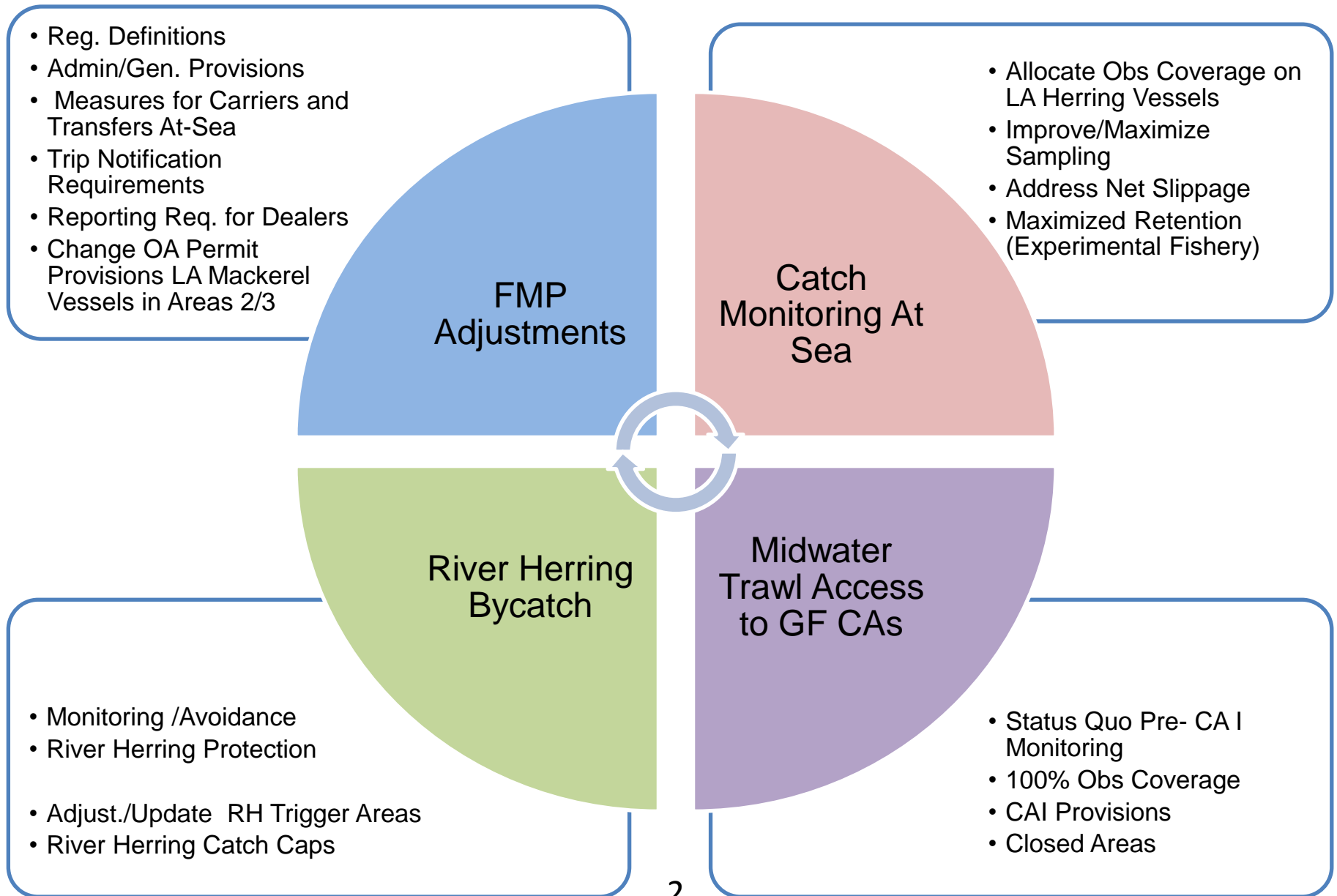


Amendment 5 to the Atlantic Herring Fishery Management Plan

Alternatives to Create a Catch Monitoring Program for the Atlantic Herring FMP



Goal (Am 5):

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 (Am 5):

1. To implement measures to improve the long-term monitoring of catch (landings and bycatch) in the herring fishery;
2. To implement other management measures as necessary to ensure compliance with the MSA;
3. To implement management measures to address bycatch in the Atlantic herring fishery;
4. In the context of Objectives 1 -3 (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.

Catch Monitoring Goals and Objectives

| | | | |
|---|--------|--------------|--|
| ★ | Goal 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 |
| | | Objective 1A | Review federal notification and reporting requirements for the herring fishery to clarify, streamline, and simplify protocols |
| ● | Goal 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 |
| | | Objective 2A | 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; |
| | | Objective 2B | 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; |
| | | Objective 2C | Eliminate reliance on self-reported catch estimates |
| ■ | Goal 3 | | Design a robust program for adaptive management decisions |
| ▲ | Goal 4 | | Determine if at-sea sampling provides bycatch estimates similar to dockside monitoring estimates |
| | | Objective 4A | Assure at-sea sampling of at-sea processors' catches is at least equal to shoreside sampling |
| | | Objective 4B | Reconcile differences in federal and states' protocols for dockside sampling, and implement consistent dockside protocols to increase sample size and enhance trip sampling resolution |

More Detail on the Measures
and Impacts of

Section 3.1:

**Fishery Management Plan
Adjustments**

| Section | Measure | Measure Description | CM Goals/ Objectives Met |
|--------------|--|--|-----------------------------|
| 3.1.1 | Regulatory Definitions | | |
| | Option A | No action option | Status Quo in Fishery |
| | Option B | Establish a regulatory definition of transfer at sea and a regulatory definition of offload | ★ |
| 3.1.2 | Administrative/General Provisions | | |
| | Option A | No action option | Status Quo in Fishery |
| | Option B | Expand possession restrictions to all vessels working cooperatively in the Atlantic herring fishery (to include purse seine vessels and vessels that transfer herring at-sea); and/or eliminate the VMS “power down” provision for limited access herring vessels; and/or establish a new at-sea herring dealer permit | ★ |
| 3.1.3 | Measures to Address Carrier Vessels | | |
| | Option 1 | No action option | Status Quo in Fishery |
| | Option 2 | Require VMS on carrier vessels for declaration purposes and eliminate seven-day enrollment period | None |
| | Option 3 | Dual option for Carriers (VMS or current LOA) | None |

3.1
FMP
Adjustments:
More Detail

| Section | Measure | Measure Description | CM Goals/ Objectives Met |
|----------------|---|---|-----------------------------|
| 3.1.3.3 | Transfers at Sea | | |
| | Option 1 | No action option | Status Quo in Fishery |
| | Option 2 | Allow only vessels participating in the limited access directed fishery for Atlantic herring (Category A or B permits) to transfer herring at sea | ★ |
| | Option 3 | Allow only vessels that possess a federal Atlantic herring permit to transfer herring at sea | ★ |
| 3.1.4 | Trip Notification Requirements | | |
| | Option 1 | No action option | Status Quo in Fishery |
| | Option 2 | Modify and Extend the Pre-Trip Notification Requirements – extend pre-trip notification system and add a gear declaration to pre-trip VMS notifications | ★ ● ▲ |
| | Option 3 | Extend pre-landing notification requirement | ★ ● ▲ |
| 3.1.6 | Require Federally-Permitted Herring Dealers to Accurately Weigh All Fish | | |
| | Option 1 | No action option | Status Quo in Fishery |
| | Option 2 | Require federally-permitted herring dealers to accurately weigh all fish; Potential Sub-Options: <i>Require dealers to annually document how composition of mixed catch is estimated; OR Require dealers to document how composition of mixed catch is estimated for every landings submission; AND/OR Require dealers to obtain vessel representative confirmation of SAFIS transaction record at first point of sale</i> | ★ ● |

3.1
FMP
Adjustments:
More Detail

| Section | Measure | Measure Description | CM Goals/ Objectives Met |
|--------------|---|---|-----------------------------|
| 3.1.7 | Changes to Open Access Provisions for Limited Access Mackerel Vessels in Areas 2/3 | | |
| | Option 1 | No action option | Status Quo in Fishery |
| | 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 | None |
| | 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 | None |

3.1
FMP
Adjustments:
More Detail

Potential Impacts of the Proposed Adjustments to the Fishery Management Plan (Section 3.1)

| Measure Description | 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 | This section to be completed for formal submission of the DEIS (Fall 2011) | 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 | This section to be completed for formal submission of the DEIS (Fall 2011) | 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 | Low Positive Measures are administrative and not likely to affect the amount of herring for harvest or fishing effort, but may improve catch accounting and/or the tracking of catch | Neutral Measures are administrative and not likely to affect non-target species encountered in the herring fishery | This section to be completed for formal submission of the DEIS (Fall 2011) | Neutral 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 | Low Positive Measures are administrative and not likely to affect the amount of herring for harvest or fishing effort, but may improve catch accounting and/or the tracking of catch | Neutral Measures are administrative and not likely to affect non-target species encountered in the herring fishery | This section to be completed for formal submission of the DEIS (Fall 2011) | 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 |

**Potential Impacts of the Proposed Adjustments to the Fishery Management Plan
(Section 3.1) Continued**

| Measure Description | 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 |
|---|--|--|---|--|
| <p>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</p> | <p align="center">Low Positive</p> <p>Measures are administrative and not likely to affect the amount of herring for harvest or fishing effort, but may improve catch accounting and/or the tracking of catch; Option 2 will facilitate the deployment of Observers on herring trips (which may increase quality of herring information) and help enforce gear specific regulations (purse seine/fixed gear only areas); Option 3 will provide information on when/where herring offloads occur and may help increase the information about how catch is handled</p> | <p align="center">Neutral</p> <p>Measures are administrative and not likely to affect non-target species encountered in the herring fishery</p> | <p>This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p align="center">Neutral</p> <p>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</p> |
| <p>Section 3.1.6: Reporting Requirements for Federally-Permitted Dealers Option 2 - require dealers to weigh all fish</p> | <p align="center">Unknown</p> <p>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 contribute better information on fishing mortality to stock assessment models; estimating the weight the weight of fish by volumetrics has the potential to be less accurate than weighing fish on scales</p> | <p align="center">Unknown</p> <p>May have a similar impact on non-target species to that of Atlantic herring; depends on how dealer weighing requirements are implemented</p> | <p>This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p align="center">Unknown</p> <p>Unclear how this will be administered/enforced; likely to be burdensome depending on how the provisions are implemented</p> |
| <p>Section 3.1.7: 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</p> | <p align="center">Neutral</p> <p>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; reduces potential for discards when fishing for mackerel and encountering herring</p> | <p align="center">Low Positive/Negative</p> <p>Increases opportunities and reduces regulatory discards in the mackerel fishery, but also increases the potential for targeted fishing for herring in areas where river herring bycatch may be of concern</p> | <p>This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p align="center">Positive</p> <p>Increases notification and reporting burdens for the vessels that obtain this permit (they are required to comply with Category C provisions); possible impacts to current Category A permit holders through additional competition in the market, but impacts likely to be small given the low levels of mackerel landings by affected vessels and the low proposed possession limits for herring</p> |

More Detail on the Measures
and Impacts of
Section 3.2:
Catch Monitoring At-Sea

| Section | Measure | Measure Description | CM Goals/ Objectives Met |
|---------|---|---|-----------------------------|
| 3.2.1 | Alternatives to Allocate Observer Coverage on LA Herring Vessels | | |
| 3.2.1.1 | Alternative 1: No Action | | |
| 3.2.1.2 | Alternative 2 | 100% Observer Coverage | |
| | Funding Options | Federal funds OR Federal and Industry Funds | ★ □ ● ▲ |
| | State Agencies Service Providers | States authorized as service providers | ★ □ ● ▲ |
| 3.2.1.3 | Alternative 3 | Require SBRM Coverage Levels as Minimum | |
| | Funding Options | Federal funds OR Federal and Industry Funds | ★ □ ● ▲ |
| | State Agencies Service Providers | States authorized as service providers | ★ □ ● ▲ |
| 3.2.1.4 | Alternative 4 | Council Specified Targets | |
| | Funding Options | Federal funds OR Federal and Industry Funds | ★ □ ● ▲ |
| | State Agencies Service Providers | States authorized as service providers | ★ □ ● ▲ |
| | Reviewing/ Allocating Days | Supplemental NEFSC/SBRM analysis OR Herring PDT supplemental analysis | ★ □ ● ▲ |

3.2

Catch
Monitoring
At-Sea:

More Detail

| Section | Measure | Measure Description | CM Goals /Objectives Met |
|----------------|--|---|--------------------------|
| 3.2.2 | Additional Measures to Improve/Maximize Sampling At-Sea | | |
| 3.2.2.1 | Option 1: No Action | | |
| 3.2.2.2 | Option 2: Implement Additional Measures to Improve Sampling | | |
| | Sub-Option 2A | Requirement to provide at-sea Observers with a safe sampling station, a safe method to obtain samples, and a storage space for baskets and sampling gear | ● |
| | Sub-Option 2B | Requirement to provide at-sea Observers with reasonable assistance to enable Observers to carry out their duties | ● |
| | Sub-Option 2C | Requirement 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. | ● |
| | Sub-Option 2D | Requirement for an Observer on any vessel taking on fish wherever/whenever possible | ● |
| | Sub-Option 2E | In pair trawl operations, additional communication requirement between boats if fish are being pumped to both vessels to keep the Observer informed of catch. | ● |
| | Sub-Option 2F | Requirement to provide and assist NMFS certified 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 | ● |

3.2
Catch
Monitoring
At-Sea:
More Detail

| Section | Measure | Measure Description | CM Goals/ Objectives Met |
|---------|---|---|-----------------------------|
| 3.2.3 | Measures to Address Net Slippage | | |
| 3.2.3.1 | Option 1 | No Action | Status Quo in Fishery |
| 3.2.3.2 | Option 2 | Require Released Catch Affidavit for Slippage Events | ★ ● |
| 3.2.3.3 | Option 3 | Closed Area I Sampling Provisions | ★ ● |
| 3.2.3.4 | Option 4 | Catch Deduction (and Possible Trip Termination) for Slippage Events | |
| | Sub-Option 4A | Catch deduction and possible trip termination | ★ ● |
| | Sub-Option 4B | Closed area I provisions with catch deduction and possible trip termination | ★ ● |
| | Sub-Option 4C | Closed area I provisions with trip termination only (10 Events) | ★ ● |
| | Sub-Option 4D | Closed area I provisions with trip termination only (5 Events) | ★ ● |

3.2

Catch
Monitoring
At-Sea:

More Detail

| Section | Measure | Measure Description | Goals/Objectives Met |
|----------------|---|--|------------------------------|
| 3.2.4 | Maximized Retention Alternative (Experimental Fishery) | | |
| 3.2.4.1 | Alternative 1 | No Action | Status Quo in Fishery |
| 3.2.3.2 | Alternative 2 | Evaluation of Maximized Retention Through the Annual Issuance of Exempted Fishing Permits | Unclear |

3.2

Catch
Monitoring
At-Sea:

More Detail

Potential Impacts of the Catch Monitoring at Sea Alternatives (Section 3.2)

| Measure Description | 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 |
|---|---|---|---|--|
| <p>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> | <p style="text-align: center;">Positive</p> <p>May improve the precision of estimates of discards and/or landed bycatch; may prevent premature fishery closures or ACL/sub-ACL overages, so Atlantic herring stock abundance may remain above management targets; long-term effects may have low positive effects</p> | <p style="text-align: center;">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 be financially challenging/ not be feasible; generally low positive impact from significant increase in coverage and sampling; although could shift funding from other fisheries</p> | <p style="text-align: center;">This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p style="text-align: center;">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> |
| <p>Section 3.2.1.3, Alternative 3 - Require SBRM Coverage Levels as Minimum: Funding Option 2 - federal and industry funds</p> | <p style="text-align: center;">Low Positive</p> <p>May improve the precision of estimates of discards and/or landed bycatch; may prevent premature fishery closures or ACL/sub-ACL overages, so Atlantic herring stock abundance may remain above management targets; long-term effects may have low positive effects</p> | <p style="text-align: center;">Potentially Low Positive</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 style="text-align: center;">This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p style="text-align: center;">Potentially Low Negative</p> <p>Would negatively impact herring-related businesses if the industry has to pay for coverage; extra coverage could prove that the herring fishery is equivalent to other types of fishing, however</p> |
| <p>Section 3.2.1.4, Alternative 4 - Council Specified Targets: Funding Option 2 - federal and industry funds</p> | <p style="text-align: center;">Low Positive</p> <p>May improve the precision of estimates of discards and/or landed bycatch; may prevent premature fishery closures or ACL/sub-ACL overages, so Atlantic herring stock abundance may remain above management targets; long-term effects may have low positive effects</p> | <p style="text-align: center;">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 style="text-align: center;">This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p style="text-align: center;">Potentially Negative</p> <p>Would negatively impact herring-related businesses if the industry has to pay for coverage; extra coverage could prove that the herring fishery is equivalent to other types of fishing, however</p> |

**Potential Impacts of the Catch Monitoring at Sea Alternatives
(Section 3.2) Continued**

| Measure Description | 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 |
|---|---|---|---|---|
| <p>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</p> | <p>Potentially Low Positive</p> <p>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</p> | <p>Potentially Low Positive</p> <p>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</p> | <p>This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p>Neutral/Potentially Low Negative</p> <p>Minimal direct economic impacts on the herring fishery; it is unknown how this measure may affect purse seine operations; impacts likely from increased administrative and regulatory burden</p> |
| <p>Section 3.2.3.2, Measures to Address Net Slippage: Option 2 - require released catch affidavit for slippage events</p> | <p>Potentially Neutral</p> <p>May improve accounting of Atlantic herring catch but still represents an estimate; may therefore be redundant and unlikely to affect herring resource</p> | <p>Potentially Neutral</p> <p>May improve accounting of non-target species/other fisheries catch, but still represents an estimate</p> | <p>This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p>Neutral</p> <p>Minimal impacts on the directed herring fishery</p> |
| <p>Section 3.2.3.3, Measures to Address Net Slippage: Option 3 - CAI Sampling Provisions</p> | <p>Low Positive</p> <p>Likely to improve accounting of Atlantic herring catch; may reduce occurrence of slippage events and improve statistics used in stock assessment; indirect long-term benefits to the resource that may result from improvements to catch sampling, a reduction in unobserved catch (i.e., fish not brought on board), and an increase in the accuracy of bycatch estimates</p> | <p>Low Positive</p> <p>Likely to improve accounting of non-target species/other fisheries; may improve estimation of principle fishery bycatch species (herring, haddock, river herring, etc.)</p> | <p>This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p>Potentially Low Negative</p> <p>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</p> |

**Potential Impacts of the Catch Monitoring at Sea Alternatives
(Section 3.2) Continued**

| Measure Description | 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 |
|---|---|--|--|--|
| <p>Section 3.2.3.4, Measures to Address Net Slippage: Option 4 - catch deduction (and possible trip termination) for slippage events Option 4A -catch deduction, possible trip termination Option 4B - with CAI provisions Option 4C - with CAI provisions (10 events) Option 4D - with CAI provisions (5 events)</p> | <p align="center">Neutral/Potentially Low Positive</p> <p>Effects difficult to predict; sub-options that include CAI sampling provisions and sub-options that reduce occurrence of slippage events more likely to have positive impact</p> | <p align="center">Neutral/Potentially Low Positive</p> <p>Effects difficult to predict; catch deduction not likely to have an impact on non-target species /other fisheries; trip termination could reduce the amount of effective fishing effort in an area throughout the course of the fishing season, thereby reducing bycatch and mortality of non-target species</p> | <p align="center">This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p align="center">Negative</p> <p>Trip termination increases costs to participants; sub-ACL deductions could reduce catch and revenue, although this is likely to have an effect only in Areas 1A and 1B unless sub-ACLs are fully utilized in other areas; aggregate revenues expected to decline by \$12,000-\$15,000 per slippage event in areas where ACLs are fully utilized; potential safety concerns with trip termination and measures that are perceived as punitive</p> |
| <p>Section 3.2.4.2, Alternative 2: Evaluation of maximized retention through the annual issuance of exempted fishing permits</p> | <p align="center">Unknown</p> <p>MR accounting of catch greatly improves calculation of catch statistics and quantification of herring catch if it applied in concert with a portside sampling program to determine the catch composition of landings; benefits not likely to be fully realized because State programs cannot be relied on over the long-term</p> | <p align="center">Unknown</p> <p>MR accounting of catch greatly improves calculation of catch statistics and quantification of non-target species/other fisheries catch if it applied in concert with a portside sampling program to determine the catch composition of landings; benefits not likely to be fully realized because State programs cannot be relied on over the long-term</p> | <p align="center">This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p align="center">Unknown</p> <p>Impacts depend on the details of the experimental fishery; if conducted, NMFS should evaluate the impacts of experimental fishery on participants; need to identify a control group and an experimental group (no incentives to participate at this time)</p> |

More Detail on the Measures
and Impacts of
Section 3.3:
River Herring Bycatch

| Section | Measure | Measure Description | CM Goals/ Objectives Met |
|---------|--|---|---|
| 3.3.1 | Alternative 1: No Action | | |
| 3.3.2 | Alternative 2: River Herring Monitoring/Avoidance | | |
| | Option 1 | 100% Observer coverage in monitoring/avoidance areas (see images in Amendment 5 Draft Document - Volume I); Sub-options: for measure to apply to only A/B/C vessels OR to all vessels (A/B/C/D) | Will depend on the measures selected (★ ■ ● ▲) |
| | Option 2 | Apply closed area I sampling provisions Sub-options: Requirement for 100% Observer coverage OR less than 100% Observer coverage OR for measure to apply to only A/B/C vessels OR to all vessels (A/B/C/D) | |
| | Option 3 | Trigger based monitoring approach Sub-options for two different catch reports, AND for management measures to apply when trigger is reached (Option 1 or 2 under 3.3.2) | |
| | Option 4 | Two phase bycatch avoidance approach based on SFC/SMASST/DMF project | |

| Section | Measure | Measure Description | CM Goals/ Objectives Met |
|---------|--|--|---|
| 3.3.3 | Alternative 3: River Herring Protection | | |
| | Option 1 | Closed areas; Sub-option for declaring out of fishery | Will depend on the measures selected (★ ■ ● ▲) |
| | Option 2 | Trigger-based closed areas; Sub-options for river herring catch triggers; reporting options; and management measures that would apply when trigger is reached | |
| 3.3.4 | | Mechanism for Adjusting/Updating River Herring Areas/Triggers | |
| 3.3.5 | | River Herring Catch Caps | |

Potential Impacts of the Management Measures to Address River Herring Bycatch (Section 3.3)

| Measure Description | 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 |
|---|--|--|---|--|
| <p>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</p> | <p>Low Positive</p> <p>Increased monitoring may provide additional information on bycatch/discards of Atlantic herring; impacts likely to be similar to those identified for other measures that consider similar monitoring/sampling provisions</p> | <p>Low Positive</p> <p>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</p> | <p>This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p>Negative</p> <p>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</p> |
| <p>Section 3.3.2.2.4, Alternative 2 - Monitoring/Avoidance Management Options: Option 4 - two phase bycatch avoidance approach based on SFC project</p> | <p>Neutral</p> <p>Project not likely to impact herring resource, as vessels are targeting herring and fishing under sub-ACLs; Atlantic herring may benefit if their occupied areas are potentially avoided (by time or distance) when the river herring threshold level is reached</p> | <p>Potentially Positive</p> <p>Areas with co-occurring small pelagic species and groundfish may be avoided (by time or distance) when river herring are encountered at a threshold level; possible reductions in river herring/shad mortality; areas outside avoidance areas could have increased rates of river herring encounters by the fishery, if areas selected for avoidance do not reflect year-to-year variability in river herring distribution; maintaining meaningful threshold values may be problematic as the size of the river herring stock changes</p> | <p>This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p>Potentially Positive</p> <p>Would enable herring fishermen to avoid river herring mortality if encounters are communicated quickly and consistently; also demonstrates fishery's responsiveness to concerns about river herring; positive impacts from collaboration with trusted institutions that will allow fishermen to participate in observations and facilitate monitoring/sampling that will lead to appropriate adjustments of Monitoring/Avoidance Areas and the development of avoidance strategies; increased economic costs if industry must pay for Observers</p> |

**Potential Impacts of the Management Measures to Address River Herring
Bycatch (Section 3.3)**

| Measure Description | 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 |
|--|--|---|--|--|
| <p>Section 3.3.3.2.1, Alternative 3 - River Herring Protection: Option 1 - closed areas</p> | <p align="center">Low Positive</p> <p>May provide mortality protection for co-occurring Atlantic herring, depending on herring life history, migratory patterns, and susceptibility to fishing gears at different life stages</p> | <p align="center">Potentially 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; potential negative impacts on mackerel and other fishery participants if areas are closed to all small mesh fishing</p> | <p align="center">This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p align="center">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</p> |
| <p>Section 3.3.3.2.2, Alternative 3 - River Herring Protection: Option 2 - trigger based closed areas</p> | <p align="center">Low Positive</p> <p>May provide mortality protection for co-occurring Atlantic herring, depending on herring life history, migratory patterns, and susceptibility to fishing gears at different life stages; areas with Atlantic herring would be avoided (by time or distance) when river herring are encountered at some threshold level</p> | <p align="center">Potentially 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; potential negative impacts on mackerel and other fishery participants if areas are closed to all small mesh fishing</p> | <p align="center">This section to be completed for formal submission of the DEIS (Fall 2011)</p> | <p align="center">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> |

More Detail on the Measures
and Impacts of

Section 3.4:

**Midwater Trawl Access to
Groundfish Closed Areas**

3.4

Midwater Trawl Access to GF CAs

| Section | Measure | Measure Description | CM Goals/ Objectives Met |
|---------|---------------|---|--|
| 3.4.1 | Alternative 1 | Current criteria for midwater trawl vessel access to the groundfish closed areas would be maintained | Status Quo in Fishery Will depend on the measures selected (★ ◻ ● ▲) |
| 3.4.1 | Alternative 2 | 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 | |
| 3.4.2 | Alternative 3 | 100 % Observer Coverage | |
| 3.4.3 | Alternative 4 | Apply Closed Area I Provisions | |
| | Option 4A | Require 100% Observer coverage on all trips in groundfish year round closed areas when fishing may occur | |
| | Option 4B | Less than 100% Observer coverage | |
| 3.3.5 | Alternative 5 | Closed Areas | |

Potential Impacts of the Management Measures to Address Midwater Trawl Access to Groundfish Closed Areas (Section 3.4)

| Measure Description | 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 No impact (status quo) | Neutral No impact (status quo) | This section to be completed for formal submission of the DEIS (Fall 2011) | 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 | Neutral May increase sampling in some areas but not likely to have an impact on the herring resource | 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 | This section to be completed for formal submission of the DEIS (Fall 2011) | 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 | Potentially Low Positive May improve accounting of Atlantic herring catch in groundfish closed areas; indirect long-term benefits to the resource that may result from improvements to catch sampling, a reduction in unobserved catch (i.e., fish not brought on board), and an increase in the accuracy of bycatch estimates | Low Positive Likely to improve accounting of non-target species/other fisheries; may improve estimation of principle bycatch species (herring, haddock, river herring, etc.) | This section to be completed for formal submission of the DEIS (Fall 2011) | 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 | Low Positive 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 | This section to be completed for formal submission of the DEIS (Fall 2011) | 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 |

Council Action: Decision Document

1. Action re. measures proposed for elimination?

- A. ACL/sub-ACL Monitoring Alts (Section 3.1.5, p. 20);
Weekly VTR Reporting (Section 3.1.2, Option 2D)
 - Addressed through NMFS rulemaking (Sept 2011)
- B. Option for funding catch monitoring program (observer coverage) from Federally-permitted dealers
 - (all alternatives Section 3.2.1, p. 28)
 - Feasibility issues/legal concerns
- C. Option 2G to require flow scales on processing vessels
 - (Section 3.2.2.2, p. 37)
 - Does not seem necessary at this time

AP consensus – support elimination of these measures

Council Action: Decision Document

2. Action re. sub-options proposed for addition?

A. Three sub-options for Reporting Requirements for Federally-Permitted Dealers

- (Sub-Options 2A/2B/2C, described in Section 3.1.6.2, p. 26)
- May help clarify administration/enforcement
- Consistent with measures under consideration in Amendment 14 to the Mackerel FMP (MAFMC)

**AP Vote (5 Yes, 4 No) – support inclusion
of these three sub-options**

Council Action: Decision Document

2. Action re. sub-options proposed for addition? (Continued)

B. Sub-options for Catch Deduction and Possible Trip Termination for Slippage Events

- (Sub-Options 4B/4C/4D, Section 3.2.3.4, p. 39)
- Herring PDT concerns expressed about original option – intent/impacts
- Legal concerns re. catch deduction and potential to trigger AMs

AP did not reach consensus or vote; individual AP members provided comments (see AP Report)

Council Action: Decision Document

3. Approval of Draft EIS for submission/public hearings?

- Unfinished sections to be completed (EFH, Protected Resources, Cumulative Effects)
- Additional information/analyses to be provided at the Council's request
- Any further clarification?

4. Selection of preferred alternatives?

- At the Council's discretion
- PA's can be selected for some sections and not others, or for all/none