate costs and benefits associated with some of the measures when determining whether or not Category C vessels will be subject to *all* of the requirements of the catch monitoring program. The Council is seeking your comments regarding this issue.
- **Category D (Open Access):** While Category D vessels (open access) are not proposed to be subject to the Amendment 5 catch monitoring program, there are other measures under consideration that could affect these vessels and increase the scope of the impacts of this amendment. For example, the Council is considering an option that would require Category D vessels to adhere to the management measures established in this amendment to address river herring bycatch and is seeking your comments on this issue.

**Number of Vessels by Atlantic Herring Permit Category
2008-2010**

Herring Permit Category		Year		
		2008	2009	2010
	A	45	45	42
	B	5	4	4
	C	58	55	55
	D	2,409	2,394	2,258

Source: NMFS Permit databases, May 2011

The following table summarizes the management measures under consideration in Amendment 5, to which vessel categories they may apply, and the options that the Council is considering for determining the permit categories to which the measures may apply.

Herring Permit Holders that May Be Subject to Amendment 5 Measures

Proposed Measures/Alternatives	Category A/B (LA Directed)	Category C (LA Incidental)	Category D (Open Access)
Section 3.1 – Adjustments to Fishery Management Program			
Regulatory Definitions	✓	✓	✓
Administrative/General Provisions	✓	✓	✓
Measures to Address Carrier Vessels	Apply to all carrier vessels regardless of permit category		
Transfer At-Sea Option 2 (A and B Only)	✓	Prohibited	Prohibited
Transfer At-Sea Option 3 (Herring-permitted vessels only)	✓	✓	✓
Trip Notification Requirements (pre-trip and pre-landing)	✓	✓	Only D vessels that use MWT gear and/or qualify for new OA permit for Areas 2/3*
Dealer Reporting Requirements	N/A	N/A	N/A
Changes to OA Provisions for Limited Access Mackerel Vessels in Areas 2/3	N/A	N/A	✓
Section 3.2.1 – Alternatives to Allocate Observer Coverage on LA Vessels			
• Alternative 2 – 100% Coverage	✓	Option Under Consideration/TBD	N/A
• Alternative 3 – SBRM Coverage as Minimum	✓	Option Under Consideration/TBD	N/A
• Alternative 4 – Coverage based on Council Targets	✓	Option Under Consideration/TBD	N/A
Additional Measures to Improve Sampling At-Sea	✓	Option Under Consideration/TBD	N/A
Section 3.2.3 – Measures to Address Net Slippage			
• Option 2 – Released Catch Affidavit	✓	Option Under Consideration/TBD	N/A
• Option 3 – Closed Area I Sampling Provisions	✓	Option Under Consideration/TBD	N/A
• Option 4 – Catch Deduction and Possible Trip Termination	✓	Option Under Consideration/TBD	N/A
MR Experimental Fishery	✓	Option Under Consideration/TBD	N/A
Section 3.3 – Measures to Address River Herring Bycatch			
Alternative 2 – Monitoring/Avoidance Options: -100% Observer coverage -CAI Sampling -Trigger-Based Monitoring -Two-phase bycatch avoidance	✓	Option Under Consideration/TBD	Option to include all D permit holders
Alternative 3 – Protection Options -Closed Areas -Trigger-Based Closed Areas	✓	Option Under Consideration/TBD	Option to include all D permit holders
Section 3.4 – Measures to Address Midwater Trawl Access to Groundfish Closed Areas	Applies to all vessels fishing with midwater trawl gear, regardless of permit category		

**Management
Measures:
FMP
Adjustments**

Regulatory Definitions (Transfer at Sea and Offload)

Section 3.1.1 of Draft Amendment 5 – p. 16

The Council is considering establishing regulatory definitions for *transfer-at-sea* and *offload* specifically for the Atlantic herring fishery and is seeking your comments on the proposed definitions.

A. No Action Option

If no action is taken regarding this measure, no new regulatory definitions would be established in Amendment 5 for the Atlantic herring fishery (although some existing definitions may be revised to reflect consistency with other measures in this amendment).

B. Proposed Regulatory Definitions

Under this option, Amendment 5 would establish a regulatory definition of *transfer at sea* and a regulatory definition of *offload* for the purposes of the Atlantic herring fishery to clarify provisions related to each vessel engaged in transfer operations and to clarify reporting provisions.

This measure would define a herring transfer at sea as: *a transfer from an Atlantic herring vessel (i.e. in the vessel hold or on deck), codend, purse seine to another vessel for personal use as bait, to an Atlantic herring carrier or at-sea processor, or to another permitted herring vessel. Two vessels hauling one codend is pair trawling and is not considered a transfer at sea.*

This measure would also modify the definition of *offload* to add the following:

For the purposes of the Atlantic herring fishery, an offload or offloading means to remove, begin to remove, to pass over the rail, or otherwise take fish away from any vessel for sale to either a permitted At-sea Atlantic Herring dealer (as defined in the options proposed in the Amendment 5 document) or a permitted land-based Atlantic herring dealer.

**Management
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(continued)**

Administrative/General Provisions

Section 3.1.2 of Draft Amendment 5 – p. 16

The Council is seeking your comments on the proposed administrative/general provisions under consideration in Amendment 5. These provisions are intended to help create a cost-effective and administratively-feasible management program to develop accurate and timely records of catch of all species caught in the Atlantic herring fishery and to enhance the catch monitoring to ensure that management can be timely, efficient, and adaptive.

A. No Action Option

Under the no action option, no changes would be made to the current provisions regarding vessels working cooperatively in herring fishing operations, VMS provisions, or reporting through vessel trip reports (VTRs).

The regulations at §648.204(b) state that both vessels involved in a pair trawl operation must be issued the herring permit appropriate for the amount of herring jointly possessed by both of the vessels participating in the pair trawl operation. This means that the more restrictive possession limit of the vessels participating in a pair trawl operation is the limit of the total amount of herring that the vessels may jointly fish for, possess, or land in any calendar day. For example, if Vessel 1 has a Category A permit, which has no possession limit, and Vessel 2 has a Category C permit, with a possession limit of 55,000 lbs./day, then the vessels are only permitted to jointly fish for, possess, and land 55,000 lbs./day. Under this option, no changes would be made to the current restrictions on vessels working cooperatively in the Atlantic herring fishery.

If no action is taken, the current VMS “power down” provision would not be eliminated for limited access herring vessels. Limited access herring vessels would be able to continue turning off their VMS units when in port.

B. Option: Proposed Administrative/General Provisions

This option would implement the provisions described below – 2A, 2B, and 2C – to clarify possession limits for all vessels working cooperatively in a fishing operation, eliminate the VMS power-down provision for limited access herring vessels, and establish a new permit for herring carriers that sell fish:

2A. Expand Possession Restrictions to All Vessels Working Cooperatively in the Herring Fishery (Include Purse Seine Vessels and Vessels that Transfer Herring At-Sea)

This measure would expand the provisions §648.204(b) to include paired purse seine operations and transfers at sea between vessels. In summary, all vessels working cooperatively in the herring fishery are subject to the most restrictive possession limit associated with any of the vessels.

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2B. Eliminate the VMS “Power Down” Provision for Limited Access Herring Vessels

Under this option, Amendment 5 would prohibit limited access herring vessels (and carrier vessels that utilize VMS) from turning off their VMS units when in port unless specifically authorized by NMFS through a Letter of Exemption, consistent with VMS provisions for the multispecies, scallop, and surf clam/ocean quahog fleet:

- The Northeast Fisheries Regulations allow vessels holding certain permits to turn off their VMS units during periods when the vessel will be out of the water or during extended periods of no fishing activity. The request must be made in advance of the intended exemption period, and a “Letter of Exemption” (LOE) must be issued by NMFS. Vessels may not turn VMS units off until they receive a LOE approval from NMFS.
- **All Vessels.** May request a Letter of Exemption from NMFS if the vessel is expected to be out of the water for more than 72 consecutive hours.

Limited Access Multispecies, Limited Access Scallop and Surfclam/Ocean Quahog Vessels (Proposed to Add Limited Access Herring Vessels). May sign out of the VMS program for a minimum of 30 consecutive days by obtaining a Letter of Exemption from NMFS. The vessel may not engage in any fisheries until the VMS unit is turned back on.

2C. Establish a New At-Sea Herring Dealer Permit

Under this option, Amendment 5 would establish a new Federal At-Sea Herring Dealer permit that would be required for carrier or other vessels that sell Atlantic herring to any entity.

- The definition of “Atlantic Herring Dealer” in Section 648.2 (*Definitions*) would be modified to include carrier vessels that may sell fish.
- This permit would require compliance with federal dealer reporting requirements (Section 648.7) at any time the vessel is in possession of the at-sea dealer permit. A “dealer identifier” would have to be developed for at-sea for the purposes of reporting. Vessels that have both the At-Sea Herring Dealer Permit and a herring fishing permit would be required to fulfill the reporting requirements of both permits while in possession of both permits.

**Management
Measures:
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(continued)**

Measures to Address Carrier Vessels

Section 3.1.3.2 of Draft Amendment 5 – p. 20

In Amendment 5, reporting provisions will be modified to clarify that herring carrier vessels are required to report a NMFS-specified trip identifier (for example, VTR serial number) to the dealer receiving the offload. Carrier vessels acting as dealers would be required to report the NMFS-specified trip identifier from the catcher vessels in their dealer reports. This clarification is intended to improve the reporting of herring transferred at-sea.

Amendment 5 also will eliminate the VTR reporting requirement for herring carrier vessels when they are engaged in carrying activities. Currently, carrier vessels are required to submit VTRs to NMFS, which indicate ‘no catch’ for the days during which they were carrying and the vessel name and permit number of the catcher vessel for which they were carrying fish. All catch is to be reported by and attributed to the vessels harvesting the catch. Eliminating the VTR reporting requirement is intended to help prevent the double counting of landings that may occur if a dealer mistakenly attributes the landings to the carrier vessel and not the harvesting vessel.

In addition to the above clarifications to existing provisions for Atlantic herring carrier vessels, the Council is considering options to provide carrier vessels with more flexibility than the current Letter of Authorization (LOA) for carrying herring currently allows. The Council is seeking your comments on the options described below.

Option 1: No Action (Status Quo for Carrier Vessels)

If the no action option is selected, no additional requirements/provisions for herring carrier vessels would be implemented in Amendment 5 (with the exception of the two provisions/clarifications described in the introductory section above).

Vessels acting as Atlantic herring carriers are required to have a valid Letter of Authorization (LOA) from the Regional Administrator and are not required to report catch via the IVR/VMS reporting system implemented by NMFS in 2011. When herring is transferred to another vessel, the vessel that catches the fish (the catcher vessel) is required to report the catch via the VMS system if it possesses a limited access permit or through the IVR system if it possesses an open access permit (the carrier should not report catch to minimize double counting).

Option 2: Require VMS on Carrier Vessels for Declaration Purposes and Eliminate Seven-Day LOA Enrollment Restriction

In addition, under this option, vessels that want to act as Atlantic herring carriers could obtain a LOA from NMFS to do so for the entire fishing year, but they would also be required to utilize a vessel monitoring system (VMS) and comply with the VMS provisions for limited access herring vessels. Carrier vessels would be required to use their VMS pre-trip declaration to indicate whether or not they will be engaged in herring carrying activity.

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Because carrier vessels would be required to utilize VMS for trip declaration purposes, this option would allow them to engage in other activities while in possession of the herring carrier LOA (versus being restricted to carrying activities only for the minimum seven-day enrollment period). Prior to each fishing trip, the carrier vessels would utilize VMS declarations to indicate what activity they intend to engage in during the trip. If the vessel declares “carrier other,” then it cannot carry Atlantic herring on that fishing trip.

- Herring vessels on standard fishing trips would declare HER-HER for a herring fishing trip, or DOF when not participating in the fishery.
- Carrier vessels that possess the Carrier LOA could declare HER-CAR. These vessels would be subject to the provisions of the LOA and would not be allowed to carry fishing gear or other species on that trip.
- Carrier vessels that possess the Carrier LOA could declare OTH-CAR. These vessels would not be allowed to carry fishing gear or Atlantic herring on that trip.

Option 3: Dual Option for Carriers (VMS or Current LOA)

This option would provide flexibility for herring carriers to choose to either:

- A. Utilize a VMS for declaration, eliminate the minimum seven-day enrollment period for carrying (LOA restriction), and engage in other activities during LOA enrollment (identical to the provisions described in the previous option); or
- B. Maintain the status quo (minimum seven day enrollment period with current LOA restrictions).

Measures to Address Transfers of Atlantic Herring At-Sea

Section 3.1.3.3 of Draft Amendment 5 – p. 22

In Amendment 5, the Council is considering measures to minimize transfers of herring at sea and/or standardize reporting requirements for vessels transferring/receiving Atlantic herring. Options under consideration are described below and are not necessarily independent of each other.

Option 1: No Action

If no action is taken, the current provisions for transferring herring at-sea (status quo) would remain effective (summarized below):

- A vessel that transfers herring at sea to a vessel that receives it for personal use at bait must report all catch via the required reporting system (daily VMS for limited access vessels and weekly IVR for open access vessels) and must report all transfers on the Fishing Vessel Trip Report (VTR).
- A vessel that transfers herring at sea to an authorized carrier vessel must report all catch via the required reporting system (daily VMS for limited access vessels and weekly IVR for open access vessels) and must report all transfers on weekly VTRs. Each time the vessel offloads to the

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carrier vessel is defined as a trip for the purposes of reporting requirements and possession allowances.

- A vessel that transfers herring at sea to an at-sea processor must report all catch via the required reporting system (daily VMS for limited access vessels and weekly IVR for open access vessels) and must report all transfers on weekly VTRs. Each time the vessel offloads to the at-sea processing vessel is defined as a trip for the purposes of the reporting requirements and possession allowances. For each trip, the vessel must submit a VTR and the at-sea processing vessel must submit the detailed dealer report.
- A transfer between two vessels issued valid Atlantic herring permits requires each vessel to submit a VTR, filled out as required by the LOA to transfer herring at sea, as well as a real-time catch report (daily VMS for limited access vessels and weekly IVRs for open access vessels) for the amount of herring each vessel catches.
- The transferring vessel may not fish for, catch, transfer, or possess more herring than allowed by the vessel permit category. Each vessel has the responsibility to record how fish is transferred at sea on their weekly VTR reports.

Option 2: Restrict Transfers At-Sea to Only Vessels with Category A or B Limited Access Herring Permits

This measure would allow only vessels participating in the limited access directed fishery for Atlantic herring (Category A or B permits) to transfer herring at sea.

- Transferring and receiving vessels would be required to possess a limited access Category A or B permit for the herring fishery.
- Herring carrier vessels operating under a Carrier LOA would be exempt from this requirement.

Option 3: Prohibit Transfers At-Sea to Non-Permitted Vessels

This measure would allow only vessels that possess a federal Atlantic herring permit to transfer herring at sea. Non-permitted vessels would be prohibited from receiving herring at-sea, even for personal use as bait.

- Transferring and receiving vessels would be required to possess a Category A, B, C, or D permit for the herring fishery. The Category D permit is an open access permit, so any vessel can obtain this permit, but possession of this permit subjects the vessel to VTR and other reporting requirements.

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Trip Notification Requirements

Section 3.1.4 of Draft Amendment 5 – p. 24

The Council is considering several options (described below) to expand current trip notification requirements in the Atlantic herring fishery and is seeking your comments on the options under consideration. When the Council selects final measures for Amendment 5, either Option 1 (no action), Option 2, or Option 3 could be selected individually, or Options 2 and 3 could be selected in combination with each other.

Option 1: No Action

If the no action option is selected, trip notification requirements for the herring fishery would remain the same upon implementation of Amendment 5. Current notification requirements are described below.

- The current notification requirement for vessels to request an observer at least 72 hours before leaving port applies to all Category A and B vessels fishing on a declared herring trip with midwater trawl or purse seine gear regardless of area fished and Category C and D vessels fishing with midwater trawl gear in Areas 1A, 1B, and/or 3.
- Under the status quo, limited access herring vessels are required to declare a herring trip via VMS prior to leaving port when they participate in the herring fishery.
- Category A and B vessels fishing on a declared herring trip with midwater trawl or purse seine gear regardless of area fished, and Category C vessels fishing with midwater trawl gear in Areas 1A, 1B, and/or 3 are also required to notify NMFS Law Enforcement via VMS of the time and place of offloading at least six hours prior to crossing the VMS demarcation line on their return trip to port (or six hours prior to landing if the vessel does not fish seaward of the demarcation line).
- Category D vessels that do not use midwater trawl gear do not have any trip notification requirements. However, if a Category D vessel possesses a VMS because of other Federal permit requirements, it is recommended that the vessel declare out of fishery (DOF) prior to leaving port when participating in the herring fishery.

**Vessels can provide pre-trip notification for multiple trips at one time.*

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Option 2: Modify and Extend the Pre-Trip Notification Requirements

The following modifications to pre-trip notifications are proposed in this option:

1. ***Modifications to the Pre-Trip Notification System (for Observers):*** This option would require all limited access herring vessels (as well as Category D vessels fishing with midwater trawl gear in Areas 1A, 1B, and/or 3) and all herring carrier vessels to notify the Observer Program through the Pre-Trip Notification System (PTNS) **prior to any trip where the operator may harvest, possess, or land Atlantic herring.**

In order to possess, harvest, or land herring, representatives for Category A, B, and C fishing vessels, as well as Category D vessels fishing with midwater trawl gear in Areas 1A, 1B, and/or 3 must provide notice to NMFS through the PTNS **at least 48 hours** prior to beginning the trip, and must provide information including the vessel name, permit number/permit category, contact person name and contact phone number, date sail, time sail, port of departure, gear type, and area intending to fish (i.e., herring management area, river herring area, closed area, etc., consistent with the management measures ultimately adopted in this amendment), as well as target species (target species will be particularly helpful to try to identify directed herring versus directed mackerel trips). There are several methods available for the pre-trip notification: internet; email; and telephone.

If a vessel has been issued a limited access herring permit, or if the vessel has an open access herring permit and is fishing with midwater trawl gear in Areas 1A, 1B, and/or 3, but does not provide notification to NMFS before beginning the fishing trip, the vessel is prohibited from possessing, harvesting, or landing Atlantic herring on that trip. If a trip is cancelled, a vessel representative must notify NMFS of the cancelled trip, even if the vessel is not selected to carry an observer. All waivers or selection notices for observer coverage will be issued to the vessel by VMS so as to have on-board verification of the waiver or selection.

Category D vessels that may fish under a higher possession limit in Areas 2/3 only (under consideration in the Draft Amendment 5 document) would be subject to the same notification requirements as Category C vessels (described in this section) regardless of gear type used.

**Vessels can provide pre-trip notification for multiple trips at one time.*

2. ***Pre-Trip VMS Declaration:*** This option would also add a gear declaration to the existing pre-trip VMS notifications for all herring fishing vessels using VMS to declare in/out of the herring fishery.

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Option 3: Extend Pre-Landing Notification Requirement

This option would require limited access herring vessels and herring carrier vessels that opt to use VMS (see the Draft Amendment 5 document) to notify NMFS Law Enforcement via VMS of the time and place of offloading at least six hours prior to crossing the VMS demarcation line on their return trip to port (or six hours prior to landing if the vessel does not fish seaward of the demarcation line).

Category D vessels that may fish under a higher possession limit in Areas 2/3 only (under consideration in the Draft Amendment 5 document) would be subject to the same notification requirements as Category C vessels (described in this section) regardless of gear type used.

This option may be implemented as a stand-alone measure or in combination with Option 2 described on the previous page, which proposes to modify and extend the pre-trip notification requirements for limited access herring vessels.

Reporting Requirements for Federally Permitted Herring Dealers

Section 3.1.5 of Draft Amendment 5 – p. 26

In Amendment 5, the Council is considering measures to address reporting requirements for federally permitted Atlantic herring dealers. The Council is seeking your comments on the options under consideration.

Option 1: No Action (Status Quo Dealer Reporting Requirements)

Under this option, reporting requirements for federally permitted Atlantic herring dealers would remain the same. Dealers, including at-sea processors, must submit, for each transaction, an electronic dealer report each week. Reports are due by midnight (Eastern Time) each Tuesday for the week that ended the previous Saturday at midnight. Reports must include the *correct* vessel name and Federal permit number of each vessel that harvested any fish received along with the correct weight units for purchased fish. Dealers must also report the VTR serial number used by each vessel that harvested fish. Dealers are required to submit a report even if there is no activity during a week.

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Reporting Herring Landed by a Carrier Vessel

Dealers must attribute catch to the vessel that harvested the herring, which may not necessarily be the vessel that landed the herring. Vessels acting as herring carriers must obtain the VTR serial number from the catcher vessel. Subsequently, dealers must request the name, permit number, and VTR serial number of the catcher vessel from the carrier vessel, and report the fish as being harvested by the catcher vessel. Dealers should not report landings from a carrier vessel, as it may lead to double counting landings and could lead to trip limit reductions in a particular management area.

Reporting Haddock Landed from Herring Vessels

Dealers, including at-sea processors, that cull or separate all other fish from the herring catch must separate and retain all haddock offloaded from vessels that have a Category A or B permit fishing on a declared herring trip and from vessels that have a Category C or D permit fishing with midwater trawl gear in Areas 1A, 1B, and/or 3. Any haddock may not be sold, purchased, received, traded, bartered, or transferred, and must be retained, after it has been separated from the herring, for at least 12 hours for dealers and processors on land, and for 12 hours after landing on shore by at-sea processors for inspection by law enforcement officials. The dealer or at-sea processor must report all such haddock on the weekly electronic dealer report and must use the appropriate disposition code for the haddock. The weekly dealer report must clearly indicate the vessel name and permit number of the vessels that caught the retained haddock.

Option 2: Require Dealers to Accurately Weigh All Fish

This option would require federally permitted Atlantic herring dealers to accurately weigh all fish.

Option 2 may be selected in combination with any one or more of the sub-options described below.

Sub-Option 2A: This sub-option would require federally permitted Atlantic herring dealers to accurately weigh all fish. If dealers do not sort by species, they would be required to document (annually in dealer applications) how they estimate the relative composition of a mixed catch, to facilitate quota monitoring and cross-checking with other data sources.

Sub-Option 2B: This sub-option would require federally permitted Atlantic herring dealers to accurately weigh all fish. If dealers do not sort by species, they would be required to document (for individual landing submissions) how they estimate the relative composition of a mixed catch, to facilitate quota monitoring and cross-checking with other data sources.

Sub-Option 2C: This sub-option would require federally permitted Atlantic herring dealers to obtain vessel representative confirmation of SAFIS transaction records to minimize data entry errors at the first point of sale. It would require vessel owners/operators to review and validate all catch information reported for their vessels in Fish-on-Line (FOL) on a weekly

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basis, including VMS, VTR, and dealer data. If data issues are noted by the vessel owner/operator they would indicate a data issue and provide comments describing the issue, this would create an issue report to NMFS in FOL. NMFS would follow up on all issue reports to resolve discrepancies by working with vessel operators and dealers to correct data submissions. If no data issues are noted, the vessel's owner/operator would indicate such.

Additionally, NMFS recommends increasing the frequency of VTRs and dealer reports to improve the effectiveness of Sub-Option 2C. VTRs would be required to be submitted within 24 hours of the end of a trip and dealer reports would be required to be submitted within 24 hours of receipt or purchase. These changes would increase the timeliness of reports and would provide data to NMFS for validation sooner than they are available currently. While these changes would not likely have a significant impact on information used in weekly monitoring, they would improve the validation efforts that are currently conducted by NMFS and improve the overall state of data in these fisheries.

**Changes to Open Access Permit Provisions for Limited Access
Mackerel Vessels in Areas 2/3**

Section 3.1.6 of Draft Amendment 5 – p. 28

The Council is considering options to increase the open access possession limit in Areas 2/3 for vessels with limited access permits for Atlantic mackerel that did not qualify for a limited access herring permit.

The limited access program for the Atlantic mackerel fishery was developed by the Mid-Atlantic Council and is based on a multi-tiered approach to a limited access permit structure, with each tier specifying different criteria for limited access qualification. Qualification for different limited access mackerel permits was proposed, in part, to address the overlap between the herring and mackerel fisheries and minimize problems that may result if herring vessels do not receive limited access permits for mackerel.

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The following table describes the anticipated mackerel limited access vessels and the Atlantic herring permits which are held (based on 2010 data). Currently, there are a total of 244 vessels with Herring Category D (open access) permits which are projected to qualify for a Limited Access mackerel permit; however most of these vessels would qualify for a Tier 3 Mackerel permit. While many vessels may qualify, these vessels account for only a small amount of herring catch.

In recent years, about 95% of all Atlantic mackerel landed has been landed by vessels that are expected to qualify for a Tier 1 mackerel limited access permit. Based on the analysis of 2010 data, there are expected to be about two Tier 1 mackerel vessels with a Category D herring permit and three Tier 1 mackerel vessels with no herring permit.

Herring Permits Held by Vessels Expected to Qualify for Mackerel Limited Access Permits

		Herring Permit Category				
		A	B	C	D	None
Mackerel Tier	1	20	0	5	2	3
	2	0	1	5	26	12
	3	3	2	15	216	93

Note: Data are preliminary.

The intent of the options under consideration to address mackerel vessels is to minimize the potential for herring bycatch (regulatory discarding) in the limited access mackerel fishery. The Council is seeking your comments on the following options.

Option 1: No Action

Under this option, no action would be taken in Amendment 5 to address herring/mackerel fishery interactions and concerns about the potential for herring bycatch in the directed mackerel fishery. This option would maintain the status quo with respect to mackerel vessels with an open access herring permit.

- The open access incidental catch permit for herring (Category D) would continue to apply to all management areas.
- Vessels that obtain the open access incidental catch herring permit would continue to be restricted by a possession limit of 3 mt of herring per trip (6,600 pounds) in all management areas and limited to one landing per calendar day up to the 3 mt possession limit.
- When catch is projected to reach 95% of the sub-ACL in a management area and the directed fishery closes, incidental catch in the area would be limited to 2,000 pounds per trip, as it is currently.

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Option 2: Increase the Open Access Possession Limit to 20,000 Pounds in Areas 2/3 for Vessels that also Possess a Federal Limited Access Mackerel Permit

Under this option, two open access permits for herring would be created, one for all management areas and one for mackerel fishery participants in Areas 2/3 only:

1. The current provisions for the Category D permit, including the 3 mt possession limit, reporting requirements, and landings restrictions, would apply to an open access permit for all management areas, as described in the no action option;
2. A new open access incidental catch permit would be created for limited access mackerel fishery participants in Areas 2/3 only that do not have a limited access herring permit; this permit would be associated with a 20,000 pound possession limit for herring; all other provisions currently associated with the current open access Category D permit would apply:
 - Vessels that do not qualify for a limited access herring permit and possess a federal limited access permit for Atlantic mackerel would be eligible for this herring permit.
 - **Vessels that obtain this permit would be restricted to fishing for herring in Areas 2/3 only**, under a possession limit of 20,000 pounds of herring and limited to one landing per calendar day up to the 20,000 pound possession limit.
 - For quota/ACL monitoring purposes, reporting requirements for vessels that possess this permit would be consistent with requirements for limited access Category C vessels.
 - When catch is projected to reach 95% of the sub-ACL in a management area and the directed fishery closes, incidental catch in the area would be limited to 2,000 pounds per trip, as it is currently.

Note: The Council may determine that mackerel limited access permit holders should be treated differently, depending on their level of activity in both the herring and mackerel fisheries and the limited access mackerel permit that they may possess.

Option 3: Increase the Open Access Possession Limit to 10,000 Pounds in Areas 2/3 for Vessels that also Possess a Federal Limited Access Mackerel Permit

This option is identical to Option 2 (above), except that vessels that obtain the new open access incidental catch permit under this option **would be restricted to fishing for herring in Areas 2/3 only**, under a possession limit of 10,000 pounds of herring and limited to one landing per calendar day up to the 10,000 pound possession limit.

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**Alternatives to Allocate Observer Coverage on Limited Access
Herring Vessels**

Section 3.2.1 of Draft Amendment 5 – p. 30

The Council is seeking your comments on several alternatives to allocate observer coverage on limited access herring vessels (proposed Categories A/B/C – Council is seeking comments regarding the limited access permit categories to which these alternatives should apply). In general, each management alternative under consideration includes:

1. Targets/priorities for allocating coverage;
2. Provisions/process for reviewing/allocating/prioritizing coverage;
3. Options for funding observer coverage; and
4. Provisions for utilizing service providers and authorizing waivers in specific circumstances that may prevent deployment of an observer.

Alternative 1: No Action Alternative

The no action alternative represents the status quo for allocating observer coverage on limited access herring vessels. This alternative would allocate observer coverage on limited access herring vessels through the current optimization/allocation process.

**Alternative 2: Require 100% Observer Coverage on Limited
Access Herring Vessels**

Alternative 2 would require at-sea observers on every trip taken by limited access herring vessels unless they are declared out of the herring fishery (through VMS). Options under consideration to address the necessary elements of Alternative 2 are described below.

Priorities for Allocating Sea Days/Target Coverage Levels

Under Alternative 2, the priorities/targets for coverage would be 100% of declared herring trips on limited access Category A, B, and C vessels. (The Council is seeking comments on whether this alternative should apply to Category C vessels.)

Process for Reviewing/Allocating Observer Days

Under Alternative 2, no changes would be made to the current process for reviewing and allocating observer coverage. Additional days to meet the 100% requirement on limited access herring vessels would be funded through other sources (see following options).

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Funding Options

Option 1: No Action

Under this option, no action would be taken in Amendment 5 to generate funds or require specific funding for observer coverage required on limited access herring vessels. It is assumed that Federal funds would be utilized to fully support the administration of the fishery management plan and data collection required through the provisions in this amendment. While observer coverage may be *desired* or *targeted* at a higher rate, realized annual coverage would be based on the allocation of Federal resources and would be subject to prioritization in the face of funding limitations. This option equates to the status quo with respect to funding observer coverage in the limited access herring fishery.

Option 2: Federal and Industry Funds

This option would require that observer coverage on limited access herring vessels be funded by Federal resources, whenever they are available. To the extent that Federal resources are not available to fund observer coverage at levels consistent with the Amendment 5 provisions, limited access herring vessels would be responsible for covering costs associated with contracting service providers for the additional observer coverage.

Provisions for Utilizing Observer Service Providers and Authorizing Waivers

Because Alternative 2 requires 100% observer coverage on limited access herring vessels, provisions would be included that authorize the use of non-government service providers for sea sampling in the event that Federal funds are not sufficient to provide 100% coverage and/or the fishing industry is required to fund some/all of the sea sampling.

Prior to any trip when declared into the herring fishery (declared “HER”), limited access herring vessel owners, operators, and/or representatives would be required to provide notice to NMFS and request an observer through the pre-trip notification system, consistent with the provisions described in the Draft Amendment 5 document. If observer coverage must be procured through an independent service provider, NMFS would notify the vessel owner, operator, and/or representative of the requirement within 24 hours of the vessels’ notification to NMFS of the prospective herring trip. The vessel would be prohibited from fishing for, taking, possessing, or landing any Atlantic herring without carrying an observer for that trip unless the vessel has been issued a waiver. Any requirement to carry an observer on a particular trip may be waived by NMFS. All waivers for observer coverage will be issued to the vessel by VMS so as to have on-board verification of the waiver.

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Observer Service Provider Certification, Approval, Responsibilities

Regulations specifying the use of observer service providers are provided in 50 CFR 648.11(h) and (i) – *Observer service provider approval and responsibilities* and *Observer certification* and would apply to service providers utilized by Atlantic herring vessels for sea sampling if/when federally funded observers cannot be made available. These provisions are consistent with those for service providers in other Federal fisheries in the Northeast region (ex., sea scallops).

****Option Under Consideration: State Agencies as Service Providers for Observer Coverage****

In Amendment 5, the Council is considering an option to authorize State agencies to be service providers for catch monitoring (sea sampling/observer coverage). The Council is seeking your comments on this option.

Option 1: No Action. Under the no action option, States would not be authorized in Amendment 5 as service providers for observer coverage. If a State Agency intends to provide sea sampling services for Atlantic herring vessels, it would apply to NMFS to become an authorized service provider, consistent with the provisions specified in 50 CFR 648.11(h) and (i)– *Observer service provider approval and responsibilities* and *Observer certification*.

Option 2: States Authorized as Service Providers. Under this option, Amendment 5 would authorize all States in the Northeast Region as service providers for sea sampling on limited access Atlantic herring vessels. States would not be required to apply to NMFS for an authorization and comply with the provisions specified in 50 CFR 648.11(h) and (i) – *Observer service provider approval and responsibilities* and *Observer certification*. To ensure data compatibility, States that are authorized as service providers must ensure that data collection standards and methods are consistent with NEFOP standards and methods for the herring fishery.

Issuance of Waivers If/When Observers Cannot be Deployed

In the event that an observer is required for a particular fishing trip but cannot be provided by the NEFOP, NMFS would notify the vessel within 24 hours of the vessel's notification of the prospective herring trip. If this amendment does not require the industry to pay for observer sea days that cannot be funded using Federal resources, then either the vessel would be prohibited from fishing for, taking, possessing, or landing any Atlantic herring without carrying an observer for that trip, or NMFS would issue a waiver for the trip within 24 hours.

As part of the selection of final management measures for Amendment 5, the Council may specify instances and/or identify specific fishing trips that would not be authorized for waivers by NMFS regardless of whether an observer can be deployed. The Council is seeking public comment on this issue.

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If this amendment requires the industry to pay for observer sea days that cannot be funded using Federal resources, the vessel owner/operator/manager would be required to arrange for carrying an observer from one of the service providers approved by NMFS (50 CFR 648.11(h) and (i)).

The owner/operator/manager of a vessel selected to carry an observer must contact the observer service provider and must provide at least 48 hours' notice in advance of the fishing trip for the provider to arrange for observer deployment for the specified herring trip. A list of approved service providers will be published on the NMFS/NEFOP website. If a certified observer cannot be procured within 24 hours of the advanced notification due to the unavailability of an observer, the vessel owner/operator/manager may request a waiver from NMFS/NEFOP from the requirement for observer coverage on that trip, but only if all of the available service providers have been contacted in an attempt to secure observer coverage, and no observer is available. In this case, if a waiver is to be issued by NMFS, consistent with the provisions in this amendment, then it will be issued within 12 hours.

Alternative 3: Require SBRM Observer Coverage Levels as Minimum Levels

This alternative would require that **at a minimum**, the annual levels of observer coverage recommended by the NEFSC's Standardized Bycatch Reporting Methodology (SBRM) analysis be achieved annually for the SBRM fleets identified in this amendment. The process for determining coverage levels using the SBRM methodology is described under the no action alternative. Under Alternative 3, SBRM sea day allocations for "herring fleets" (identified below) would represent minimum requirements for sea days that must be covered during the upcoming year.

SBRM Fleets to Which This Alternative Applies

Based on the Herring PDT's detailed analysis presented in Appendix III (Volume II), the SBRM fleets to which this alternative applies include:

- **New England Midwater Trawl;**
- **Mid-Atlantic Midwater Trawl; and**
- **New England Purse Seine.**

Priorities for Allocating Sea Days/Target Coverage Levels

The priorities for allocating sea days would be based on the current process (no action alternative, Draft Amendment 5 document).

Process for Reviewing/Allocating Observer Days

Under Alternative 3, no changes would be made to the current process for reviewing and allocating observer coverage. As specified in the SBRM Omnibus Amendment, when a shortfall occurs, a prioritized sea day allocation is made. Under Alternative 3, re-prioritizing or shifting the allocation of observer days on SBRM herring fleets would be prohibited by the Council or NMFS during the annual SBRM review/prioritization process.

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Funding Options

The funding options under consideration for Alternative 3 are the same as those for Alternative 2 (see previous alternative).

Option 1: No Action

Option 2: Federal and Industry Funds

Provisions for Utilizing Observer Service Providers and Authorizing Waivers

Under Alternative 3, SBRM observer allocations would be mandated, and shifting days away from the herring fleets during the prioritization process would be prohibited. As a result, additional funding may be necessary to achieve the coverage levels specified by the SBRM, especially if the optimization process limits the amount of Federal resources available to fund sampling at these levels. The Council is therefore considering an option to establish provisions for utilizing service providers in the event that Federal funds are not sufficient. The options to establish provisions for sea sampling service providers under Alternative 3 are the same as those proposed for Alternative 2 (see the Draft Amendment 5 document).

Alternative 4: Allocate Observer Coverage Based on Council-Specified Targets/Priorities

This alternative would require that observer coverage on limited access herring vessels be allocated annually based on the following targets/priorities identified by the New England Fishery Management Council: *a 30% CV on catch estimates for Atlantic herring and haddock, and a 20% CV on catch estimates for river herring (catch = total removals).*

Priorities for Allocating Sea Days/Target Coverage Levels

Under this alternative, allocating observer days on limited access Atlantic herring vessels would be based on a process similar to the SBRM, designed to target 30% CV on catch estimates for Atlantic herring and haddock, and a 20% CV on catch estimates for river herring. These targets differ from the current SBRM performance standards in that: (1) river herring is incorporated as a priority species and a basis for allocating observer coverage; (2) the goal of this alternative is to achieve precision targets for total catch estimates (*retained and discarded* – not just discarded); (3) the precision standard for river herring catch estimates more conservative than the current SBRM standards (20% CV versus 30% CV); and (4) a precision target for haddock is identified separately (versus large-mesh groundfish in the current SBRM).

The Council emphasized the need to be practical when determining an appropriate sampling design for at-sea monitoring, especially given available resources. When designing the sampling program, priority should be given to the species of greatest concern, from a biological perspective. It is acknowledged that all species will be sampled regardless of the priorities, and CVs of 30% or even less may be achieved for many of the other species.

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River herring, haddock, and Atlantic herring have all been identified by the Council as priority species under this alternative.

Process for Reviewing/Allocating Observer Days (Alternative 4)

Option 1 – NEFSC Supplemental SBRM Analysis

Under this option, the NEFSC would prepare a supplemental SBRM analysis to relate SBRM fleets/coverage levels to the limited access herring vessels and evaluate the potential allocation of additional days on these vessels to achieve a 20% CV on river herring catch estimates and a 30% CV on catch estimates for Atlantic herring and haddock. The timing of the supplemental analysis would mirror the annual SBRM prioritization process, and the supplemental analysis/report would be presented to the Council by the NEFSC in conjunction with the annual SBRM Sea Day Analysis and Prioritization.

The NEFSC would utilize approaches similar to those in the SBRM to consider how to effectively increase precision estimates on total river herring catch (kept and discarded) for the herring fleets identified in this alternative. The supplemental report would evaluate CVs for river herring, haddock, and Atlantic herring catch estimates based on the previous year's data, relate the SBRM Sea Day Analysis and SBRM fleets identified in this alternative to the limited access herring vessels, and provide information about the number and distribution of additional observer days to achieve the standards for the limited access herring fleet. The Council would review the additional analysis in the context of prioritizing sea days throughout the region and could evaluate the costs/benefits associated with requiring days above those allocated through the SBRM process to achieve the goals/objectives of the sampling program in this amendment.

The intent of this option is to provide a supplemental process to evaluate the sampling goals and performance standards identified in this amendment without compromising or formally changing the SBRM methodologies or the annual optimization process. This option relies on analyses developed concurrently by the SBRM analysts at the NEFSC and focuses specifically on just the fleets identified in this alternative.

Option 2 – Herring PDT Supplemental Analysis

Under this option, the Herring Plan Development Team (PDT) would prepare a supplemental analysis to relate SBRM fleets/coverage levels to the limited access herring vessels and evaluate the potential allocation of additional days on these vessels to achieve a 20% CV on river herring catch estimates and a 30% CV on catch estimates for Atlantic herring and haddock.

The Herring PDT could utilize different approaches (not just SBRM methods) to evaluate how to effectively increase precision estimates on river herring, haddock, and Atlantic herring catch on limited access herring vessels. The PDT would not be limited to SBRM methodologies under this option. The supplemental Herring PDT Report evaluate CVs for river herring, haddock, and Atlantic herring catch estimates based on the previous

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year's data, relate the SBRM Sea Day Analysis and SBRM fleets identified in this alternative to the limited access herring vessels, provide information about the number and distribution of additional observer days to achieve the standards for the limited access herring fleet, and provide an estimate of the potential costs of those days.

The intent of this option is to provide a supplemental process to evaluate the sampling goals and performance standards identified in this amendment without compromising or formally changing the SBRM methodologies or optimization process. This option requires the Herring PDT to meet annually to develop analyses concurrently while the NEFSC develops the SBRM analyses related to the allocation of sea days across all fisheries in the region. Timing is an important consideration for this option. The intent would be for the timing of the supplemental analysis to mirror the annual SBRM prioritization process; however, the Herring PDT's supplemental analysis/report would benefit from building on the SBRM analysis. The Council would review the additional analysis in the context of prioritizing sea days throughout the region and could evaluate the costs/benefits associated with requiring days above those allocated through the SBRM process to achieve the goals/objectives of the sampling program in this amendment.

Funding Options

The funding options under consideration for Alternative 4 are the same as those for Alternative 2 (see description of Alternative 2).

Option 1: No Action

Option 2: Federal and Industry Funds

Provisions for Utilizing Observer Service Providers and Authorizing Waivers

Under Alternative 4, observer allocations would be based on Council-specified priorities/targets. As a result, additional days may be necessary to achieve the coverage levels desired by the Council, especially after the SBRM optimization process. The Council is therefore considering an option to establish provisions for utilizing service providers in the event that Federal funds are not sufficient. The options to establish provisions for sea sampling service providers under Alternative 3 are the same as those proposed for Alternative 2 (see description of Alternative 2).

Summary of Alternatives Under Consideration

The following table summarizes the alternatives under consideration to allocate observer coverage on limited access herring vessels.

Summary of Alternatives Under Consideration to Allocate Observer Coverage on Limited Access Herring Vessels

ALTERNATIVE	PRIORITIES/ TARGETS FOR ALLOCATING OBSERVER DAYS	PROCESS FOR REVIEWING/ ALLOCATING DAYS	FUNDING	OBSERVER SERVICE PROVIDERS/WAIVERS	ADDITIONAL COMMENTS
ALT 1: NO ACTION	<ul style="list-style-type: none"> • SBRM • CAI and other areas/times required in A5 	<ul style="list-style-type: none"> • No Action (SBRM) 	<ul style="list-style-type: none"> • No Action (Federal, subject to resource limitations and priorities) 	<ul style="list-style-type: none"> • No Action (N/A) 	<ul style="list-style-type: none"> • Final EIS for Amendment 5 will provide update related to SBRM litigation
ALT 2: 100% OBSERVER COVERAGE	<ul style="list-style-type: none"> • 100% of declared herring trips for A/B/C vessels 	<ul style="list-style-type: none"> • No Action • SBRM process plus additional days required on A/B/C vessels 	<ul style="list-style-type: none"> • Option 1: No Action • Option 2: Federal and Industry Funds 	<ul style="list-style-type: none"> • Consistent with scallop/groundfish regs; additional option to consider States as service providers; waivers at discretion of NMFS; Council may specify instances when waivers may/may not be granted 	
ALT 3: REQUIRE SBRM COVERAGE LEVELS AS MINIMUM	<ul style="list-style-type: none"> • SBRM-recommended coverage levels would be mandated as minimum levels – no reprioritizing • CAI and other areas/times required in A5 	<ul style="list-style-type: none"> • No Action (SBRM) 	<ul style="list-style-type: none"> • Same as Alt 2 	<ul style="list-style-type: none"> • Same as Alt 2 	<ul style="list-style-type: none"> • Herring PDT Analysis evaluates the distribution of limited access herring vessels across the current SBRM fleets to identify the fleets to which this alternative applies
ALT 4: ALLOCATE COVERAGE BASED ON COUNCIL TARGETS	<ul style="list-style-type: none"> • 30% CV for haddock/herring and 20% CV on for RH catch estimates for A/B/C vessels • CAI and other areas/times required in A5 	<ul style="list-style-type: none"> • Option 1: Supplemental NEFSC/SBRM Analysis • Option 2: Herring PDT Supplemental Analysis 	<ul style="list-style-type: none"> • Same as Alt 2 	<ul style="list-style-type: none"> • Same as Alt 2 	<ul style="list-style-type: none"> • Herring PDT Analysis provides example of supplemental analysis that can be provided to the Council to determine priorities when allocating observer days on limited access herring vessels

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Management Measures to Improve/Maximize Sampling At-Sea

Section 3.2.2 of Draft Amendment 5 – p. 38

Additional management measures are being considered in Amendment 5 to enhance regulations pertaining to the current at-sea monitoring program. The Council is considering options to maximize the sampling of catch by NMFS-approved observers on board limited access Atlantic herring vessels (proposed Categories A/B/C – Council is seeking comments regarding the limited access permit categories to which these options should apply).

Option 1: No Action

Under the no action option, no additional provisions would be implemented in Amendment 5 to improve/maximize sampling by at-sea observers.

Current regulations for vessels carrying NMFS-approved sea samplers/observers on board (Section 648.11(d)) specify that owners/operators of fishing vessels must:

1. Provide accommodations and food that are equivalent to those provided to the crew.
2. Allow the sea sampler/observer access to and use of the vessel's communications equipment and personnel upon request for the transmission and receipt of messages related to the sea sampler's/observer's duties.
3. Provide true vessel locations, by latitude and longitude, as requested by the observer/sea sampler, and allow the sea sampler/observer access to and use of the vessel's navigation equipment and personnel upon request to determine the vessel's position.
4. Notify the sea sampler/observer in a timely fashion of when fishing operations are to begin and end.
5. Allow for the embarking and debarking of the sea sampler/observer, as specified by the Regional Administrator, ensuring that transfers of observers/sea samplers at sea are accomplished in a safe manner, via small boat or raft, during daylight hours as weather and sea conditions allow, and with the agreement of the sea samplers/ observers involved.
6. Allow the sea sampler/observer free and unobstructed access to the vessel's bridge, working decks, holding bins, weight scales, holds, and any other space used to hold, process, weigh, or store fish.
7. Allow the sea sampler/observer to inspect and copy any the vessel's log, communications log, and records associated with the catch and distribution of fish for that trip.

**Management
Measures:
Catch Monitoring
At-Sea
(continued)**

Option 2: Implement Additional Measures to Improve Sampling

Under this option, the following additional provisions (some or all) would be implemented in Amendment 5 to improve sampling by NMFS-approved observers at-sea:

2A. Requirements for a Safe Sampling Station

Vessel operators would be required to provide at-sea observers with a safe sampling station adjacent to the fish deck— this may include a safety harness (if footing is compromised and grating systems are high above the deck), a safe method to obtain samples, and a storage space for baskets and sampling gear. Vessels must maintain safe conditions on the vessel for the protection of observers including adherence to all U.S. Coast Guard and other applicable rules, regulations, or statutes pertaining to safe operation of the vessel.

2B. Requirements for “Reasonable Assistance”

Vessel operators would be required to provide NMFS-approved observers with reasonable assistance to enable observers to carry out their duties, including but not limited to obtaining samples and sorted discards. “Reasonable assistance” could be defined as:

- Measuring decks, codends, and holding bins;
- Collecting bycatch when requested by the observers; and/or
- Collecting and carrying baskets of fish when requested by observers.

2C. Requirements to Provide Notice

Vessels operators would be required to provide observers notice when pumping may be starting and when to allow sampling of the catch, and when pumping is coming to an end.

2D. Requirements for Trips with Multiple Vessels

When observers are deployed on herring trips involving more than one vessel, observers would be required on any vessel taking on fish wherever/whenever possible.

2E. Communication on Pair Trawl Vessels

In pair trawl operations, additional communication would be required between the boats if fish are being pumped to both vessels with to keep the observer informed of catch.

2F. Visual Access to the Net/Codend

Vessel operators would be required to provide and assist NMFS-approved observers in obtaining visual access to the codend (or purse seine bunt) and any of its contents after pumping has ended, before the pump is removed. On trawl vessels, the codend and any remaining contents should be brought on board after pumping. If this is not possible, the vessel operator would be required to work with the observer to ensure that the observer can see the codend and its contents as clearly as possible. The observer will document this process and what he/she is able to see/sample in the observer log.

**Management
Measures:
Catch Monitoring
At-Sea
(continued)**

Measures to Address Net Slippage

Section 3.2.3 of Draft Amendment 5 – p. 40

In Amendment 5, the Council is considering options to address net slippage on board limited access Atlantic herring vessels and is seeking your comments on these options (proposed Categories A/B/C– Council is seeking comments regarding the limited access permit categories to which these options should apply).

For the purposes of Amendment 5, *slippage* is defined as:

Unobserved catch, i.e., catch that is discarded prior to being observed, sorted, sampled, and/or brought on board the fishing vessel. Slippage can include the release of fish from a codend or seine prior to completion of pumping or the release of an entire catch or bag while the catch is still in the water.

- Fish that cannot be pumped and that remain in the net at the end of pumping operations are considered to be operational discards and not slipped catch. Observer protocols include documenting fish that remain in the net in a discard log before they are released, and existing regulations require vessel operators to assist the observer in this process. Management measures are under consideration in this amendment to address this issue and improve the observers' ability to inspect nets after pumping to document operational discards.
- Discards that occur at-sea after catch brought on board and sorted are also not considered slipped catch.

Option 1: No Action

Under the no action option, no additional provisions would be implemented in Amendment 5 specifically to address net slippage.

Existing sampling requirements for herring vessels in Closed Area I would continue to apply under the no action option. These are based on the November 30, 2010 Rule for the Closed Area I provisions (CFR §648.80) and include (for any trip in CAI with an observer):

- A requirement to pump aboard all fish from the net for inspection and sampling by the observer.
- If the net is released for any of the reasons allowed in the rule, the vessel operator would be required to complete and sign a Released Catch Affidavit providing information about where, when, and why the net was released, as well as a good-faith estimate of the total weight of fish caught on the tow and weight of fish released. The Released Catch Affidavit must be submitted within 48 hours of completion of the fishing trip.

**Management
Measures:
Catch Monitoring
At-Sea
(continued)**

Option 2: Require Released Catch Affidavit for Slippage Events

Under this option, vessel operators would be required to provide additional information about whether a net was partially/fully slipped, the reason for the slippage, and the estimated weight of fish that were released on any trip with slippage events when a NMFS-approved observer is on board.

This option requires that a **Released Catch Affidavit** be created for slippage events on both trawl and purse seine vessels with limited access herring permits on all declared herring trips with a NMFS-approved observer on board, to be signed by vessel operators under penalty of perjury. The Released Catch Affidavit will contain detailed information including (1) the reason for slippage; (2) an estimate of the quantity and species composition of the slipped fish; and (3) the location and time that the slippage event occurred. When an observer is present on the vessel during a slippage event, the event would be fully documented with photographs. Released catch that is identified as Atlantic herring also should be reported as discarded herring through the herring ACL-monitoring program (IVR or VMS) as well as the VTRs.

Option 3: Closed Area I Sampling Provisions

This option would apply management measures similar to those for herring vessel access to Multispecies Closed Area I based on the November 30, 2010 Rule for the Closed Area I provisions (CFR §648.80). The following provisions would apply to limited access herring vessels (all gear types) on declared herring trips in all herring management areas carrying a NMFS-approved observer on board (for any trip with an observer):

- Vessels would be required to pump aboard all fish from the net for inspection and sampling by the NMFS-approved observer. Vessels that do not pump fish would be required to bring all fish aboard the vessel for inspection and sampling by the observer. Unless specific conditions are met (see below), vessels would be prohibited from releasing fish from the net, transferring fish to another vessel that is not carrying a NMFS-approved observer, or otherwise discarding fish at sea, unless the fish have first been brought aboard the vessel and made available for sampling and inspection by the observer.
- Vessels may make short test tows in the area to check the abundance of target and bycatch species without pumping the fish on board if the net is reset without releasing the contents of the test tow. In this circumstance, catch from the test tow would remain in the net and would be available to the observer to sample when the subsequent tow is pumped out.
- Fish that have not been pumped aboard may be released if the vessel operator finds that:
 1. pumping the catch could compromise the safety of the vessel;
 2. mechanical failure precludes bringing some or all of the catch aboard the vessel; or
 3. spiny dogfish have clogged the pump and consequently prevent pumping of the rest of the catch.

**Management Measures:
Catch Monitoring At-Sea
(continued)**

- If the net is released for any of the reasons stated above, the vessel operator would be required to complete and sign a Released Catch Affidavit providing information about where, when, and why the net was released, as well as a good-faith estimate of the total weight of fish caught on the tow and weight of fish released. The Released Catch Affidavit must be submitted within 48 hours of completion of the trip.

Option 4: Catch Deduction (and Possible Trip Termination) for Slippage Events

The Council is considering options for management measures that may apply a deduction against the herring sub-ACL in a management area if a slippage event is observed and/or may require trip termination if multiple slippage events occur in one management area. These options would apply on any trips by limited access herring vessels carrying a NMFS-approved observer on board.

Option4A: Catch Deduction and Possible Trip Termination

Under this option, the following provisions would apply to limited access herring vessels (all gear types) carrying a NMFS-approved observer on board (for any trip with an observer):

For slippage events that occur if the vessel operator finds that (1) pumping the catch could compromise the safety of the vessel or (2) mechanical failure precludes bringing some or all of the catch aboard the vessel:

- It will be assumed that the sea herring not pumped on board will equal 100,000 lbs. of herring, to be counted as part of the catch and against the sub-ACL for that management area. Vessel operators will be responsible for reporting this catch through the quota monitoring mechanism (VMS) and their VTRs, under penalty of perjury. The slipped catch will be identified separately so that the number of slippage events per management area can be tracked and any resulting discrepancies between datasets can be more easily resolved.
- Once ten slippage events are observed in a particular management area, each additional slippage event for reasons specified in (1) and (2) above will cause trip termination and the vessel will be required to return to port.

Option4B: Closed Area I Provisions with Catch Deduction and Possible Trip Termination

This option would apply management measures similar to those for herring vessel access to Multispecies Closed Area I based on the November 30, 2010 Rule for the Closed Area I provisions (CFR §648.80). The following provisions would apply to limited access herring vessels (all gear types) on declared herring trips in all herring management areas carrying a NMFS-approved observer on board (for any trip with an observer):

- Vessels would be required to pump aboard all fish from the net for inspection and sampling by the observer. Vessels that do not pump fish would be required to bring all fish aboard the vessel for inspection and

**Management
Measures:
Catch Monitoring
At-Sea
(continued)**

sampling by the observer. Unless specific conditions are met (see below), vessels would be prohibited from releasing fish from the net, transferring fish to another vessel that is not carrying a NMFS-approved observer, or otherwise discarding fish at sea, unless the fish have first been brought aboard the vessel and made available for sampling and inspection by the observer.

- Vessels may make short test tows in the area to check the abundance of target and bycatch species without pumping the fish on board if the net is reset without releasing the contents of the test tow. In this circumstance, catch from the test tow would remain in the net and would be available to the observer to sample when the subsequent tow is pumped out.
- Fish that have not been pumped aboard may be released if the vessel operator finds that:
 1. pumping the catch could compromise the safety of the vessel;
 2. mechanical failure precludes bringing some or all of the catch aboard the vessel; or
 3. spiny dogfish have clogged the pump and consequently prevent pumping of the rest of the catch.
- If the net is released for any of the reasons stated above, the vessel operator would be required to complete and sign a Released Catch Affidavit providing information about where, when, and why the net was released, as well as a good-faith estimate of the total weight of fish caught on the tow and weight of fish released. The Released Catch Affidavit must be submitted within 48 hours of completion of the trip.

For slippage events that occur if the vessel operator finds that (1) pumping the catch could compromise the safety of the vessel or (2) mechanical failure precludes bringing some or all of the catch aboard the vessel:

- It will be assumed that the sea herring not pumped on board will equal 100,000 lbs. of herring, to be counted as part of the catch and against the sub-ACL for that management area. Vessel operators will be responsible for reporting this catch through the quota monitoring mechanism (IVR or VMS) and their VTRs, under penalty of perjury. The slipped catch will be identified separately so that the number of slippage events per management area can be tracked and any resulting discrepancies between datasets can be more easily resolved.
- Once ten slippage events are observed in a particular management area, each additional slippage event for reasons specified in (1) and (2) above will result in trip termination and the vessel will be required to return to port.

**Management
Measures:
Catch Monitoring
At-Sea
(continued)**

***Option 4C: Closed Area I Provisions with Trip Termination Only
(10 Events)***

Under this option, the following provisions would apply to limited access herring vessels (all gear types) carrying a NMFS-approved observer on board (for any trip with an observer):

- Vessels would be required to pump aboard all fish from the net for inspection and sampling by the observer. Vessels that do not pump fish would be required to bring all fish aboard the vessel for inspection and sampling by the observer. Unless specific conditions are met (see below), vessels would be prohibited from releasing fish from the net, transferring fish to another vessel that is not carrying a NMFS-approved observer, or otherwise discarding fish at sea, unless the fish have first been brought aboard the vessel and made available for sampling and inspection by the observer.
- Vessels may make short test tows in the area to check the abundance of target and bycatch species without pumping the fish on board if the net is reset without releasing the contents of the test tow. In this circumstance, catch from the test tow would remain in the net and would be available to the observer to sample when the subsequent tow is pumped out.
- Fish that have not been pumped aboard may be released if the vessel operator finds that:
 1. pumping the catch could compromise the safety of the vessel;
 2. mechanical failure precludes bringing some or all of the catch aboard the vessel; or
 3. spiny dogfish have clogged the pump and consequently prevent pumping of the rest of the catch.
- If the net is released for any of the reasons stated above, the vessel operator would be required to complete and sign a Released Catch Affidavit providing information about where, when, and why the net was released, as well as a good-faith estimate of the total weight of fish caught on the tow and weight of fish released. The Released Catch Affidavit must be submitted within 48 hours of completion of the trip.
- NMFS would track the number of slippage events observed in each management area. Once ten (10) slippage events occur in any management area, each additional slippage event will result in trip termination and the vessel will be required to return to port.

***Option 4D: Closed Area I Provisions with Trip Termination Only
(5 Events)***

Option 4D is the same as Option 4C (above) except trip termination would result once five (5) slippage events occur in any management area.

**Management
Measures:
Catch Monitoring
At-Sea
(continued)**

Maximized Retention Alternative (Experimental Fishery)

Section 3.2.4 of Draft Amendment 5 – p. 44

The Council is considering an alternative to require maximized retention (MR) of catch through an experimental fishery when NMFS-approved observers are on board Atlantic herring limited access vessels. The Council is seeking your comments regarding whether MR should be explored further as well as any details/provisions of an experimental fishery that may be important to consider.

Alternative 1: No Action

Under the no action alternative, no provisions would be implemented in Amendment 5 to evaluate MR in the herring fishery. Herring vessels would continue to operate under the regulations and possession limits for any fisheries for which they possess permits.

Alternative 2: Evaluate Maximized Retention (MR) Through the Annual Issuance of Exempted Fishing Permits

Under this alternative, the experimental fishery process would be utilized to determine whether MR is appropriate for the Atlantic herring fishery, and if so, which species should be part of the MR program and which FMPs should be amended to allow for long-term implementation of the program.

Under this alternative, for four years following the implementation of Amendment 5, Category A, B, and C Atlantic herring vessels would be issued an Exempted Experimental Fishing Permit (EFP) by the Sustainable Fisheries Division (SFD) at NERO as part of the annual herring permit renewal process. The EFP would provide the regulatory relief necessary to allow the currently non-permitted landings to take place when the vessels are required to comply with MR provisions. Regulations implementing the details of the experimental fishery would address the handling of unwanted/unmarketable catch and provisions regarding the counting and sale of such catch.

During the EFP years (four years), limited access herring vessels would be required to comply with the MR provisions specified in this section on any trip with a NMFS-approved observer on board.

General Provisions

- For the first four years after implementation of Amendment 5, limited access Category A, B, and C vessels would be required to obtain an exempted experimental fishery permit (EFP) to fish for Atlantic herring in any management area(s). Conditions of the EFP include a requirement to retain all species identified for MR on any trip with a NEFOP or NMFS-certified observer on board (discarding would be prohibited on observed trips).
- The EFP would allow the herring vessel to keep all catch of the species identified for the MR program on observed trips only, including catch

**Management
Measures:
Catch Monitoring
At-Sea
(continued)**

above trip limits/quotas for the MR species. The sale of the non-permitted species (and landings above the possession limit/quota) caught by herring limited access vessels for *human consumption* would be prohibited on MR trips. Atlantic herring dealers and processors would also be prohibited from purchasing these fish to be sold for human consumption. This does not apply to sale for use as bait because herring catches that are landed for sale as bait are generally offloaded by pumping the fish from the vessel hold into tanker trucks. It is not possible to require all such landings to be culled and sorted and would be inequitable to make downstream purchasers of such bait legally liable for the presence of these fish in their bait.

- All observed trips in the fishery would become MR trips and would form a “study group” for the fishery. Catch/landings data would be collected and documented by observers, as well as by vessels based on the reporting and monitoring provisions associated with the vessels’ permits and specified in this amendment.
- During Year 3, the Herring PDT would begin to analyze the data collected by observers through the MR program and: evaluate the strengths/weaknesses and costs/benefits of a MR program; determine the need for a long-term MR program in the herring fishery; evaluate the appropriateness of each species selected for MR; and develop recommendations for the Herring Committee/Council regarding future regulatory action. The technical review and ensuing discussion regarding the need for management action would likely be time-consuming and would occur throughout most of the third year of the program as data from the experimental program continued to be collected.
- During Year 4, the Council would receive input from the herring industry and advisors and would review the Herring PDT’s recommendations to determine whether or not a long-term MR program should be established for the Atlantic herring fishery. The experimental fishery for MR and the EFP requirements and provisions would expire after four years regardless of the determination. Other catch monitoring and reporting requirements implemented in this amendment would continue to be effective.
- If the Council supports a long-term MR program, then development of the corresponding management actions would begin during Year 4 of the experimental fishery program with the intention of implementing the program as soon as all regulatory mechanisms are in place. This includes an amendment to the Herring FMP to design the program and implement the specific requirements as well as amendments to all other relevant species FMPs in the Northeast Region (NEFMC, MAFMC, and ASMFC) to authorize the catch/landing of the species in the herring fishery (including allowances for landings above possession limits and/or quotas).

**Management
Measures:
Catch Monitoring
At-Sea
(continued)**

Options for Exemptions to Maximized Retention Provisions

If the MR alternative is adopted and the experimental fishery is conducted, there may be instances that a vessel cannot pump all fish aboard. The Council could consider incorporating exemptions into the EFP provisions that allow a vessel to release some catch under certain circumstances, and possibly with specific consequences. Any or all of the following provisions could be incorporated into the EFP for maximized retention:

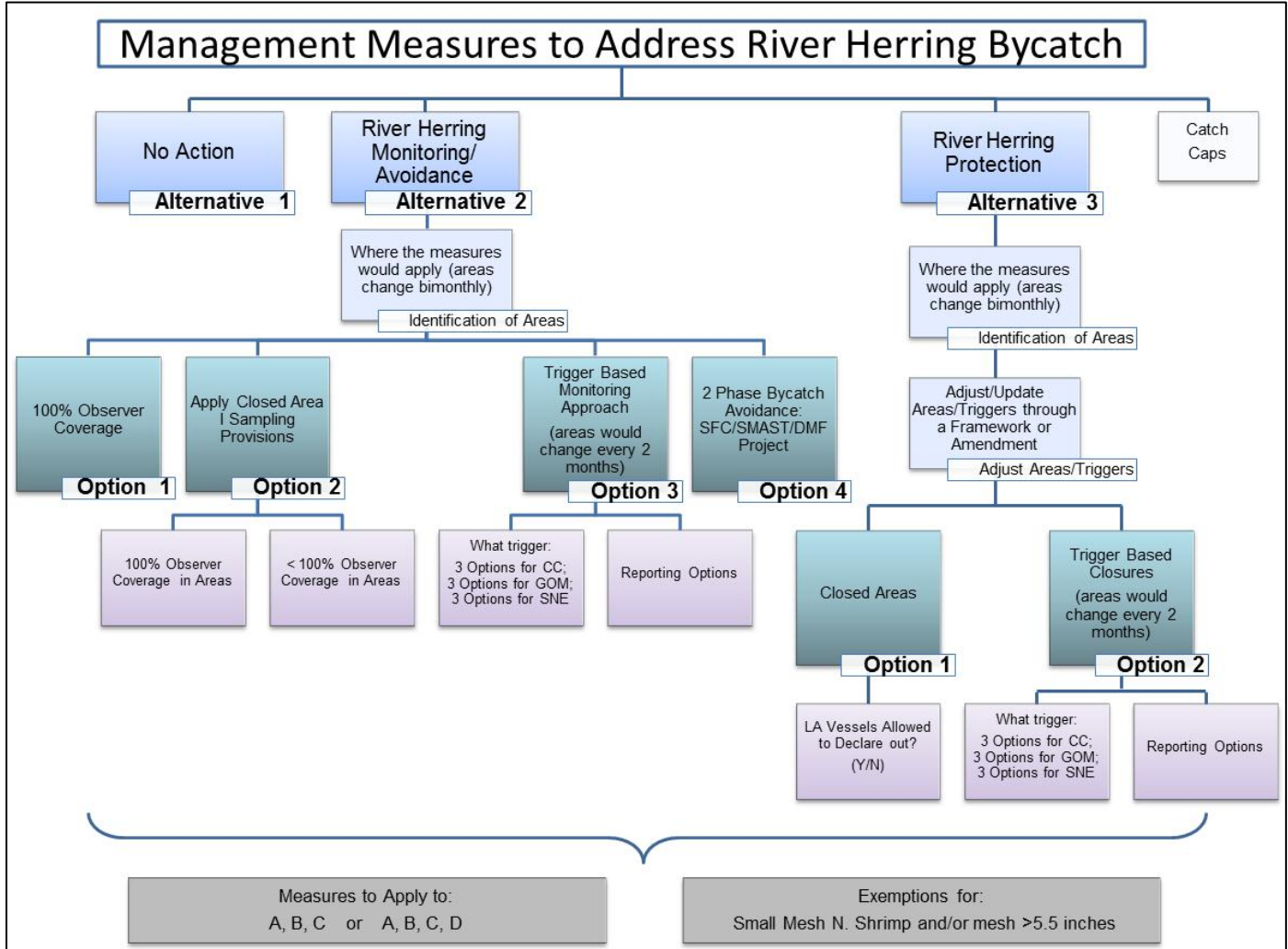
- Fish that have not been pumped aboard may be released if the vessel operator finds that:
 1. pumping the catch could compromise the safety of the vessel;
 2. mechanical failure precludes bringing some or all of the catch aboard the vessel; or
 3. spiny dogfish have clogged the pump and consequently prevent pumping of the rest of the catch.
- A Released Catch Affidavit would be required for slippage events on both trawl and purse seine vessels, to be signed by vessel operators under penalty of perjury. The Released Catch Affidavit would contain detailed information including (1) the reason for slippage; (2) an estimate of the quantity and species composition of the slipped fish; and (3) the location and time that the slippage event occurred. Since an observer will be present on the vessel when the maximized retention provisions apply, slippage events would require an affidavit and would be fully documented by the observer with photographs.

Management Measures: River Herring Bycatch

Summary of Measures Under Consideration to Address River Herring Bycatch

The Council is considering several management measures to address river herring bycatch in Amendment 5. Each of these alternatives relates to a general management goal: (1) river herring monitoring/avoidance; and (2) protection. While there may be some overlap and flexibility in combining management measures to achieve more than one of these goals, a range of options is being considered to achieve the goal identified within each of these alternatives. Many of the options under consideration to address river herring bycatch are also being considered as part of the larger catch monitoring program in Amendment 5. The figure below provides an illustrative summary of the range of management alternatives/options under consideration to address river herring bycatch. The Council is seeking your comments on these alternatives/options, which are described in detail in the following pages.

Summary of Measures Under Consideration to Address River Herring Bycatch



**Management
Measures:
River Herring
Bycatch
(continued)**

Alternative 1: No Action

Under this alternative, no additional management measures would be implemented in Amendment 5 to address river herring bycatch. The catch monitoring provisions and other measures established in the Herring FMP and in this amendment would continue to apply.

Alternative 2: River Herring Monitoring/Avoidance

Section 3.3.2 of Draft Amendment 5 – p. 46

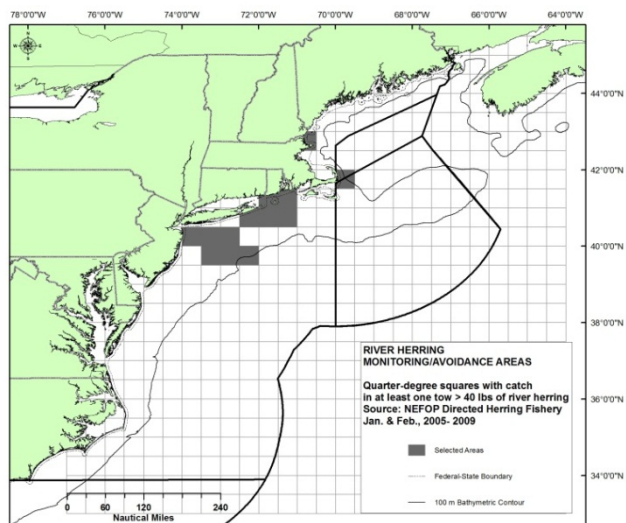
The management goal associated with this alternative is to monitor river herring bycatch and encourage bycatch avoidance. Under this alternative, additional management measures would apply during certain times and in certain areas where river herring encounters with the herring fishery were observed between 2005 and 2009 (proposed areas are defined in the figures on the following page). The intent of the additional management measures would be to increase sampling (above and beyond the requirements of the Amendment 5 catch monitoring program) and closely monitor the catch of river herring by the Atlantic herring fleet (defined by permit category). The long-term goal is to adopt river herring bycatch avoidance strategies in the times/areas where interactions with the herring fishery are observed/anticipated.

***Identification of River Herring Monitoring/Avoidance Areas
(Alternative 2)***

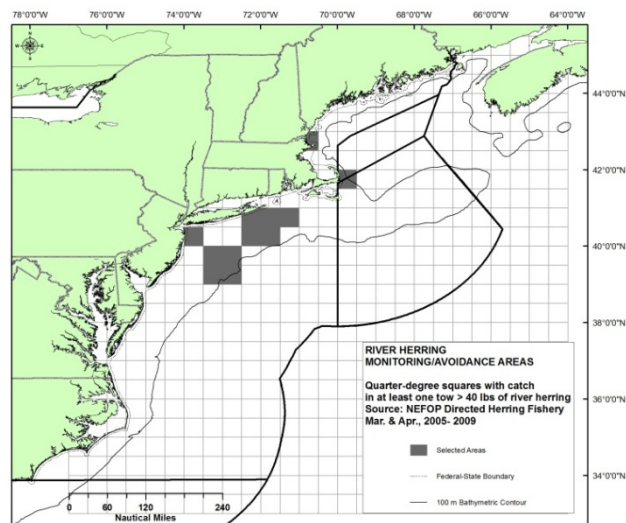
The areas identified in this alternative would be considered **River Herring Monitoring/Avoidance Areas**. In Amendment 5, the Monitoring/Avoidance Areas would be identified bimonthly as the quarter degree squares with at least one observed tow of river herring catch greater than 40 pounds, using 2005-2009 Northeast Fisheries Observer Program data from trips with greater than 2,000 pounds of kept Atlantic herring (figures on following page). These areas can be modified in the future through a Herring FMP amendment, framework adjustment, or the herring fishery specifications process.

Alternative 2: Proposed River Herring Monitoring/Avoidance Areas

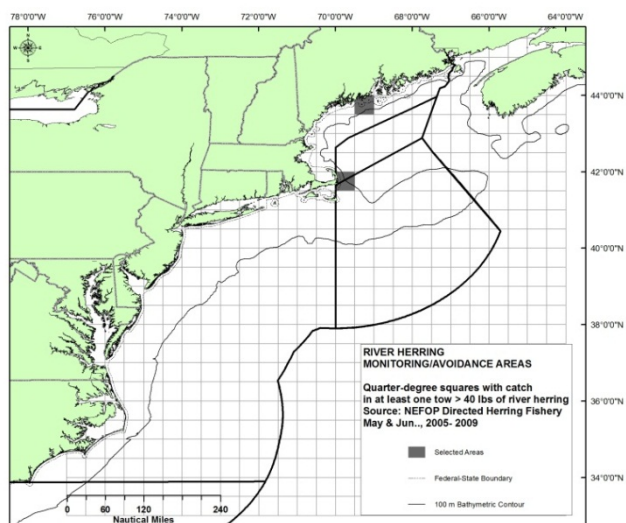
January – February



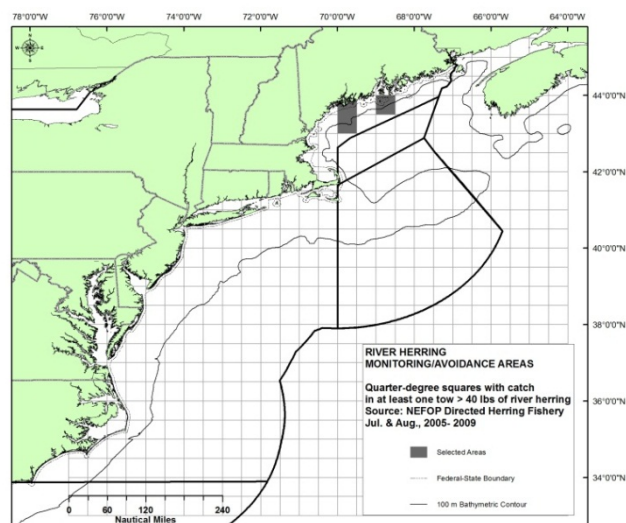
March – April



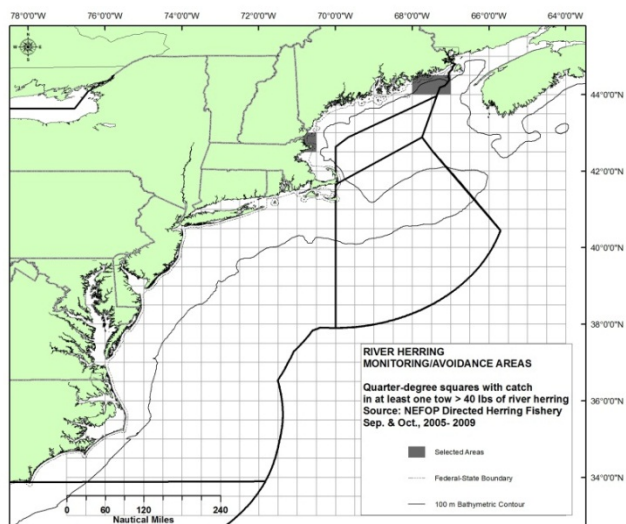
May – June



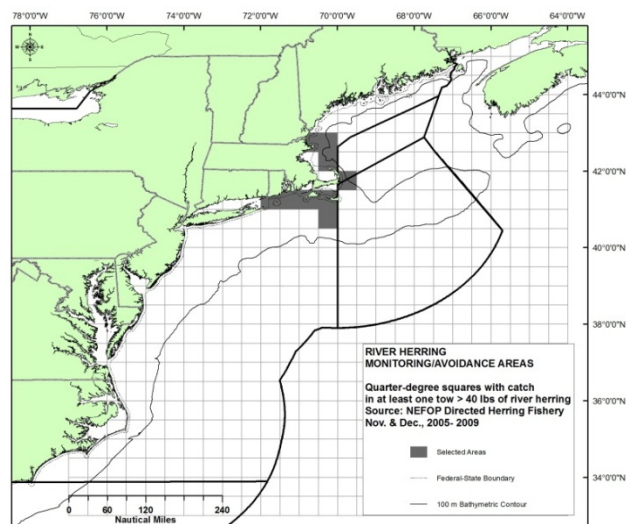
July – August



September – October



November – December



**Management
Measures:
River Herring
Bycatch
(continued)**

***Alternative 2: Management Options Under Consideration
(Monitoring/Avoidance)***

Section 3.3.2.2 of Draft Amendment 5 – p. 50

Option 1: 100% Observer Coverage

This option would require 100% observer coverage on any trips in the River Herring Monitoring/Avoidance Areas identified in this alternative. Atlantic herring vessels subject to this measure would be required to carry a NMFS-approved observer on any trip where fishing may occur in the River Herring Monitoring/Avoidance Areas.

Sub-Option A: This option applies to limited access herring vessels only – Categories A/B/C when on a declared herring trip. Vessels would be required to indicate their intention to fish in the River Herring Monitoring/Avoidance Areas when scheduling a NMFS-approved observer through the pre-trip notification system (see the Draft Amendment 5 document for a description of options under consideration to address trip notification requirements). To ensure 100% coverage, these vessels would be prohibited from fishing in the River Herring Monitoring/Avoidance Areas without a NMFS-approved observer on board.

Sub-Option B: This option applies to all herring vessels – Limited Access Categories A/B/ C when on a declared herring trip, as well as Open Access Category D. All herring vessels would be required to indicate their intention to fish in the River Herring Monitoring/Avoidance Areas when scheduling a NMFS-approved observer through the pre-trip notification system. Category D vessels would only be required to use the pre-trip notification system to schedule an observer if they intend to fish in a River herring Monitoring/Avoidance Area. To ensure 100% coverage, all herring vessels would be prohibited from fishing in the River Herring Monitoring/Avoidance Areas without a NMFS-approved observer on board.

Option 2: Apply Closed Area I Sampling Provisions

This option would apply management measures in River Herring Monitoring/Avoidance Areas similar to those for herring vessel access to Multispecies Closed Area I based on the November 30, 2010 Rule for the Closed Area I provisions (CFR §648.80). Under this option, the following provisions would apply to Atlantic herring vessels subject to this measure when fishing in the River Herring Monitoring/Avoidance Areas with a NMFS-approved observer on board:

- When fishing in a River Herring Monitoring/Avoidance Area with a NMFS-approved observer on board, vessels would be required to pump aboard all fish from the net for inspection and sampling by the observer. Vessels that do not pump fish would be required to bring all fish aboard the vessel for inspection and sampling by the observer. Unless specific conditions are met (see below), vessels would be prohibited from

**Management
Measures:
River Herring
Bycatch
(continued)**

releasing fish from the net, transferring fish to another vessel that is not carrying a NMFS-approved observer, or otherwise discarding fish at sea, unless the fish have first been brought aboard the vessel and made available for sampling and inspection by the NMFS-approved observer.

- Vessels may make short test tows in the area to check the abundance of target and bycatch species without pumping the fish on board if the net is reset without releasing the contents of the test tow. In this circumstance, catch from the test tow would remain in the net and would be available to the observer to sample when the subsequent tow is pumped out.
- Fish that have not been pumped aboard may be released if the vessel operator finds that:
 1. pumping the catch could compromise the safety of the vessel;
 2. mechanical failure precludes bringing some or all of the catch aboard the vessel; or
 3. spiny dogfish have clogged the pump and consequently prevent pumping of the rest of the catch.
- If the net is released for any of the reasons stated above, the vessel operator would be required to complete and sign a Released Catch Affidavit providing information about where, when, and why the net was released, as well as a good-faith estimate of the total weight of fish caught on the tow and weight of fish released. The Released Catch Affidavit must be submitted within 48 hours of completion of the trip.
- Following the release of the net for one of the three exemptions specified above, the vessel would be required to exit the River Herring Monitoring/Avoidance Area. The vessel may continue to fish but may not fish in the River Herring Monitoring/Avoidance Areas for the remainder of the trip.

Sub-Option A – Require 100% Observer Coverage: Atlantic herring vessels subject to this measure would be required to carry a NMFS-approved observer on any trip where fishing may occur in the River Herring Monitoring/Avoidance Areas. Vessels would be required to indicate their intention to fish in the River Herring Monitoring/Avoidance Areas when scheduling a NMFS-approved observer through the pre-trip notification system. To ensure 100% coverage, vessels would be prohibited from fishing in the River Herring Monitoring/Avoidance Areas without a NMFS-approved observer on board.

Sub-Option B – Less Than 100% Observer Coverage: Under this sub-option, observer coverage would be distributed on limited access herring vessels based on the provisions in Amendment 5 (see alternatives in the Draft Amendment 5 document). Atlantic herring vessels subject to this measure would be required to indicate their intention to fish in the River Herring Monitoring/Avoidance Areas when scheduling a NMFS-approved observer through the pre-trip notification system but would not be prohibited from fishing in the River Herring Monitoring Areas if a NMFS-approved observer is not deployed.

**Management Measures:
River Herring Bycatch
(continued)**

- Sub-Option C:** This option applies to limited access herring vessels – Categories A/B/C when on a declared herring trip.
- Sub-Option D:** This option applies to all herring vessels – Categories A/B/C when on a declared herring trip, as well as Category D.

Option 3: Trigger-Based Monitoring Approach

This option would apply additional management measures in River Herring Monitoring/Avoidance Areas when a specified river herring catch trigger is reached. The catch triggers apply to three general areas – Statistical Area 521 (Cape Cod, CC), the Gulf of Maine (GOM), and southern New England (SNE) – see figure on the following page. When the catch trigger in a specified area(s) is reached, then one of the monitoring options described above (Option 1 or Option 2) will apply to the Monitoring/Avoidance Areas within that geographic area where the trigger is reached.

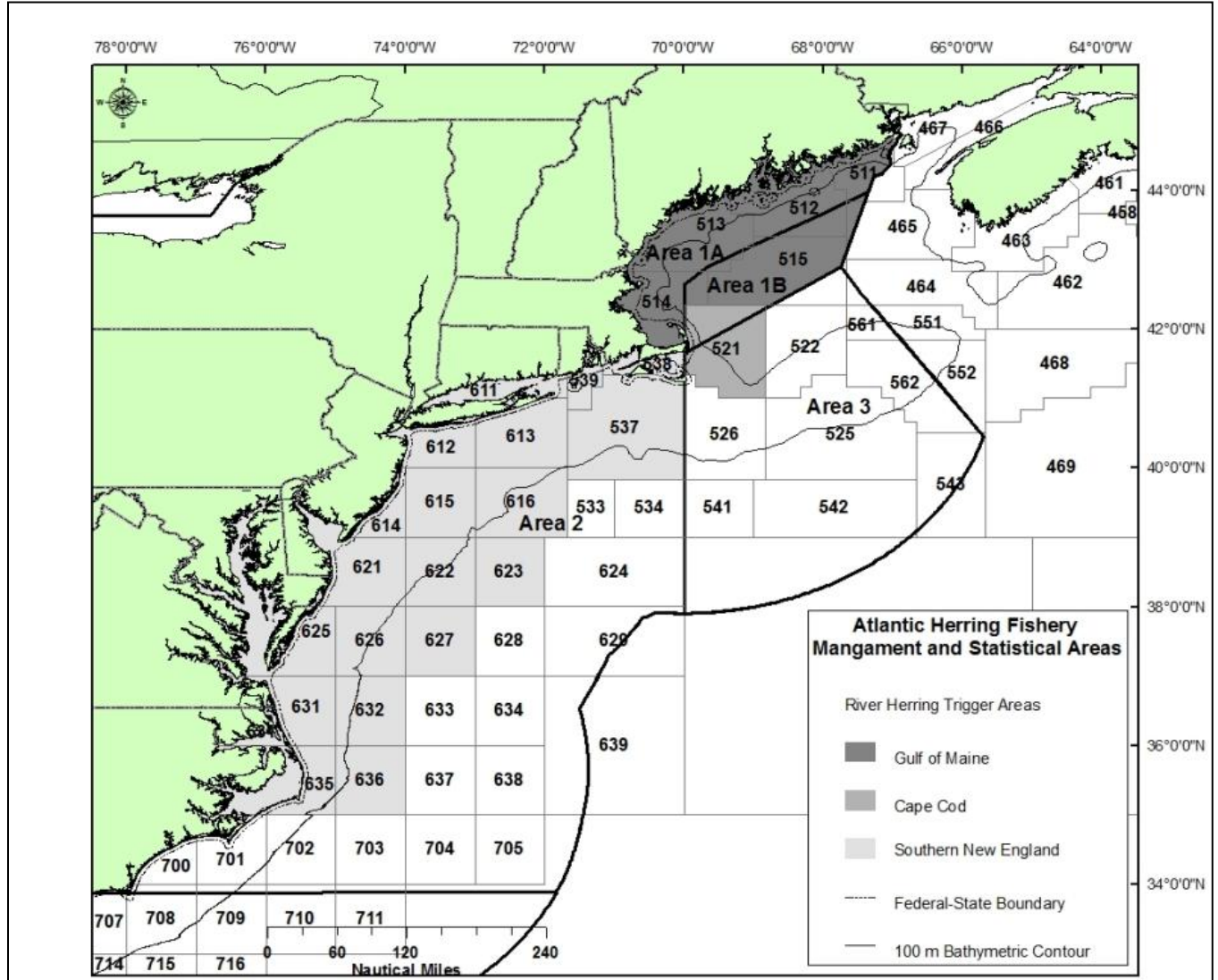
Sub-Options: River Herring Catch Triggers

Several sub-options are under consideration for specifying the river herring catch triggers in each of the geographic areas identified in the figure on the following page. The sub-options are based on the Herring PDT's work to generate the best estimates of river herring removals in recent years and are summarized below in the following table. The sub-options include river herring catch estimates based on the maximum, median, and mean annual estimate of river herring catch expanded from observer data from 2005-2009.

Sub-Options for River Herring Catch Triggers (Pounds)

Area	SUB-OPTIONS		
	3A (Max)	3B (Median)	3C (Mean)
CC	1,159,700	93,400	269,600
GOM	294,000	92,400	127,100
SNE	729,500	585,000	478,500

River Herring Catch Trigger Areas (Shaded)



**Under the trigger-based option, when a river herring catch trigger is reached in one of the shaded areas in the figure above (Gulf of Maine, Cape Cod, Southern New England), one of the monitoring/avoidance management options under consideration (described in the previous pages) would apply in that area for the remainder of the fishing year. Catch triggers in the areas shown in the figure above would be monitored based on extrapolations of river herring removals from catch reports (see the following reporting options under consideration).*

The Council is seeking your comments on this approach.

**Management
Measures:
River Herring
Bycatch
(continued)**

Monitoring the River Herring Catch Triggers – Reporting Options

During the fishing year, river herring catch in each of the trigger areas identified above will be monitored and estimated using observer data from all trips by herring vessels subject to this rule unless the vessel has declared out of the fishery (DOF) through VMS. Observed estimates of river herring catch will be expanded to an estimate of total river herring catch in each of the trigger areas. The estimation procedure will be developed by the NERO, in cooperation with the NEFSC and Council staff, and through consultation with the Council. The final calculation process will be provided on the NERO web page. Area-specific river herring catch estimates will be published on the NERO web page regularly.

Reporting Option 1: Report Total Catch by Trigger Area

In addition to reporting herring by herring management area through the ACL-monitoring system, herring vessels subject to this rule must report total catch (kept and discarded) by river herring catch trigger area so that the appropriate expansions can be made from the observed catch in those areas. For the purposes of this requirement, the **river herring catch trigger areas** are defined as the following statistical areas:

- Gulf of Maine (GOM) – Areas 511, 512, 513, 514, 515, 464, 465 (same as modified GOM haddock stock area established in Framework 46)
- Cape Cod (CC) – Area 521
- Southern New England (SNE) – Areas 537, 538, 539, 611, 612, 613, 614, 615, 616, 621, 622, 623, 625, 626, 627, 631, 632, 635, 636

Reporting Option 1 – Example Catch Report

This report is required by all limited access herring vessels on all declared herring trips. For each day of a declared trip, this report must be submitted by 9 AM the following day. Negative reports (0 lb) must be submitted when no fish were caught.

Note: VTR serial number must be the same number reported to the seafood dealer receiving the landings at the end of the trip. If you use multiple pages of the VTR on the trip, record the serial number from the first VTR page used.

Vessel Trip Report (VTR) Serial Number: _____

Date fish caught: Month (01-12) _____

Day (01-31) _____

Gear used to fish: (MWT, PS, BT) _____

SPECIES	AREA 1A	AREA 1B	AREA 2	AREA 3
Herring Kept (lb)	_____	_____	_____	_____
Herring Discarded (lb)	_____	_____	_____	_____

=====

All Fish Kept (lb)	GOM RH Area	CC RH Area	SNE RH Area
	_____	_____	_____
All Fish Discarded (lb)	GOM RH Area	CC RH Area	SNE RH Area
	_____	_____	_____

Note: Reporting by river herring area is required for all limited access vessels. Include total lb of all herring and non-herring. GOM RH Area includes Stat Areas 464, 465, and 511 thru 515. CC RH Area is Stat Area 521. SNE RH Area includes Stat Areas 537, 538, 539, 611, 612, 613, 614, 615, 616, 621, 622, 623, 625, 626, 627, 631, 632, 635, and 636.

All Fish Kept (lb)	GOM Haddock Area	GB Haddock Area
	_____	_____

Note: Reporting by haddock area is only required for vessels using mid-water trawl gear in Areas 1A, 1B, and/or 3. Include total lbs of all herring and non-herring.

GOM Haddock Area includes Stat Areas 464, 465, and 511 thru 515.
GB Haddock Area includes Stat Areas 521, 522, 525, 526, 561, and 562.

**Management Measures:
River Herring Bycatch
(continued)**

Reporting Option 2: Report Total Catch by Statistical Area

Under this option, in addition to reporting herring by herring management area through the ACL-monitoring system, herring vessels subject to this rule must report total catch (kept and discarded) by statistical area so that the appropriate expansions can be made from the observed catch in those areas to monitor both the haddock catch caps (Framework 46) and any river herring catch trigger areas that may be established.

Reporting Option 2 – Example Catch Report

This report (example for Reporting Option 2) is required by all limited access herring vessels on all declared herring trips. For each day of a declared trip, this report must be submitted by 9 AM the following day. Negative reports (0 lb) must be submitted when no fish were caught.

Note: VTR serial number must be the same number reported to the seafood dealer receiving the landings at the end of the trip. If you use multiple pages of the VTR on the trip, record the serial number from the first VTR page used.

Vessel Trip Report (VTR) Serial Number: _____

Date fish caught: Month (01-12) _____

Day (01-31) _____

Gear used to fish: (MWT, PS, BT) _____

SPECIES	AREA 1A	AREA 1B	AREA 2	AREA 3
---------	---------	---------	--------	--------

=====

Herring kept (lbs)	_____	_____	_____	_____
--------------------	-------	-------	-------	-------

Herring discarded (lbs)	_____	_____	_____	_____
-------------------------	-------	-------	-------	-------

=====

Report all fish kept (herring and non-herring species) and the Stat Area in which the fish were caught. If fish were caught in multiple Stat Areas in one day, report the fish kept (lbs) in each Stat Area.

All Fish Kept (lbs) _____ Stat/Chart Area _____

All Fish Kept (lbs) _____ Stat/Chart Area _____

All Fish Kept (lbs) _____ Stat/Chart Area _____

**Management
Measures:
River Herring
Bycatch
(continued)**

***Management Measures That Apply When Trigger is Reached
(Alternative 2)***

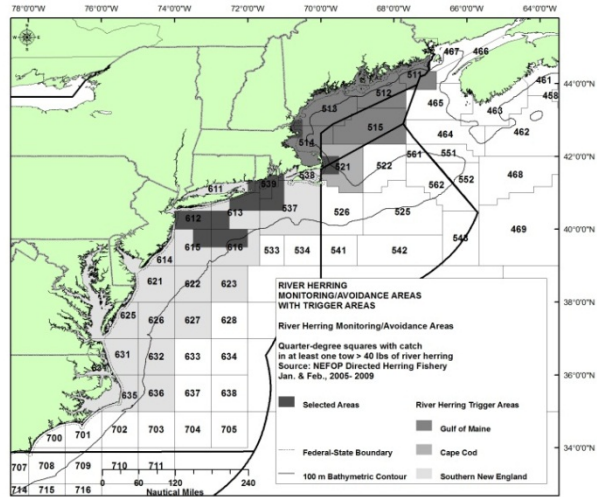
When the river herring catch trigger in a specified area(s) is reached, then one of the monitoring options previously described (Option 1 – 100% observer coverage, or Option 2 – Closed Area I sampling provisions) would apply to the River Herring Monitoring/Avoidance Areas within that area where the trigger is reached for the remainder of the fishing year.

For example, if the Gulf of Maine river herring catch trigger is reached in March, then the shaded quarter degree squares in the inshore Gulf of Maine shown in the figures on the following page could be subjected to increased monitoring/sampling during the months identified in the figures for the remainder of that fishing year. Similarly, if the southern New England river herring catch trigger is reached in August, then the shaded squares shown in the southern New England trigger area could be subject to increased monitoring during November and December.

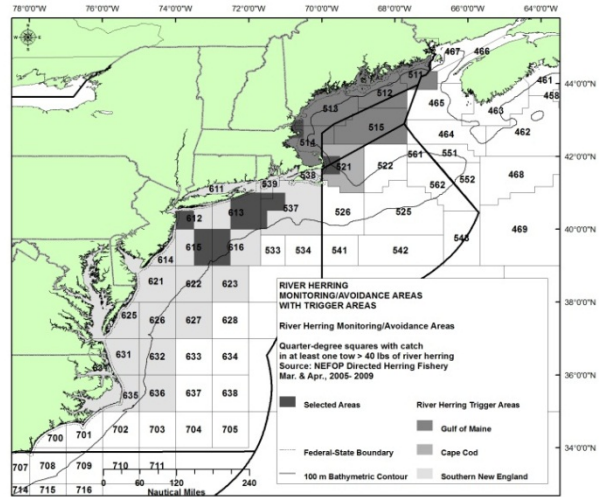
The figures on the following page illustrate which Monitoring/Avoidance Areas are associated with the river herring catch trigger areas.

Alternative 2, Option 3: Trigger Areas and Monitoring/Avoidance Areas

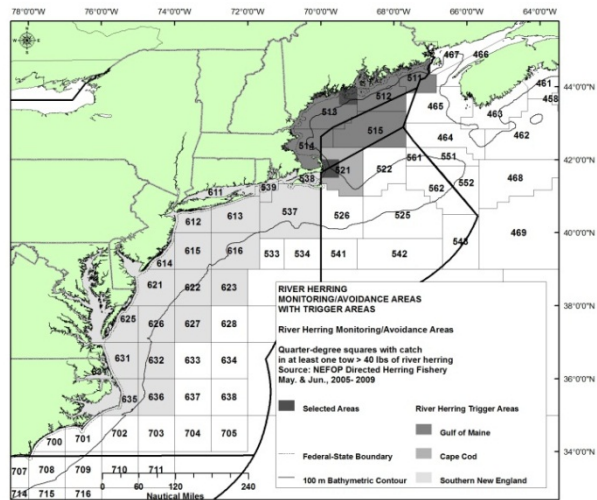
January – February



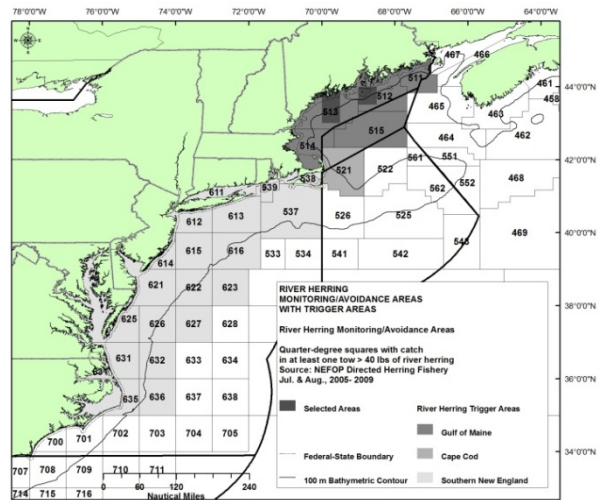
March – April



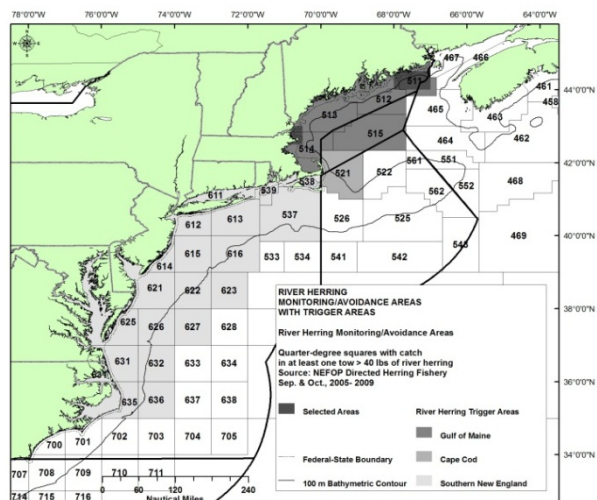
May – June



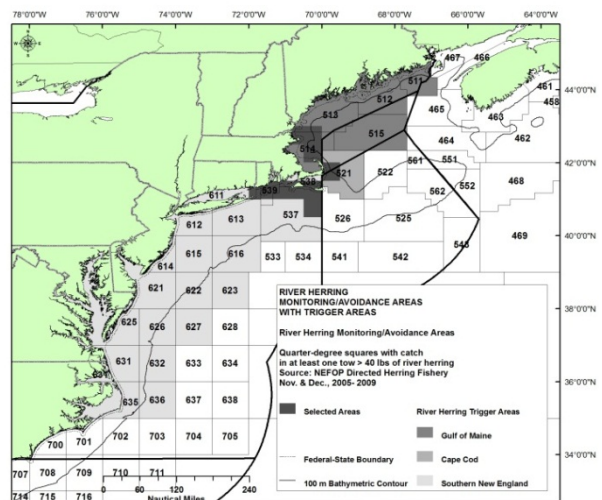
July – August



September – October



November – December



**Management
Measures:
River Herring
Bycatch
(continued)**

**Option 4: Two-Phase Bycatch Avoidance Approach Based on
SFC/SMAST/DMF Project**

Section 3.3.2.2.4 of Draft Amendment 5 – p. 61

This option may be implemented as a stand-alone approach for addressing river herring bycatch in Amendment 5, or it may be implemented in combination with other measures/options under consideration.

This option would implement a two-phase river herring bycatch avoidance program developed in cooperation with the fishing industry, represented by the Sustainable Fisheries Coalition (SFC) working in partnership with Massachusetts Division of Marine Fisheries (MA DMF) and UMASS Dartmouth School of Marine Science and Technology (SMAST). The current (ongoing) SFC river herring bycatch avoidance project has been funded by the National Fish and Wildlife Foundation (NFWF, see additional information below).

Under this option, a long-term river herring bycatch avoidance strategy would be implemented in the Atlantic herring fishery through a two-phase approach:

1. Phase I (Amendment 5) –

- A. Identify Preliminary Bycatch Avoidance Areas (proposed Monitoring/Avoidance Areas in Alternative 2);
- B. Focus/increase monitoring/sampling in the Monitoring/Avoidance Areas (through Amendment 5 catch monitoring program and/or additional management measures);
- C. Establish mechanism for adjusting Monitoring/Avoidance Areas and implementing long-term river herring bycatch avoidance strategies in the future through a framework adjustment to the Herring FMP;
- D. Work with SFC, SMAST, and MA DMF to support the current project, encourage the collection of additional information, and promote the development of long-term bycatch avoidance strategies

During the continued development, and upon the implementation of Amendment 5, the Council, through its staff and the Herring PDT, will continue to work with the SFC, SMAST, and MA DMF to evaluate progress related to the SFC river herring bycatch avoidance program. As details emerge and additional information becomes available, the PDT will update the Herring Committee/Council and assess various elements of the project, including data (nature, quality, and timeliness), and fleet compliance and communication. The Herring PDT will work with the SFC/SMAST/DMF during this time to evaluate the appropriateness of the River Herring Monitoring/Avoidance Areas and will develop recommendations for any adjustments to those areas, which would occur during Phase II (see following).

**Management
Measures:
River Herring
Bycatch
(continued)**

2. Phase II (2013 Framework Adjustment) –

Upon completion of the SFC bycatch avoidance project (late 2012), the Council will review the results and develop a framework adjustment to implement any additional bycatch avoidance strategies that it deems to be appropriate. If the SFC/SMAS/DMF project is successful, the Council may develop a framework adjustment during Phase II to implement some or all elements of the project as part of a long-term bycatch reduction strategy in the Atlantic herring fishery. During Phase II, the Council would:

- A. Formally evaluate the SFC/SMAS/DMF project and its results (through the Herring PDT, Herring Committee, and Council, with input from project participants and the Herring Advisory Panel) upon the project completion (during 2013);
- B. Receive recommendations from the Herring PDT and Herring Committee (with input from the AP) regarding the need for/appropriateness of follow-up action to implement a long-term strategy for river herring bycatch reduction through a framework adjustment (mid-late 2013);
- C. Conduct an initial Framework Adjustment meeting during 2013 or 2014 – An initial framework meeting would be required by this amendment during 2013 or early 2014 in order to formally evaluate the results of the SFC/SMAS/DMF project and develop follow-up management action as necessary. During this process, and depending on the results of the SFC/SMAS/DMF project, the Council may determine that follow-up action is not necessary or appropriate. To emphasize the importance of this issue and express the Council's intent to follow-through with further consideration of management action, however, the initial framework meeting would be **required** in 2013 or early 2014 regardless of whether additional action is deemed necessary/appropriate.
- D. Conduct a final Framework Adjustment meeting during 2013/2014 (optional, if the Council determines that a follow-up framework action is necessary/appropriate, based on the outcome of the SFC/SMAS project and the Herring PDT/Committee recommendations)

While it is unclear exactly what will result from the SFC/SMAS/DMF project, it is expected that some strategies for reducing bycatch in the fishery will emerge, possibly through a flexible system of communications to enact real-time "move-along rules." Consequently, elements to be specified in the Phase II framework adjustment (if the Council determines that a framework adjustment is appropriate) could include (but are not limited to):

- Adjustments to the River Herring Monitoring/Avoidance Areas;
- The mechanism and process for tracking fleet activity, reporting bycatch events, compiling data, and notifying the fleet of changes to the area(s);
- The definition/duration of "test tows," if test tows would be utilized to determine the extent of river herring bycatch in a particular area(s);

**Management Measures:
River Herring Bycatch
(continued)**

- The threshold for river herring bycatch that would trigger the need for vessels to be alerted and move out of the area(s);
- The distance that vessels would be required to move from the area(s); and
- The time that vessels would be required to remain out of the area(s).

Options for Exemptions Under Alternative 2

Before selecting final management measures, the Council will review river herring bycatch data (provided in this document) and consider exemptions to the Options 1, 2, and 3 under Alternative 2 (described in the Draft Amendment 5 document) for vessels participating in either the small mesh northern shrimp fishery (CFR 680.80 (a)(5)) or vessels fishing with mesh greater than 5.5 inches, or both.

The Council is seeking public comment on this issue and may determine that either or both of these fisheries should be exempt from the river herring management options when it selects final management measures for Amendment 5.

Alternative 3: River Herring Protection

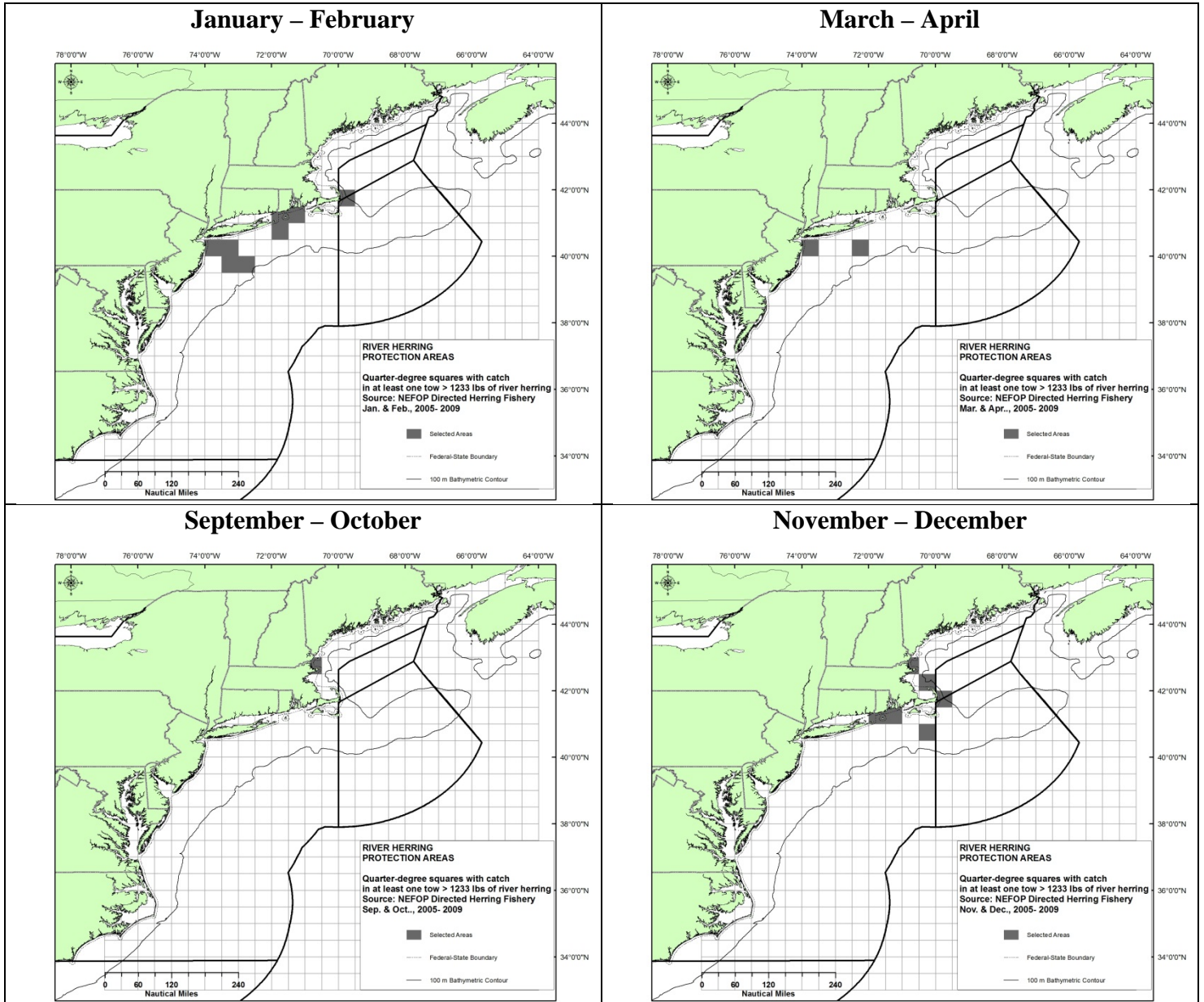
Section 3.3.3 of Draft Amendment 5 – p. 63

The management goal associated with this alternative is to protect river herring. This alternative includes seasonal closures that are intended to minimize river herring encounters in the herring fishery based on times/areas where the largest encounters with the fishery were observed between 2005 and 2009.

Identification of Protection Areas (Alternative 3)

The areas identified in this alternative will be considered River Herring Protection Areas. In Amendment 5, the Protection Areas will be identified bimonthly as the quarter degree squares with at least one observed tow of river herring catch greater than 1,233 pounds, using 2005-2009 Northeast Fisheries Observer Program data from trips with greater than 2,000 pounds of kept Atlantic herring (see following figures). These areas can be modified in the future through a Herring FMP amendment, framework adjustment, or the herring fishery specifications process. Under this alternative, no River Herring Protection Areas would be established in this amendment during May – August.

Alternative 3: Proposed River Herring Protection Areas



Under Alternative 3, no River Herring Protection Areas would be established from May-August.

**Management
Measures:
River Herring
Bycatch
(continued)**

Alternative 3: Management Options Under Consideration

Section 3.3.3.2 of Draft Amendment 5 – p. 66

Option 1: Closed Areas

This option would prohibit directed fishing for herring in the areas/times that are identified as River Herring Protection Areas. Under this option, all herring permit holders (Category A, B, C, and D) would be prohibited from fishing for, possessing, catching, transferring, or landing herring from the River Herring Protection Areas on all fishing trips. Vessels that possess A, B, C, or D herring permits and are fishing with mesh greater than 5.5 inches (and with no small mesh on board) would be exempt from the closed area provisions.

***Sub-Option:* Mechanism for limited access herring vessels to
declare out of the fishery for a period of time**

This option would prohibit directed fishing for herring in the areas/times that are identified as River Herring Protection Areas. Under this option, all herring permit holders (Category A, B, C, and D) would be prohibited from fishing for, possessing, catching, transferring, or landing herring from the River Herring Protection Areas on all fishing trips. Vessels that possess A, B, C, or D herring permits and are fishing with mesh greater than 5.5 inches (and with no small mesh on board) would be exempt from the closed area provisions. If a Category A, B, or C vessel declares out of the herring fishery (“DOF”) prior to leaving port, that vessel may fish in the RH Protection Areas but may not harvest, possess, or land herring on that trip (this provision would also apply to mackerel vessels that obtain a permit to allow them to catch more than the current open access allowance of 3 mt – see previous options for mackerel vessels).

**Management Measures:
River Herring Bycatch
(continued)**

Option 2: Trigger-Based Closed Areas

This option would close the River Herring Protection Areas identified in this alternative when a specified river herring catch trigger is reached. The areas that would be closed are the Protection Areas contained within the geographic range of the trigger areas.

The catch triggers apply to three general areas – Statistical Area 521 (Cape Cod, CC), the Gulf of Maine (GOM), and southern New England (SNE) – see the figure illustrating the trigger areas on p. 45.

Sub-Options: River Herring Catch Triggers

Several sub-options are under consideration for specifying the river herring catch triggers in each of the geographic areas identified in the figure below. The sub-options are the same as those proposed under Alternative 2.

Area	SUB-OPTIONS FOR CATCH TRIGGERS (POUNDS)		
	3A (Max)	3B (Median)	3C (Mean)
CC	1,159,700	93,400	269,600
GOM	294,000	92,400	127,100
SNE	729,500	585,000	478,500

Monitoring the River Herring Catch Triggers – Reporting Options

The reporting options are the same as those proposed under Alternative 2, Option 3 and are described below (see pp. 47-48 for examples).

During the fishing year, river herring catch in each of the trigger areas identified above will be monitored and estimated using observer data from all trips by herring vessels subject to this rule unless the vessel has declared out of the fishery (DOF) through VMS. Observed estimates of river herring catch will be expanded to an estimate of total river herring catch in each of the trigger areas. The estimation procedure will be developed by the NERO, in cooperation with the NEFSC and Council staff, and through consultation with the Council. The final calculation process will be provided on the NERO web page. Area-specific river herring catch estimates will be published on the NERO web page regularly.

**Management Measures:
River Herring Bycatch
(continued)**

Reporting Option 1: Report Total Catch by Trigger Area

In addition to reporting herring by herring management area through the ACL-monitoring system, herring vessels subject to this rule must report total catch (kept and discarded) by river herring catch trigger area so that the appropriate expansions can be made from the observed catch in those areas. For the purposes of this requirement, the **river herring catch trigger areas** are defined as the following statistical areas:

- Gulf of Maine (GOM) – Areas 511, 512, 513, 514, 515, 464, 465 (same as modified GOM haddock stock area established in Framework 46)
- Cape Cod (CC) – Area 521
- Southern New England (SNE) – Areas 537, 538, 539, 611, 612, 613, 614, 615, 616, 621, 622, 623, 625, 626, 627, 631, 632, 635, 636

See Example Catch Report for Option 1 on p. 47.

Reporting Option 2: Report Total Catch by Statistical Area

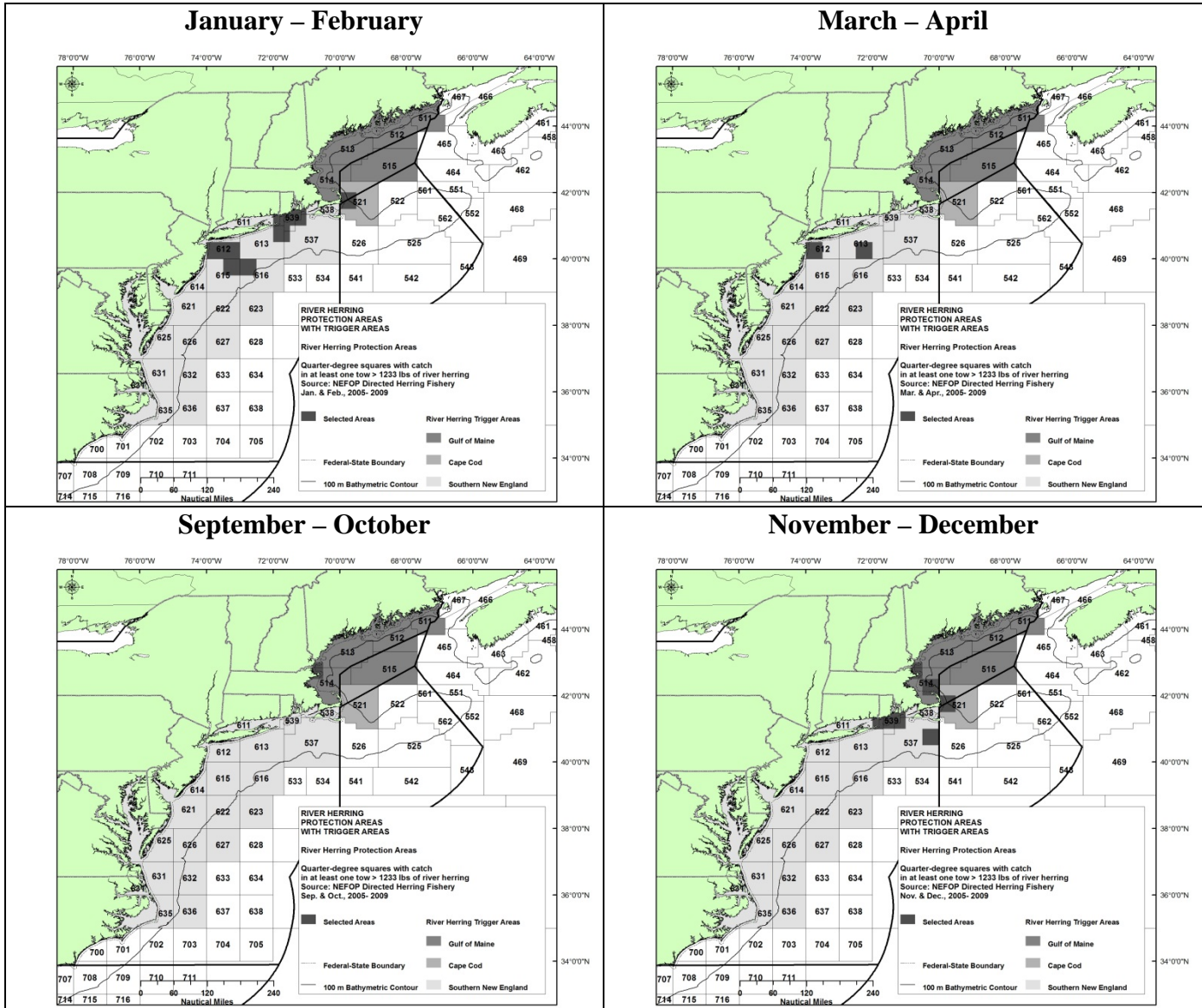
Under this option, in addition to reporting herring by herring management area through the ACL-monitoring system, herring vessels subject to this rule must report total catch (kept and discarded) by statistical area so that the appropriate expansions can be made from the observed catch in those areas to monitor both the haddock catch caps (Framework 46) and any river herring catch trigger areas that may be established.

See Example Catch Report for Option 2 on p. 48.

Management Measures That Apply When Trigger is Reached

When the river herring catch trigger in a specified area(s) is reached, then the River Herring Protection Areas within that geographic area where the trigger is reached will be closed on a bimonthly basis. The closures will apply to all Protection Areas within the trigger area(s) for the remainder of the fishing year. The figures on the following page illustrate which Protection Areas are associated with the trigger areas. For example, if the Gulf of Maine river herring catch trigger is reached in March, then the shaded quarter degree square in the inshore Gulf of Maine would close during September and October, and the two square in the same trigger area shown in the last figure would close for November and December. Similarly, if the southern New England River Herring Catch Trigger is reached in August, then only the shaded squares shown in the southern New England trigger area would close in November and December (no closures in the southern New England area would occur during September/October).

Alternative 3, Option 2: Trigger Areas and Protection Areas



**Under the trigger-based option, when a river herring catch trigger is reached in one of the shaded areas in the figure above (Gulf of Maine, Cape Cod, Southern New England), closure of the River Herring Protection Areas would apply in that trigger area for the remainder of the fishing year. Catch triggers in the areas shown in the figure above would be monitored based on extrapolations of river herring removals from catch reports (the reporting options under consideration are previously described).*

The Council is seeking your comments on this approach.

**Management Measures:
River Herring Bycatch
(continued)**

Options for Exemptions Under Alternative 3

Before selecting final management measures, the Council will review river herring bycatch data (provided in this document) and consider exemptions to the Options under Alternative 2 (described in this section) for vessels participating in either the small mesh northern shrimp fishery (CFR 680.80 (e)) or vessels fishing with mesh greater than 5.5 inches, or both.

The Council is seeking public comment on this issue and may determine that either or both of these fisheries should be exempt from the river herring management options when it selects final management measures for Amendment 5.

Mechanism for Adjusting/Updating River Herring Areas/Triggers

Section 3.3.4 of Draft Amendment 5 – p. 74

River herring management areas (for monitoring, avoidance, and/or protection) and/or river herring catch triggers (if established in this amendment) can be modified/updated through an amendment or framework adjustment to the Herring FMP. The areas and triggers should be reviewed by the Herring Plan Development Team every three years as part of the Atlantic herring fishery specifications process. Any modifications/adjustments, as deemed necessary by the Council, should accompany the specifications package (i.e., joint specifications/framework adjustment package). The MAFMC and ASMFC would be consulted during the adjustment process.

River Herring Catch Caps

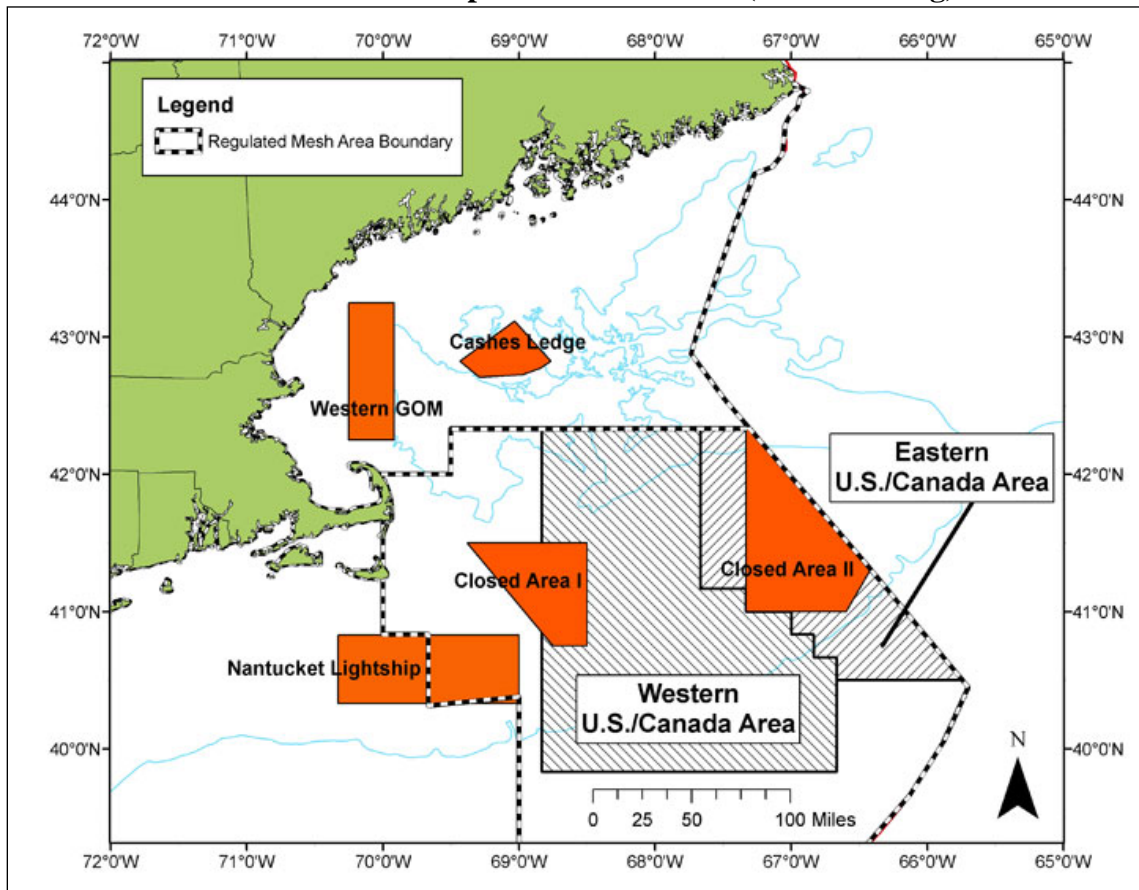
Section 3.3.5 of Draft Amendment 5 – p. 74

The Council will consider establishing a river herring catch cap for the Atlantic herring fishery as one of several potential measures to reduce bycatch. The catch cap will be considered by the Council through a framework adjustment to the Herring FMP or the Atlantic herring fishery specifications process after the ASMFC completes its stock assessment.

**Management Measures:
Midwater Trawl
Access to
Groundfish
Closed Areas**

The alternatives under consideration to establish criteria for midwater trawl (single and paired) access to year-round groundfish closed areas are described in the following subsections. The Council is seeking your comments on the alternatives under consideration.

Year-Round Multispecies Closed Areas (Solid Shading)



Alternatives 1 and 2

Section 3.4.1 of Draft Amendment 5 – p. 77

Alternative 1 – No Action

Under the no action alternative, current criteria for midwater trawl vessel access to the groundfish closed areas would be maintained. This includes access to the groundfish closed areas, with additional provisions for observer coverage and increased sampling in Closed Area I (based on the November 30, 2010 Rule for the Closed Area I provisions (CFR §648.80)) as well as provisions implemented through Framework 46 to the Northeast Multispecies (Groundfish) FMP.

**Management
Measures:
Midwater Trawl
Access to
Groundfish
Closed Areas
(continued)**

Under the no action alternative, vessels issued a Federal herring permit and fishing with midwater trawl gear in Closed Area I must declare to NMFS their intent to fish in the closed area at least 72 hours prior to beginning a trip and carry onboard a NMFS-approved observer. Vessels fishing in Closed Area I with midwater trawl gear cannot release fish from the codend of the net, transfer fish to another vessel that is not carrying a NMFS-approved observer (e.g., an Atlantic herring at-sea processing vessel or an Atlantic herring carrier vessel), or discard fish at sea. In addition, all of the fish caught using midwater trawl gear in Closed Area I must be brought aboard the vessel and made available for sampling and inspection by the observer, except in the case of mechanical failure or spiny dogfish clog the net. However, if fish are released from the codend for any of these reasons, without being sampled by a NMFS-approved observer, the vessel must leave the Closed Area I and submit a Closed Area I Midwater Trawl Released Codend Affidavit to NMFS.

Vessels issued a Category A/B herring permit and on a declared herring trip, regardless of gear or area fished, and or a vessel issued a Category C permit and/or an Category D permit (open access) that fishes with midwater trawl gear in Areas 1A, 1B, and 3 are prohibited from discarding haddock at sea. Herring processors and dealers are required to separate out, and retain such haddock for at least 12 hours for inspection by authorized NMFS officers. These vessels can also possess and land up to 100 lb. of other NE multispecies. However, haddock or other NE multispecies separated from the herring catch may not be sold, purchased, received, traded, bartered, or transferred, or attempted to be sold, purchased, received, traded, bartered, or transferred for, or intended for, human consumption.

Alternative 2 – Pre-Closed Area I Provisions

Under this alternative, criteria for midwater trawl vessel access to the groundfish closed areas would be based on provisions prior to the implementation of the Closed Area I rule. Herring midwater trawl vessels would be allowed to access all of the year-round groundfish closed areas without further limitations (the haddock catch cap and 100-pound multispecies possession limit would still apply, consistent with the Framework 46 provisions implemented in September 2011).

Vessels issued a Federal herring permit would no longer be required to give 72 hours' notice before beginning a trip to the NMFS observer program, and would no longer be required to carry a NMFS-approved observer in order to fish in Closed Area I. In addition, there would no longer be any requirements for fish caught using midwater trawl gear to be brought on board the vessel and be sampled by an observer.

Vessels issued a Category A or B herring permit and on a declared herring trip, regardless of gear or area fished, and or a vessel issued a Limited Access Incidental Catch Herring Permit and/or an Open Access Herring Permit that fished with midwater trawl gear in Areas 1A, 1B, or 3 are still prohibited from discarding haddock at sea. Herring processors and dealers are required to separate out, and retain such haddock for at least 12 hours for inspection

**Management Measures:
Midwater Trawl Access to Groundfish Closed Areas
(continued)**

by authorized NMFS officers. These vessels can also still possess and land up to 100 lb of other NE multispecies. However, haddock or other NE multispecies separated from the herring catch may not be sold, purchased, received, traded, bartered, or transferred, or attempted to be sold, purchased, received, traded, bartered, or transferred for, or intended for, human consumption.

Because this alternative implements less restrictive management measures than current provisions, implementing this measure would require action under the Multispecies FMP, so Amendment 5 would need to serve as a joint groundfish action (Framework Adjustment to the Multispecies FMP).

Alternative 3: 100% Observer Coverage

Section 3.4.2 of Draft Amendment 5 – p. 78

This option would require herring midwater trawl (single and paired) vessels to carry a NMFS-approved observer on board on any trip in the groundfish year-round closed areas.

Midwater trawl vessels subject to this measure would be required to carry a NMFS-approved observer on any trip where fishing may occur in the year-round multispecies closed areas. Vessels would be required to indicate their intention to fish in the multispecies closed areas when scheduling an observer through the pre-trip notification system. To ensure 100% coverage, vessels would be prohibited from fishing in the closed areas without a NMFS-approved observer on board.

The Closed Area I sampling provisions (based on the November 30, 2010 Rule for the Closed Area I provisions (CFR §648.80)) and haddock catch cap/Framework 46 provisions would continue to apply under this alternative.

Alternative 4: Closed Area I Provisions

Section 3.4.3 of Draft Amendment 5 – p. 79

This alternative would apply the current provisions for midwater trawl vessels in Closed Area I to all of the groundfish year-round closed areas, based on the November 30, 2010 Rule for the Closed Area I provisions (CFR §648.80). Under this alternative, the following provisions would apply to midwater trawl (single and paired) vessels fishing in the groundfish year-round closed areas on any trips with a NMFS-approved observer on board (options for levels of observer coverage in the year-round groundfish closed areas are described below):

- When fishing in a groundfish year-round closed areas with a NMFS-approved observer on board, midwater trawl vessels would be required to pump aboard all fish from the net for inspection and sampling by the observer. Vessels that do not pump fish would be required to bring all fish aboard the vessel for inspection and sampling by the observer. Unless specific conditions are met (see below), vessels would be

**Management Measures:
Midwater Trawl Access to
Groundfish Closed Areas
(continued)**

prohibited from releasing fish from the net, transferring fish to another vessel that is not carrying a NMFS-approved observer, or otherwise discarding fish at sea, unless the fish have first been brought aboard the vessel and made available for sampling and inspection by the observer.

- Vessels may make short test tows in the area to check the abundance of target and bycatch species without pumping the fish on board if the net is reset without releasing the contents of the test tow. In this circumstance, catch from the test tow would remain in the net and would be available to the observer to sample when the subsequent tow is pumped out.
- Fish that have not been pumped aboard may be released if the vessel operator finds that:
 1. pumping the catch could compromise the safety of the vessel;
 2. mechanical failure precludes bringing some or all of the catch aboard the vessel; or
 3. spiny dogfish have clogged the pump and consequently prevent pumping of the rest of the catch.
- If the net is released for any of the reasons stated above, the vessel operator would be required to complete and sign a Released Catch Affidavit providing information about where, when, and why the net was released, as well as a good-faith estimate of the total weight of fish caught on the tow and weight of fish released. The Released Catch Affidavit must be submitted within 48 hours of completion of the fishing trip.
- Following the release of the net for one of the three exemptions specified above, the vessel would be required to exit the groundfish year-round closed area. The vessel may continue to fish but may not fish in the groundfish year-round closed area for the remainder of the trip.

Option 4A Require 100% Observer Coverage: Under this alternative/option, midwater trawl (single and paired) vessels would be required to carry a NMFS-approved observer on **all trips** where fishing may occur in the groundfish year-round closed areas. Vessels would be required to indicate their intention to fish in the groundfish year-round closed areas when scheduling a NMFS-approved observer through the pre-trip notification system. To ensure 100% coverage, midwater trawl vessels would be prohibited from fishing in the groundfish year-round closed areas without a NMFS-approved observer on board. The sampling provisions described above would apply on all trips in the year-round closed areas since 100% observer coverage in these areas would be required.

Option 4B Less Than 100% Observer Coverage: Under this alternative/option, observer coverage would be distributed on limited access herring vessels based on the provisions in Amendment 5 (see alternatives in the Draft Amendment 5 document, Alternatives to Allocate Observer Coverage on Limited Access Herring Vessels). If the alternative for 100% observer coverage is adopted, then this sub-option would only apply to

**Management
Measures:
Midwater Trawl
Access to GF
CAs,
Continued**

midwater trawl vessels with open access permits. Midwater trawl vessels would be required to indicate their intention to fish in the groundfish year-round closed areas when scheduling a NMFS-approved observer through the pre-trip notification system but would not be prohibited from fishing in the groundfish year-round closed areas if an observer is not deployed (with the exception of Closed Area I). The sampling provisions described above would apply on all trips in the year-round closed areas with a NMFS-approved observer on board.

Alternative 5: Closed Areas

Section 3.4.4 of Draft Amendment 5 – p. 80

This alternative closes the year-round groundfish closed areas to midwater trawl vessels participating in the herring fishery. Under this alternative, access to groundfish closed areas by midwater trawl vessels (single and paired) that are not declared out of the fishery (DOF) would be prohibited except with an experimental fishing permit (EFP).

The Council would strongly endorse experimental fisheries in the groundfish closed areas that include some or all the following provisions:

- Full observer coverage (one or more NMFS-approved observers per vessel, as necessary to ensure that every haul is observed)
- Electronic monitoring systems to augment observer data
 - Tow characteristics (i.e., total catch, GPS, height of foot-rope)
 - Video record of catch pre-sorted on deck for observer analysis
- Possible additional elements of EFP for groundfish closed area access
 - Pair trawling in closed areas prohibited
 - No more than 20 midwater trawl trips per closed area per fishing year
 - Fishing with net foot-rope less than 20 feet off the bottom prohibited
 - Monitoring protocols including mandatory reporting of vessel electronics information and shoreside gear inspections to determine the depth fished by midwater trawl gear and whether contact with the bottom has occurred
 - Groundfish bycatch triggers exclude vessels from access to the closed areas
 - Groundfish bycatch is detected in an amount greater than 100 pounds for any vessel trip – all midwater trawling in such closed area suspended for a minimum of 48 hours
 - Overfished stock – Regional Administrator determines bycatch to be 0.1% of TAC for stock – one year exclusion
 - Other groundfish – Regional Administrator determines bycatch to be 0.5% of TAC for stock – one year exclusion

***Additional
Measures that
can be
Implemented
through a
Framework
Adjustment***

Section 3.5 of Draft Amendment 5 – p. 80

If any new management measures are adopted in Amendment 5, changes to those measures and related adjustments would be added to the list of measures that can be implemented through a framework adjustment to the Herring FMP in the future. For example, if the Council selects Alternative 2 to address river herring bycatch (Monitoring/Avoidance Areas and one of the options for monitoring catch in those areas), then adjustments to the Monitoring/Avoidance Areas and the management measures that pertain to those areas would be added to the list of measures that can be implemented through a framework adjustment in the future.

During the comment period on the Draft EIS, the public should consider whether or not any of the new measures proposed in this amendment should be modified in the future through a framework adjustment. For the final Amendment 5 document and Final EIS, this section will be based on the management measures adopted by the Council.

Currently, this document proposes to add river herring catch caps as one measure that could be implemented in the future through a framework adjustment to the Herring FMP. The ability to do this will depend on whether or not the mechanism to establish river herring catch caps is adopted by the Council in this amendment. The Herring PDT provided a detailed discussion paper addressing the development of river herring catch caps, including a discussion of the potential challenges associated with implementing and monitoring, as well as the potential impacts of catch caps. The Herring PDT's discussion paper can be found in Volume II of Amendment 5 (Appendix VII) and forms the basis for future development of river herring catch caps through a framework adjustment, or through the herring specifications process.

What are the impacts of the measures under consideration in Amendment 5?

The impacts of the management alternatives under consideration in Amendment 5 are assessed and discussed relative to each of the valued ecosystem components (VECs) in the Amendment 5 document. The VECs for consideration in Amendment 5 include: Atlantic Herring; Non-Target Species and Other Fisheries; Physical Environment and Essential Fish Habitat (EFH); Protected Resources; and Fishery-Related Businesses and Communities. VECs represent the resources, areas, and human communities that may be affected by the management measures under consideration in this amendment. VECs are the focus of an EIS since they are the “place” where the impacts of management actions are exhibited.

The impacts of the measures under consideration in Amendment 5 on each of the VECs are generally summarized in this public hearing document. Much of the detailed analyses to support the development of the alternatives/options under consideration in Amendment 5 were provided by the Herring PDT and form the basis for determining the potential impacts of the measures on each of the VECs. The complete analyses and supporting technical documents are included in the appendices to the Amendment 5 document (Volume II). The no action alternative represents status quo conditions for the Atlantic herring fishery management program and forms the basis for comparison and assessment of all management options/alternatives under consideration.

Atlantic Herring: The Atlantic herring fishery is managed through an overall annual catch limit (ACL, reduced from the overfishing limit and acceptable biological catch to address scientific uncertainty and management uncertainty) and sub-ACLs for management areas that are designed to prevent overfishing on individual stock components. The ACLs and sub-ACLs are set through a specifications process every three years, based on the best available scientific information. The Atlantic herring resource is not overfished, and overfishing is not occurring. Due to the ongoing management of the herring fishery through ACLs/sub-ACLs, selection of no action relative to most of the alternatives/options in Amendment 5 would not be expected to directly impact the herring resource. This is because the measures are not likely to affect the amount of herring available for harvest and/or total removals. However, some of the indirect long-term benefits likely to result from the alternatives/options under consideration in Amendment 5 (discussed below) would not be realized if no action is taken.

The long-term benefits to the Atlantic herring resource from the alternatives/options under consideration in Amendment 5 are somewhat indirect but stem from improved catch monitoring and data documenting removals from the fishery. The measures to improve catch monitoring, address river herring bycatch, and/or establish criteria for midwater trawl vessel access to groundfish closed areas should reduce the likelihood for errors in reporting, and consequently, in the calculation of catch statistics. Relative to taking no action, by implementing some of the alternatives/options proposed in Amendment 5, improving catch reporting could lead to better catch data for stock assessments and may also reduce scientific uncertainty over the long-term. This will lead to more effective long-term management of the herring resource.

What are the impacts of the measures under consideration in Amendment 5?

Overall, the alternatives/options proposed in Amendment 5 are likely to have a low positive impact on the herring resource. The measures most likely to affect the herring resource are the alternatives to allocate observer coverage on limited access herring vessels and the management measures to address net slippage. These measures have potential to increase the likelihood of better documenting herring catch (total removals). As catch information improves, discard estimates can be incorporated into future stock assessments for Atlantic herring, thereby potentially reducing some uncertainties associated with the assessment data/models, improving biomass and fishing mortality estimates, and enhancing the Council's ability to successfully manage the herring resource at long-term sustainable levels. The quantification of previously unaccounted mortality could improve the data used in assessments, thereby decreasing scientific uncertainty, albeit to an unknown degree. In addition, reducing the likelihood for errors in the calculation of catch statistics through increased sampling could reduce management uncertainty (uncertainty about catch estimates is a component of management uncertainty), again enhancing long-term management of the Atlantic herring fishery.

Non-Target Species and Other Fisheries: *Non-target species* refers to species other than herring which are landed by federally permitted vessels while fishing for herring. These non-target species may be caught by the same gear while fishing for herring, and may be sold assuming the vessel has proper authorization or permit(s). For the purposes of Amendment 5, the term *other fisheries* refers to those fisheries which are directly affected or related to the operation of the Atlantic herring fishery; namely river herring, the Atlantic mackerel fishery, and the Northeast (multispecies) groundfish fishery. In the Atlantic herring fishery, river herring (alewife, blueback herring) are bycatch species that are not landed when caught. Due to the overlap of the species, measures proposed in Amendment 5 to address river herring bycatch are likely to have similar impacts on shad (American shad and hickory shad). Atlantic mackerel is a primary alternate species caught by herring vessels and is commonly landed. The Northeast multispecies (groundfish) fishery is a primary alternate fishery for some herring vessels, and the areas of operation of both fisheries overlap. The potential impacts of the alternatives/options under consideration in Amendment 5 are evaluated with respect to non-target species and other fisheries throughout the Amendment 5 document.

While many of the measures under consideration in Amendment 5 relate to improving catch reporting in the directed herring fishery, positive impacts (indirect) are expected for non-target species and other fisheries depending on which alternatives/options are ultimately selected. The catch monitoring measures that are likely to have the most positive impact on non-target species and other fisheries are the alternatives that allocate observer coverage on limited access herring vessels and the measures under consideration to address net slippage. The alternatives proposed to allocate observer coverage on limited access herring vessels are intended to improve sampling in the limited access herring fishery and increase precision associated with catch/bycatch estimates of non-target species and other fisheries. There may be indirect long-term benefits that would likely result from improvements to

What are the impacts of the measures under consideration in Amendment 5?

catch sampling, increased sampling, a reduction in unobserved catch, and an increase in the accuracy of bycatch estimates that result from observer sampling. These benefits are discussed throughout the Amendment 5 document and relate to improving catch data for stock assessments and enhancing long-term management. Measures to address net slippage are intended to provide observers with a better ability to fully sample the catch on herring vessels. To the extent that the proposed measures can improve the observers' access to all of the fish in the net, the observers' ability to identify species composition of operational discards and other discarded fish may improve. This may improve estimates of bycatch/discards of non-targeted species in the herring fishery and ultimately lead to a more reliable discard estimate that can be factored into stock assessments and utilized for better managing non-target species.

The management measures to address river herring bycatch were developed by the Council in response to concerns about the impacts of bycatch of this important species in the directed herring fishery. The status of river herring is unknown, although a stock assessment by ASMFC will be finalized in 2012. The ASMFC-managed directed river herring fishery is under a coastwide landings moratorium effective January 1, 2012. States with approved sustainable harvest plans have exemptions from the moratorium. These States include Maine, New Hampshire, New York, North Carolina, and South Carolina. NOAA considers both species, alewife and blueback herring, as species of concern and is reviewing whether they should be listed under the Endangered Species Act. The selection of the no action alternative with respect to river herring measures is not likely to be aligned with the coastwide moratorium and exemption process; however, the measures in place under the ASMFC and States would continue for both shad and river herring if the no action alternative is selected. It is likely, however, that the increased monitoring and data collection benefits or reductions in fishing effort in some times/areas that may be realized under the alternatives under consideration to address river herring bycatch may not be realized under the no action alternative. However, as previously noted, the catch monitoring measures in Amendment 5 are also expected to have positive impacts on river herring and other non-target species.

The alternatives to establish criteria for midwater trawl vessel access to the year-round closed areas may have a positive impact on non-target species and other fisheries, depending on which alternative is selected. The potential for positive impacts is greatest for the groundfish species, as these areas were selected by the Council to reduce groundfish mortality and rebuild groundfish stocks. Catch information presented in the Amendment 5 document indicates that the majority of groundfish bycatch by midwater trawl vessels is haddock, the catch of which on midwater trawl vessels is already managed through a catch cap. The groundfish year-round closed areas were selected and closed to groundfish fishing to reduce fishing mortality and offer protection to groundfish stocks and spawning grounds. Eliminating midwater trawl fishing from these areas could provide a positive impact in that it would further reduce fishing activity in the areas and help to ensure that catch of non-target species and other fisheries in the area is minimized. The closed areas may provide mortality reductions for some

What are the impacts of the measures under consideration in Amendment 5?

non-target species, especially groundfish. This benefit, however, is dependent on individual species life history and migratory patterns along with their susceptibility to fishing gears at different life stages.

Physical Environment and Essential Fish Habitat: Under the no action alternatives/options, no additional management measures would be implemented in Amendment 5. Since these alternatives/options represent the status quo, no changes in the impacts on seabed habitats are expected, because current management measures to protect them would remain in place. Specifically, adverse effects on EFH that result from the herring fishery are estimated to be minimal and temporary, and would continue to be minimal and temporary if these alternatives/options are selected.

Most of the alternatives/options under consideration in Amendment 5 are not expected to affect the amount or location of herring fishing effort where impacts can be predicted, and therefore most of the proposed measures are not likely have any adverse effects on EFH. For instance, the measures under consideration for adjustments to the fishery management plan are generally administrative in nature, and therefore not likely to have an effect on EFH. The two options under consideration that would implement changes to the open access provisions for limited access mackerel vessels may result in some impact to EFH by increasing potential for effort in the areas beyond recent or current levels, however the magnitude of the increase in trips that would be taken would not likely be large and would not change the areas in which operation typically occurs, and therefore any increase in bottom contact resulting from this alternative would have no more than a minimal adverse impact on benthic EFH, so the impacts to EFH is expected to be slight.

The measures under consideration for catch monitoring at sea are also expected to have a neutral impact overall, as effort in the herring fishery is not expected to increase or decrease as a result, and therefore adverse effects on EFH that result from the herring fishery are estimated to be minimal and temporary, and would likely continue to be minimal and temporary if these measures are selected. The impacts of the measures to address river herring bycatch on essential fish habitat are expected to enhance monitoring requirements or close areas; enhanced monitoring requirements are not expected to result in any additional impacts to seabed habitats/EFH, and while predetermined seasonal closures could influence spatial patterns of fishing effort, the changes are difficult to predict. Because seabed contact by midwater trawl gear is rare, it is assumed that herring fishery adverse effects on EFH will continue to be minimal and temporary if monitoring and avoidance areas are implemented. Under Alternative 3 (River Herring Protection), however, a shift in fishing that results in increased effort on Georges Bank during herring spawning (September – November) might lead to an increase in seabed gear contact, and thus an increase in adverse effects to EFH. The management measures to address midwater trawl access would either increase observer coverage in some areas or close areas to midwater trawl vessels; since midwater trawl gear has been determined to only occasionally contact the bottom and its impact on benthic habitats has been determined to be minimal and temporary, the increase in observer coverage

What are the impacts of the measures under consideration in Amendment 5?

would not cause any additional impacts to EFH. Potential changes in the magnitude and location of fishing effort as a result of the closures, and thus potential changes in seabed contact rates, are difficult to predict, however.

Protected Resources: There are numerous protected species that inhabit the environment within the Atlantic Herring FMP management unit, and that, therefore, potentially occur in the operations area of the fishery. These species are afforded protection under the Endangered Species Act of 1973 (ESA; i.e., for those designated as threatened or endangered) and/or the Marine Mammal Protection Act of 1972 (MMPA), and are under NMFS' jurisdiction. Due to this ongoing management of protected resources in the areas in which the herring fishery operates, the selection of no action relative to most of the alternatives/options in Amendment 5 would not be expected to directly impact them. Not selecting the other alternatives/options, however, may result in a small lost opportunity. Overall, most of the impacts of the management measures under consideration to protected resources are likely to be neutral or present a low positive impact, as the measures will not be changing operations within the fishery in a way that would negatively or positively impact them, but may increase observer coverage or close areas, thereby benefitting the species by collecting more information that will improve management in the future or removing them from the possibility of being impacted by herring fishery operations.

From the standpoint of protection and monitoring of protected resources in the area, most of the measures under consideration for adjustments to the fishery management plan are administrative in nature, and therefore not likely to have an effect. The two options under consideration that would implement changes to the open access provisions for limited access mackerel vessels may result in some impact to protected resources by increasing potential for effort in the areas beyond recent or current levels; however, the magnitude of the increase in trips that would be taken would not likely be large and would not change the areas in which operation typically occurs, so the impacts to protected resources is expected to be slight. The measures under consideration for catch monitoring at sea are also expected to have a neutral impact overall, as effort in the fishery is not expected to increase or decrease as a result, although a few measures that would potentially capture more rare events or record information from slipped catch have the potential to present a low positive impact on protected resources. The impacts of the measures to address river herring bycatch on protected resources are harder to predict, as the shift in effort as a result of the measures may or may not concentrate effort where the species overlap; however, most of the impacts are expected to be neutral or have a low positive effect, if observer effort is increased. Finally, the management measures to address midwater trawl access generally have the potential to have a low positive impact on protected resources through the collection of more information during encounters with the herring fishery and in areas which would potentially close as a result of the measure. Some shift in effort may occur as a result of the closures, however, so some impacts are currently unknown or are expected to be neutral as a result.

What are the impacts of the measures under consideration in Amendment 5?

Fishery-Related Businesses and Communities: The Atlantic herring fishery occurs over the Mid-Atlantic shelf region from Cape Hatteras to Maine, including an active fishery in the inshore Gulf of Maine and seasonally on Georges Bank. The Atlantic herring winter fishery is generally prosecuted south of New England during the winter (January-April), and oftentimes as part of the directed mackerel fishery. There is significant overlap between the herring and mackerel fisheries during the winter months, although catches on Georges Bank (Area 3) tend to be relatively low. The herring summer fishery (May-August) is generally prosecuted throughout the Gulf of Maine and Georges Bank as fish are available. Restrictions in Area 1A (including ASMFC days out measures implemented in response to quota reductions) have pushed the fishery in the inshore Gulf of Maine to later months (late summer). Fall fishing (September-December) tends to be more variable and dependent on fish availability. A complete description of the Atlantic herring fishery, including vessels, dealers, processors, and fishing communities, is provided in the Draft Amendment 5 document.

In general, the catch monitoring program proposed in Amendment 5 is intended to improve reporting and documentation of catch – landings and discards – in the Atlantic herring fishery. The long-term impacts of improving catch monitoring is positive for fishery-related businesses and communities. As reporting and compliance improves, management uncertainty may be reduced (uncertainty about catch estimates is a component of management uncertainty) and long-term management of the herring fishery may improve. For example, some of the measures under consideration could reduce the likelihood for misallocating or double counting herring catches. Ultimately, this could lead to better catch data for stock assessments and may also reduce scientific uncertainty over the long-term. To the extent that scientific and management uncertainty can be reduced, additional yield can be made available to the herring fishery. The long-term impacts of reducing scientific and management uncertainty are likely to be positive. Some of the fishery-related impacts expected from the alternatives/options under consideration in the Amendment 5 catch monitoring program are summarized in the following bullets; the Draft Amendment 5 document should be referenced for more thorough analysis and discussion of impacts.

- The impacts of the proposed options to address carrier vessels (Section 3.1.3.1) are expected to be positive for vessels engaged in this activity. For those vessels that already have VMS units on board, there would likely be no cost increase to using that unit to declare into the herring fishery as a carrier vessel.
- The measures to address transfers-at-sea (Section 3.1.3.2) may reduce opportunities for some vessels to participate in the herring fishery by limiting their ability to transfer herring at sea (unless they are carrying herring or participating in a pair trawl operation). Because of the high cost of fuel, the requirement to return to port in order to land their catch could negatively impact herring-related businesses that have permits that would fall under a transfer restriction. The impacts of these options on fishery-related businesses and communities, therefore, may be low negative.

What are the impacts of the measures under consideration in Amendment 5?

- Extending the pre-trip and pre-landing notification requirements (Section 3.1.4) may improve allocation of observers and help ensure the timely sampling of the Atlantic herring fishery. Thus, data collected via the observer program may be more likely to achieve management goals (e.g., CV targets on discard estimates). Subsequently, management uncertainty may be reduced (uncertainty about discard estimates is a component of management uncertainty) and long-term management of the herring fishery may improve. Ultimately, this could lead to better catch data for stock assessments and may also reduce scientific uncertainty over the long-term. To the extent that management uncertainty can be reduced, additional yield can be made available to the fishery. The long-term impacts of reducing management uncertainty are positive for fishery-related businesses and communities.
- Overall, the impacts of the options to change open access permit provisions for limited access mackerel vessels (Section 3.1.6) are expected to be positive in comparison to the no action option, because of increased fishing opportunities and potential reductions in regulatory discards of herring.
- The impacts of measures to improve/maximize sampling at-sea (Section 3.2.2) are not expected to be significant for fishery-related businesses and communities. There may be some operational adjustments required by vessel operators and crew to comply with the new provisions; however, the proposed measures codify many of the practices that are already occurring at-sea when vessels take observers on-board. Interviews with captains and representatives/owners of herring businesses suggest that the proposed steps for improving or maximizing sampling at sea are currently a part of every herring vessels' normal operating practices, agreed upon by the fleet. To the extent that there are any vessels who do not comply, this option will make it easier to mandate these steps, thus making certain that observers on every boat have equal opportunity to fully sample the catch. The measures should improve the vessel owner/operator's understanding regarding expectations and the collection of information by observers during a fishing trip, and ensure safe working conditions for observers on all fishing vessels. For the most part, there should be no differential impacts (by permit category) associated with these options. The direct pecuniary economic impacts of this option on the participants in limited access herring fishery are expected to be minimal. Any economic impacts to the herring fishery will be through increased administrative and regulatory burden.
- Some of the measures under consideration to address net slippage (Section 3.2.3) may have negative impacts on fishery-related businesses and communities. Any economic impacts to the herring fishery will be through increased time spent pumping fish aboard the vessel to be sampled and inspected by a NMFS-approved observer. The pecuniary impacts on the participants in herring fishery are therefore expected to be potentially low negative when compared to taking no action. In general, the option/sub-options proposing a catch deduction/trip termination for slippage events are designed to create a disincentive for limited access herring vessels to slip catch. When choosing to slip a net or bring all fish

What are the impacts of the measures under consideration in Amendment 5?

onboard, vessel operators will compare the costs of bringing those fish aboard to the penalty associated with slippage. The costs of bringing fish aboard which would otherwise be slipped are the extra time spent in this activity and, possibly, decreases in vessel safety during poor operating conditions. To the extent that Option 3 (and Option 4) compromise safety under some circumstances, both the herring fishery and communities would be negatively affected. The extent of impacts would depend on to what extent safety was affected (e.g., injury to loss of life for crewmembers and damage to loss of vessel for the boat) and the result. These costs are the same under all of the options/sub-options under consideration. The overall impact of the options that propose catch deductions and trip termination, in comparison to no action, is therefore expected to be negative.

During final decision-making, the long-term positive impacts of improving catch monitoring must be weighed against the negative impacts of implementing the catch monitoring program (and other measures proposed in Amendment 5) on fishery-related businesses and communities. Some of the measures proposed in Amendment 5 are likely to impose a cost on the industry, and the impacts on fishery-related businesses and communities are therefore likely to be negative. The alternatives/options that are most likely to result in negative impacts on fishery-related businesses and communities are the alternatives to allocate observer coverage on limited access herring vessels, measures to address river herring bycatch, and management measures to establish criteria for midwater trawl vessel access to the year-round groundfish closed areas.

Alternatives to Allocate Observer Coverage on Limited Access Herring Vessels (Section 3.2.1 of Draft Amendment 5)

In general, the potential impacts of the alternatives to allocate observer coverage on limited access herring vessels depend on whether additional funding would be required and if so, which funding option is selected. The impacts of the funding options are discussed in the Draft Amendment 5 document and apply to any alternatives under consideration that would require additional funding. Under Funding Option 1, Alternatives 2-4 are expected to have a neutral effect on fishery-related businesses and communities with respect to the no action alternative. Under Funding Option 2, Alternative 2 is likely to have the largest negative impacts on fishery-related businesses and communities. Alternative 4 is likely to have negative impacts, although the size of these impacts depends on the Council-specified targets/priorities. Alternative 3 is likely to have neutral or low negative impacts on fishery-related business and communities. Options for Observer Service Providers are likely to have neutral impacts on fishery-related businesses.

Relative to the daily operating costs for the Atlantic herring fishery, the cost of an observer is fairly high. For example, paying for a Northeast Fisheries Observer Program (NEFOP) observer would increase the per-day costs of single midwater trawl, pair trawl, purse seine and bottom trawl by 28%, 36%, 67%, and 153% respectively (see analysis in Section 5.2.6 of the Draft

What are the impacts of the measures under consideration in Amendment 5?

Amendment 5 document). However, relative to daily revenues, the cost of an observer is lower; an observer would cost 9%, 9%, 6%, and 22% of average daily revenues for the midwater, pair trawl, purse seine, and bottom trawl vessels respectively. These figures are presented for illustration; it is possible that the type of data required in this fishery would result in higher or lower per-day costs than the \$1,200 amount used to estimate costs of an NEFOP or other NMFS-approved observer.

Alternative 2 requires 100% observer coverage and would create negative impacts on herring-related businesses or communities if Federal funds were not used to pay for the additional observer coverage. Under Funding Option 1 (no action) were selected, the presumption is that Federal funds would be used. Under Funding Option 2, industry funds would be required to cover costs when Federal funds were unavailable; therefore, negative impacts on fishery participants are likely. These increased economic costs would result in less effort, lower landings, and affect the supply of herring bait in other fisheries. It would also negatively affect the businesses that supply (directed) herring-related businesses, and the communities whose economies are partially reliant on them (see the profiles for the Amendment 5 communities of interest, provided in the Draft Amendment 5 document). In 2010, a NEFOP observer costs approximately \$1,200 per day (see previous section for more information). If industry members were required to pay for observers for every fishing day, this would increase operating costs by 28-153%.

Measures to Address River Herring Bycatch (Section 3.3 of Draft Amendment 5)

Relative to the no action alternative, Alternative 2 (River Herring Monitoring/Avoidance, Section 3.3.2) and Alternative 3 (River Herring Protection, Section 3.3.3) are expected to have a negative impact on fishery-related businesses and communities due to the costs associated with increased monitoring and/or area closures.

Under Alternative 2, the extent of the impacts will depend on the option selected for monitoring as well as the availability of Federal funding for observer coverage in the proposed River Herring Monitoring/Avoidance Areas. Option 1, requiring 100% observer coverage in the Monitoring/Avoidance Areas, would likely have the largest negative impact on fishery-related businesses and communities, especially if the industry is required to pay for some or all observer coverage. Option 2 would have a similar negative impact as Option 1 if the sub-option for 100% observer coverage is selected. Option 3 implements either Options 1 or 2 after a catch trigger is reached and would therefore have less impact on fishery-related businesses and communities because the additional monitoring requirements would not become effective until the catch trigger is reached; if the catch trigger is not reached in any area during the fishing year, then no additional monitoring requirements would be applied to the Monitoring/Avoidance Areas. Option 4 represents an approach that builds from some industry-based initiatives and has potential to minimize adverse effects on fishery-related businesses and communities.

What are the impacts of the measures under consideration in Amendment 5?

Under Alternative 3, some/all vessels having a Category A, B, C, or D permit may be prohibited from fishing for, possessing, catching, transferring, or landing herring from the proposed River Herring Protection Areas on all fishing trips using small mesh. The economic impact of this alternative on fishing vessels is the change in profits of these vessels, after accounting for any behavioral changes. Under a spatial closure, the directed herring fleet may undertake different averting behavior to minimize the impact of those spatial closures. Vessels may fish in other areas, likely with lower profits. Vessels may fish in other fisheries, again, likely earning lower profits, or cease fishing operations, in which case they earn zero operating profits. The exact impacts cannot be quantified at this time. However, based on current patterns of use, the impacts are expected to be neutral for vessels that use purse seine gear. The impacts are expected to be negative for vessels that use trawl gear to harvest herring.

Measures to Establish Criteria for Midwater Trawl Access to Groundfish Closed Areas (Section 3.4 of Draft Amendment 5)

Alternatives 1 and 2 are not likely to result in significant impacts on fishery-related businesses and communities. Alternative 1 would maintain the measures in place that currently govern the Atlantic herring fishery and the associated fishery-related businesses and communities. Alternative 2 would eliminate the Closed Area I sampling provisions and the requirement that vessels take an observer on any trip that may enter Closed Area I. This alternative would likely have positive impacts on fishery-related businesses and communities because it increases flexibility and fishing opportunities while decreasing the regulatory burden associated with fishing in Closed Area I.

Under Alternative 3, 100% observer coverage would be required on midwater trawl vessels fishing in the groundfish closed areas. Using \$1,200 per NEFOP-day as the cost of a day of monitoring, the total costs of this observer coverage is estimated at \$254,400. However, based on observer days allocated through the current SBRM process, the midwater trawl fleet is likely to receive about 30% coverage. Therefore, the additional impacts to the fishing industry are likely to be approximately \$169,000 if industry-funded observers are utilized to cover the additional cost in the groundfish closed areas (see Section 5.2 of the Draft Amendment 5 document for more information). If observer coverage is industry-funded, it is possible that herring vessels will avoid fishing in these areas more often (depending on markets, fish availability, fuel prices, and other factors) because fishing in the groundfish closed areas would be more expensive.

The expected impacts of Alternative 4(A) are similar to the expected impacts of Alternative 3 because this option requires 100% observer coverage in all of the groundfish closed areas. Restrictions on fishing practices as a result of the additional requirements are likely to increase costs of fishing slightly. The other potential impact is diminishing flexibility since the vessel operator would be required to provide notice if fishing in any of the year-round closed areas was contemplated. The requirement that a vessel must leave a Closed

What are the impacts of the measures under consideration in Amendment 5?

Area acts as a disincentive to slip a nets; however, this requirement may not promote safety-at-sea.

Alternative 5 proposes to close the year-round groundfish closed areas to midwater trawl vessels participating in the herring fishery. This alternative would reduce revenues for the midwater trawl fishery, and the number of midwater trawl trips would likely also decrease. While 12% of revenues for the midwater trawl fishery were located in the five closed areas (see analysis in Draft Amendment 5 document), this effort and revenue is not likely to completely disappear. Instead, the midwater fleet is likely to fish in other, less productive areas. This will increase costs for the fleet. The purse seine fleet is likely to benefit from additional catch due to the exclusion of trawl gear from the Western Gulf of Maine Closed Area portion of Area 1A.

The tables on the following pages summarize the potential impacts of the management measures under consideration in Amendment 5, when compared to the no action alternative.

Measure Description	Potential Impacts of the Proposed Adjustments to the Fishery Management Plan (Section 3.1)			
	VEC 1: Atlantic Herring	VEC 2: Non-Target Species /Other Fisheries	VECs 3 and 4: Essential Fish Habitat and Protected Resources	VEC 5: Fishery Related Businesses and Communities
Section 3.1.1, Regulatory Definitions: Proposed regulatory definitions for <i>offload</i> and <i>transfer at sea</i>	Low Positive Measures are administrative and not likely to affect the amount of herring for harvest or fishing effort, but may improve catch reporting by clarifying how catch is handled	Neutral Measures are administrative and not likely to affect non-target species encountered in the herring fishery	Neutral Measures are administrative and not likely to affect EFH or Protected Resources that may be encountered by the herring fishery	Low Positive Measures are administrative and not likely to affect the amount of herring for harvest or fishing effort, but may improve catch reporting by clarifying how catch is handled
Section 3.1.2, Administrative/General Provisions: -Expand possession limits to vessels working cooperatively -Eliminate the VMS power down provision - At-sea Dealer Permit	Low Positive Measures are administrative and not likely to affect the amount of herring for harvest or fishing effort, but may improve catch reporting by clarifying how catch is handled	Neutral Measures are administrative and not likely to affect non-target species encountered in the herring fishery	Neutral Measures are administrative and not likely to affect EFH or Protected Resources that may be encountered by the herring fishery	Low Positive Measures are administrative and not likely to affect the amount of herring for harvest or fishing effort, but may improve catch reporting by clarifying how catch is handled
Section 3.1.3, Carrier Vessels: Option 2 - allow carriers to declare in/out through VMS to eliminate the 7-day minimum enrollment Option 3 - dual option allows SQ for carriers with no VMS	Neutral Measures are administrative and not likely to affect the amount of herring for harvest or fishing effort	Neutral Measures are administrative and not likely to affect non-target species encountered in the herring fishery	Neutral Measures are administrative and not likely to affect EFH or Protected Resources that may be encountered by the herring fishery	Low Negative/Low Positive Option 2 would increase flexibility for limited access vessel but may negatively impact open access vessels that would need to purchase (\$1,750-\$3,300) and operate (\$40-\$100/month) a VMS; Option 3 increases flexibility for all vessels without the additional cost of purchasing/operating a VMS
Section 3.1.3.3, Transfers at Sea: Option 2 - Category A and B vessels only Option 3 - prohibit transfers to non-permitted vessels	Neutral Measures are administrative and not likely to affect the amount of herring for harvest or fishing effort	Neutral Measures are administrative and not likely to affect non-target species encountered in the herring fishery	Neutral Measures are administrative and not likely to affect EFH or Protected Resources that may be encountered by the herring fishery	Low Negative Option 2 decreases flexibility of Category C and D vessels; Option 3 decreases flexibility for all herring vessels by prohibiting vessels from selling herring at sea as lobster bait; Options 2 and 3 increase reporting burden but should have minimal negative economic impacts as less than 0.5% of catch is transferred at sea

Measure Description	Potential Impacts of the Proposed Adjustments to the Fishery Management Plan (Section 3.1) Continued			
	VEC 1: Atlantic Herring	VEC 2: Non-Target Species /Other Fisheries	VECs 3 and 4: Essential Fish Habitat and Protected Resources	VEC 5: Fishery Related Business and Communities
Section 3.1.4: Trip Notification Requirements Option 2 - modify/extend pre-trip notification requirements and add VMS gear declaration Option 3 - extend pre-landing notification requirement	Low Positive Herring harvest or fishing effort is not expected to change, but catch accounting and/or the tracking of catch may improve; either may improve allocation of observers and help ensure the timely sampling of the Atlantic herring fishery	Neutral Measures are administrative and not likely to affect non-target species encountered in the herring fishery	Neutral Measures are administrative and not likely to affect EFH or Protected Resources that may be encountered by the herring fishery	Low Positive Options 2 and 3 will increase reporting burden, but measures should provide consistency regarding which vessels are subject to the pre-trip and pre-landing notifications and extending notification requirements will likely improve allocation of observer coverage and management uncertainty can therefore be reduced.
Section 3.1.5: Reporting Requirements for Federally Permitted Dealers Option 2 - require dealers to weigh all fish Sub-Option 2A and 2B– requirement for annual/weekly reporting of catch composition estimation method Sub-Option 2C – vessel owner/operator confirmation of SAFIS	Low Positive/Unknown Measures are administrative and not likely to affect the amount of herring for harvest or fishing effort; weighing of fish on scales should improve catch accounting and reduce uncertainty; impacts of Sub-Options depend on dealer decisions	Low Positive/Unknown Measures are administrative and not likely to affect the amount of harvest or fishing effort; weighing of fish on scales should improve catch accounting and reduce uncertainty; impacts of Sub-Options depend on dealer decisions	Neutral Measures are not likely to affect EFH or Protected Resources; Sub-Options is not likely to improve separation of protected resources	Unknown/Low Negative Sub-Options would require extra time and effort for owner/operators; unclear how this measure will be administered/enforced; likely to be burdensome depending on how the provisions are implemented
Section 3.1.6: Changes to Open Access Provisions for Limited Access Mackerel Vessels in Areas 2/3 Option 2 - 20K pound possession limit of LA mackerel vessels with OA herring permit Option 3 - 10K pound possession limit option for LA mackerel vessels with OA herring permit	Neutral Increases the potential for targeted fishing for herring in SNE and MA areas; should not be a concern for herring because of quota management (controls F) but impact on inshore stock depends on timing of catch and stock component mixing	Unknown Impacts will depend largely on how many vessels/which tiers the Council agrees to apply these options to; will also depend on if additional measures are implemented to monitor or manage the catch of non-target species in the times and areas where vessels with the new mackerel permit may fish	Low Negative Increase in effort may lead to more encounters with EFH and/or Protected Resources, however the effort increase is expected to be minimal based on the magnitude of the overall fishery	Positive Could decrease the occurrence of regulatory discards and increase revenues for vessels that qualify for this permit category; vast majority of mackerel are landed by vessels which are not subject to the 3 mt possession limit; equity issue between LA herring and mackerel permit holders may be resolved by permitting similar levels of non-directed catch in both fisheries

Measure Description	Potential Impacts of the Catch Monitoring at Sea Alternatives (Section 3.2)			
	VEC 1: Atlantic Herring	VEC 2: Non-Target Species /Other Fisheries	VECs 3 and 4: Essential Fish Habitat and Protected Resources	VEC 5: Fishery Related Business and Communities
Section 3.2.1.2, Alternative 2 - 100% Observer Coverage: Funding Option 2 - federal and industry funds States as Service Providers Option 2 - states authorized	<p>Positive</p> <p>Benefits to resource would be highest under this alternative because it increases the likelihood of better documenting herring catch the most; may improve the precision of estimates of discards and/or landed bycatch; long-term effects may have low positive effects; relationship between observer coverage and precision important to consider at high levels of coverage</p>	<p>Positive</p> <p>May be difficult, if not impossible, to generate bycatch estimates for non-target species like river herring with a CV of zero; may increase precision and capture rare events; may not be feasible; analysis of coverage shows increase in precision may not occur; although could shift funding from other fisheries</p>	<p>Neutral/Unknown</p> <p>Measures are not likely to affect EFH; the effects to Protected Resources are dependent on the amount of funding</p>	<p>Potentially High Negative</p> <p>Impacts depend on funding options for observer coverage; would only create negative impacts on herring-related businesses or communities if Federal funds were not used to pay for the additional observer coverage; full cost of 100% coverage of the A/B/C herring fishery is likely to be approximately \$2.5M per year</p>
Section 3.2.1.3, Alternative 3 - Require SBRM Coverage Levels as Minimum: Funding Option 2 - federal and industry funds	<p>Low Positive</p> <p>May improve the precision of estimates of discards and/or landed bycatch; long-term effects may have low positive effects</p>	<p>Unknown</p> <p>May improve estimates of bycatch due to increased sample sizes; although could shift sampling resources away from other fisheries, meaning less precise estimates of bycatch and greater uncertainty of impacts to resource</p>	<p>Neutral</p> <p>Measures are not likely to affect EFH or Protected Resources that may be encountered by the herring fishery</p>	<p>Potentially Low Negative</p> <p>Impacts depend on funding options for observer coverage; would negatively impact herring-related businesses if the industry has to pay for coverage</p>
Section 3.2.1.4, Alternative 4 - Council Specified Targets: Funding Option 2 - federal and industry funds	<p>Low Positive</p> <p>May improve the precision of estimates of discards and/or landed bycatch; long-term effects may have low positive effects</p>	<p>Positive</p> <p>Allocation of additional observer coverage of river herring and haddock may lead to a great understanding and reliability of their bycatch estimates; would not impact the SBRM allocation scheme, and would therefore not cause other fisheries to be under-sampled</p>	<p>Neutral/Low Positive</p> <p>Measures are not likely to affect EFH; Protected Resources may benefit from additional monitoring</p>	<p>Potentially Negative</p> <p>Impacts depend on funding options for observer coverage; would negatively impact herring-related businesses if the industry has to pay for coverage; depends on the Council-specified targets/priorities</p>

Measure Description	Potential Impacts of the Catch Monitoring at Sea Alternatives (Section 3.2) Continued			
	VEC 1: Atlantic Herring	VEC 2: Non-Target Species /Other Fisheries	VECs 3 and 4: Essential Fish Habitat and Protected Resources	VEC 5: Fishery Related Businesses and Communities
Section 3.2.2.2, Additional Measures Improve Sampling: Option 2A - requirements for a safe sampling station Option 2B - requirements for reasonable assistance Option 2C - requirements to provide notice Option 2D - requirements for trips with multiple vessels Option 2E - pair trawl communication Option 2F - visual access to net/codend	Neutral May have little impact on the Atlantic herring resource; several of the measures may provide some additional information on the contents of slipped nets, discards, and landed catch, but likely to be qualitative	Low Positive Several of the measures may provide some additional information on the contents of slipped nets, discards, and landed catch, but likely to be qualitative	Neutral Measures are not likely to affect EFH or Protected Resources	Neutral Minimal direct economic impacts on the herring fishery; the proposed steps for improving or maximizing sampling at sea are currently a part of every herring vessels' normal operating practices, according to interviewed captains; it is unknown how this measure may affect purse seine operations; any economic impacts to the herring fishery will be through increased administrative and regulatory burden, but expected to be slight
Section 3.2.3.2, Measures to Address Net Slippage: Option 2 - require released catch affidavit for slippage events	Unknown May improve accounting of Atlantic herring catch but still represents an estimate; may therefore be redundant and unlikely to affect herring resource	Neutral May improve accounting of non-target species/other fisheries catch, but still represents an estimate	Neutral Released catch affidavits are not likely to affect EFH or Protected Resources	Neutral Minimal impacts on the directed herring fishery
Section 3.2.3.3, Measures to Address Net Slippage: Option 3 - CAI Sampling Provisions	Positive Likely to improve accounting of Atlantic herring catch; may improve statistics used in stock assessment and reduce uncertainty to an unknown degree	Low Positive Likely to improve accounting of non-target species/other fisheries	Low Positive Observer coverage levels are not likely to affect EFH; information gathering for Protected Resources may benefit from increased coverage	Potentially Low Negative Minimal direct economic impacts on the herring fishery; however there may be new challenges associated with bringing operational discards on board for some vessels; increased times spent pumping fish to be sampled and observed; it is unknown how this measure may affect purse seine operations

Measure Description	Potential Impacts of the Management Measures to Address River Herring Bycatch (Section 3.3)			
	VEC 1: Atlantic Herring	VEC 2: Non-Target Species /Other Fisheries	VECs 3 and 4: Essential Fish Habitat and Protected Resources	VEC 5: Fishery Related Businesses and Communities
Section 3.3.2.2.1, 3.3.2.2.2, and 3.3.2.2.3; Alternative 2 - Monitoring/Avoidance Management Options: Option 1 - 100% Observer Coverage Option 2 - CAI sampling provisions Option 3 - trigger based monitoring	Low Positive No direct biological impact on the herring resource; indirect long-term benefits likely to result from improvements to catch sampling, increased sampling, and a reduction in unobserved catch	Positive May improve understanding of river herring encounters in the Atlantic herring fishery through focused monitoring and could lead to possible reductions in river herring mortality if the fleet avoids those areas; more monitoring may mean more bycatch/discards information in specific areas where river herring may be missed; monitoring specific areas instead of across the full range of the species may miss important river herring encounters by the fleet	Low Positive Observer coverage levels are not likely to affect EFH; information gathering for Protected Resources may benefit from increased coverage	Negative Potential for increased costs associated with industry payment for observers; could trigger additional losses, thereby affecting bait supplies; slightly higher regulatory/compliance costs; indirect users of the river herring resource may benefit if higher stock levels of river herring are achieved; uncertainty of trigger mechanisms makes business planning difficult; complexity of trigger reporting options likely to be very challenging for fishery participants to provide accurate catch information in a real-time manner; impact may be mitigated for shrimp fishery and large-mesh bottom trawl vessels if exemption is approved
Section 3.3.2.2.4, Alternative 2 - Monitoring/Avoidance Management Options: Option 4 - two phase bycatch avoidance approach based on SFC project	Neutral No direct biological impact on the herring resource; indirect long-term benefits if the industry can work cooperatively to develop a long-term avoidance strategy	Potentially Positive Could be reductions in river herring mortality in the bimonthly avoidance areas; would need to be adequate incentives in place for the fleet to avoid the areas	Neutral The shift in effort is not likely to affect EFH or Protected Resources	Low Positive Collaboration with trusted institutions may allow herring fishery participants to participate in observations and facilitate monitoring/sampling that will lead to appropriate adjustments of Monitoring/Avoidance Areas and to the development of avoidance strategies; could ultimately reduce costs associated with bycatch avoidance because the industry would likely prioritize cost-effectiveness when developing strategies

Measure Description	Potential Impacts of the Management Measures to Address River Herring Bycatch (Section 3.3)			
	VEC 1: Atlantic Herring	VEC 2: Non-Target Species /Other Fisheries	VECs 3 and 4: Essential Fish Habitat and Protected Resources	VEC 5: Fishery Related Businesses and Communities
Section 3.3.3.2.1, Alternative 3 - River Herring Protection: Option 1 - closed areas	<p>Low Positive</p> <p>Not likely to affect total removals of herring from the fishery; many of the blocks proposed for seasonal closure under Alternative 3 overlap substantially with the herring fishery, suggesting that directed herring fishing effort may be reduced, at least seasonally, in some of the areas; other fishing activity is likely to occur, though, and any short-term benefits to the resource are likely small and difficult to quantify</p>	<p>Positive</p> <p>May provide river herring protection during at-sea migrations, leading to reductions in mortality; fixed protection areas would not provide river herring mortality protection outside of protection areas; open areas could therefore have increased river herring encounter rates, depending on year-to-year variability associated with river herring distribution</p>	<p>Unknown</p> <p>Closed areas levels are not likely to affect EFH; Protected Resources impacts are unknown due to uncertainty in shift of effort</p>	<p>Negative</p> <p>Decreases in revenue in the directed fishery and/or increases in costs of fishing may occur with the closures; trawl fishery participants during the winter season may experience hardship due to the overlap with Protection Areas; may be straight-forward option to enforce; economic and social costs may be incurred though the variability of the hotspots; impact may be mitigated for shrimp fishery and large-mesh bottom trawl vessels if exemption is approved</p>
Section 3.3.3.2.2, Alternative 3 - River Herring Protection: Option 2 - trigger based closed areas	<p>Low Positive</p> <p>Not likely to affect total removals of herring from the fishery; many of the blocks proposed for seasonal closure under Alternative 3 overlap substantially with the herring fishery, suggesting that directed herring fishing effort may be reduced, at least seasonally, in some of the areas; other fishing activity is likely to occur, though, and any short-term benefits to the resource are likely small and difficult to quantify</p>	<p>Low Positive</p> <p>May provide river herring protection during at-sea migrations, reducing mortality; fixed protection areas would not provide river herring protection outside of the areas; open areas could therefore have increased river herring encounter rates, depending on year-to-year variability associated with river herring distribution; triggered closures may not be implemented quickly enough to protect river herring during migration</p>	<p>Unknown</p> <p>Closed areas levels are not likely to affect EFH; Protected Resources impacts are unknown due to uncertainty in shift of effort</p>	<p>Negative</p> <p>Decreases in revenue in the directed fishery and/or increases in costs of fishing may occur with the closures; trawl fishery participants during the winter season may experience hardship due to the overlap with Protection Areas; economic and social costs may be incurred though the variability of the hotspots, complexity of reporting catch under triggers, and uncertainty associated with reaching the triggers during the fishing year</p>

Measure Description	Potential Impacts of the Management Measures to Address Midwater Trawl Access to Groundfish Closed Areas (Section 3.4)			
	VEC 1: Atlantic Herring	VEC 2: Non-Target Species /Other Fisheries	VECs 3 and 4: Essential Fish Habitat and Protected Resources	VEC 5: Fishery Related Businesses and Communities
Section 3.4.1, Status Quo Alternatives 1, 2: No Action/ Pre-CAI Provisions	Neutral/Low Negative Maintain current provisions or adopt pre-CAI provisions; Alt 2 less restrictive by eliminating CAI sampling provisions	Neutral/Low Negative Maintain current provisions or adopt pre-CAI provisions; Alt 2 less restrictive by eliminating CAI sampling provisions	Neutral Maintain current provisions or adopt pre-CAI provisions; Alt 2 less restrictive by eliminating CAI sampling provisions	Potentially Positive No impact (status quo); Alt 2 increases flexibility and fishing opportunities while decreasing the regulatory burden associated with fishing in CAI
Section 3.4.2, Alternative 3: 100% observer coverage in closed areas	Low Positive No direct biological impact on the herring resource; indirect long-term benefits likely to result from improvements to catch sampling, increased sampling, and a reduction in unobserved catch	Low Positive May improve accounting and precision of estimates of discards and/or landed bycatch for non-target species, especially groundfish (i.e. haddock, cod); almost all groundfish catch by herring vessels is haddock, which is already managed under a catch cap	Low Positive Observer coverage levels are not likely to affect EFH; information gathering for Protected Resources may benefit from increased coverage	Potentially Low Negative Impacts depend on funding options for observer coverage; would only create negative impacts on herring-related businesses or communities if Federal funds were not used to pay for the additional observer coverage
Section 3.4.3, Alternative 4: Apply CAI provisions Option 4A - 100% observer coverage Option 4B - Less than 100% observer coverage	Low Positive No direct biological impact on the herring resource; indirect long-term benefits likely to result from improvements to catch sampling, increased sampling, and a reduction in unobserved catch	Low Positive Likely to improve accounting of non-target species/other fisheries; may improve estimation of principle bycatch species (herring, haddock, river herring, etc.)	Low Positive Observer coverage levels are not likely to affect EFH; information gathering for Protected Resources may benefit from increased coverage	Potentially Low Negative Minimal direct economic impacts on the herring fishery; however there may be new challenges associated with bringing operational discards on board for some vessels; unknown how measure may affect purse seine operations; diminishing flexibility may result since the vessel operator would be required to provide notice if fishing in any of the closed areas
Section 3.4.4, Alternative 5: Closed Areas - prohibit midwater trawl fishing in year-round closed areas	Neutral/Low Positive Not likely to affect total removals because of shifts in fishing effort; may be beneficial for herring in Georges Bank closures (CAI and CAII) and in the more inshore closures in the Nantucket Lightship Closure, GOM Closure, and Cashes Ledge Closures; may offer protection for biodiversity rich areas	Positive May offer protection against groundfish mortality extended beyond existing gear exclusions; may be beneficial for haddock in GB closures (CAI and CAII) and a diverse suite of species (such as river herring, shad, and mackerel) in the more inshore closures in the Nantucket Lightship Closure, GOM Closure, and Cashes Ledge Closures; may offer protection for biodiversity rich areas	Neutral/Unknown Closed areas levels are not likely to affect EFH; Protected Resources impacts are unknown due to uncertainty in shift of effort	Negative Would likely reduce revenues for the midwater trawl fishery; number of midwater trawl trips would likely also decrease; midwater fleet is likely to fish in other, less productive areas while purse seine fleet benefits from their exclusion