

Industry-Funded Monitoring Omnibus Amendment

Proposed Action

**New England Fishery Management Council
Herring Advisory Panel and Committee Meetings
April 4-5, 2017**

This document describes preferred omnibus alternatives selected by the New England Fishery Management Council (NEFMC) at its November 2016 meeting and the Mid-Atlantic Fishery Management Council at its December 2016 meeting. This document also describes the preferred herring coverage target alternatives selected by the NEFMC at its January 2017 meeting. The preferred omnibus alternatives and the preferred herring coverage target alternatives comprise the proposed action.

1.1.1 Omnibus Alternative 2: Industry-Funded Monitoring Programs ***(Preferred Alternative)***

Under Omnibus Alternative 2, there would be an established, standardized structure for new industry-funded monitoring programs that would apply to all New England and Mid-Atlantic fishery management plans (FMPs) that choose to use industry funding to increase monitoring via new programs (the existing scallop and groundfish programs would not be affected by this action). This industry-funded monitoring program structure would include the following components:

- Standard cost responsibilities associated with industry-funded monitoring for NMFS and the fishing industry,
- Process for FMP-specific industry-funded monitoring to be implemented via an **amendment and revised** via a framework adjustment,
- Standard administrative requirements for industry-funded monitoring service providers,
- Process to prioritize new industry-funded monitoring programs in order to allocate available Federal resources for industry-funded monitoring across all FMPs, **including the type of weighing approach and the timing of revising the weighing approach**, and
- Process for FMP-specific monitoring set-aside programs to be implemented via a future framework adjustment action. No individual FMP would be subject to an industry-funded monitoring program as a result of implementation of the Omnibus alternatives proposed in this action. Rather, any FMP that wishes to develop an industry-funded monitoring program, and optionally, a monitoring set-aside program would need to develop the program that meets the specifications of this action in a separate framework.

1.1.1.1 Standard Cost Responsibilities

Omnibus Alternative 2 would establish standard cost responsibilities between NMFS and the industry for supporting monitoring programs targeting coverage above the Standardized Bycatch Reporting Methodology (SBRM). The cost responsibilities described below are already in operation in the Atlantic Sea Scallop and NE Multispecies FMPs, although the cost responsibilities are not explicitly defined in those FMPs.

NMFS Cost Responsibilities

NMFS would be responsible for funding the costs to set standards for, monitor performance of, and administer industry-funded monitoring programs. These program elements would include:

- The labor and facilities costs associated training and debriefing of monitors
- NMFS-issued gear (e.g., electronic reporting aids used by human monitors to record trip information)
- Certification of monitoring providers and individual monitors; performance monitoring to maintain certificates
- Developing and executing vessel selection
- Data processing (including electronic monitoring video audit, but excluding electronic video review)
- Costs associated with liaison activities between service providers, and NMFS, Coast Guard, Councils, sector managers and other partners.

Industry Cost Responsibilities

The industry would be responsible for funding all other costs of the monitoring program. These program elements and activities would include, but are not limited to:

- Costs to the provider for deployments and sampling (e.g., travel and salary for observer deployments and debriefing)
- Equipment, as specified by NMFS, to the extent not provided by NMFS (e.g., electronic monitoring system)
- Costs to the provider for observer time and travel to a scheduled deployment that doesn't sail and was not canceled by the vessel prior to the sail time
- Costs to the provider for installation and maintenance of electronic monitoring systems
- Provider overhead and project management costs (e.g., provider office space, administrative and management staff, recruitment costs, salary and per diem for trainees)
- Other costs of the provider to meet performance standards laid out by a fishery management plan

NMFS costs to administer industry-funded monitoring would be fully funded with Federal funds. The industry would be responsible for its costs; unless it was determined that appropriately-designated Federal funds were also available to offset industry cost responsibilities. If NMFS has funds to cover its administrative cost responsibilities with additional funds remaining, then NMFS may be able to help cover some of the industry's cost responsibilities, such as through reimbursement. The administrative mechanism by which industry cost responsibilities could be offset using available Federal funding can be used in conjunction with Omnibus Alternative 2. (*See Sections 1.1.3 and 1.1.4 in draft EA.*)

1.1.1.2 Framework Adjustment Process

Omnibus Alternative 2 would include the ability for Councils to implement new industry-funded monitoring programs, including at-sea monitoring, dockside monitoring, or

electronic monitoring, through **amendments and revise programs through** framework adjustments to the relevant FMP. ~~Omnibus Alternative 2 would provide the option to implement new industry-funded monitoring programs via a framework adjustment, but it would not require any particular new industry-funded monitoring programs. Under Omnibus Alternative 2, Councils would retain the ability to implement new industry-funded monitoring program via the amendment process. If Omnibus Alternative 2 was not selected by the Councils, Councils would not have the option to use a framework adjustment when suitable~~ **to revise FMP-specific industry-monitoring programs**, and a full FMP amendment would be required to ~~implement~~ **revise** industry-funded monitoring programs for any New England and Mid-Atlantic fisheries, excluding existing industry funded monitoring programs in the Scallop and Multispecies FMP, ~~and any program developed in this action for the Herring or Mackerel, Squid, and Butterfish FMPs.~~

1.1.1.3 Monitoring Service Providers

Omnibus Alternative 2 would modify the existing SBRM observer service provider (at 50 CFR 648.11(h) and (i)) approval and certification process to also apply to observer and dockside service providers for all New England and Mid-Atlantic FMPs. The selection of Omnibus Alternative 2 would not implement any new at-sea observer or dockside monitoring programs, but would only implement a process and standards to approve and certify monitoring service providers.

Monitoring service provider regulations for electronic monitoring programs. Monitoring service provider regulations for electronic monitoring programs will be based on regulations for existing regional and national electronic monitoring programs. Electronic monitoring service provider regulations are currently in place for the NE multispecies fishery (*See Appendix 2 in draft EA*). The Greater Atlantic and West Coast Regions will be working together to develop consistent electronic monitoring service provider regulations. (*West Coast Region published a proposed rule (FR 61161) on September 6, 2016*).

Special considerations for service provider requirements

In order to minimize costs, the overarching service provider requirements for all industry-funded programs, including at-sea, dockside, and electronic monitoring programs, are proposed to be the same for all FMPs. This means that the overarching industry-funded monitoring service provider regulations will be standardized for all FMPs, whether industry funding is necessary to support statutory monitoring requirements (Magnuson-Stevens Act, Marine Mammal Protection Act (MMPA), Endangered Species Act (ESA)), or monitoring coverage above statutory requirements. However, the Amendment would allow individual FMPs to deviate from the overarching monitoring service provider requirements on an FMP-specific basis.

1.1.1.4 Prioritization Process

If sufficient Federal funding was not available to cover NMFS cost responsibilities, Omnibus Alternative 2 includes a prioritization process for coverage targets above SBRM and independent from ESA and MMPA requirements in order to allocate available Federal funding across FMPs. Prioritization criteria would enable the Council and/or NMFS to decide what is funded. The prioritization process would not apply to the existing scallop and groundfish industry-funded monitoring programs as funding for those programs would be different than any new industry-funded monitoring programs.

NMFS cannot approve and implement monitoring requirements for which it does not have available Federal funding to cover NMFS cost responsibilities. NMFS can, however, approve coverage targets associated with industry-funded monitoring programs for FMPs with the understanding that annual funding available to cover NMFS cost responsibilities will dictate realized coverage levels. When there is no Federal funding available to cover NMFS cost responsibilities above SBRM coverage, then no industry-funded monitoring program could operate.

In the event that no Federal funding is available, and the IFM program does not allow for vessels to be issued waivers to exempt them from industry-funded monitoring requirements, the fishing effort will be reduced to match available monitoring. However, if waivers are able to be issued then fishing could continue in the absence of additional monitoring.

1.1.1.5 *Omnibus Alternative 2.2: Council-led Prioritization Process for Industry-funded Monitoring Programs (Preferred Alternative)*

Alternative 2.2 would require the Regional Administrator and Science and Research Director to inform the Councils of NMFS's available funding to achieve targets for industry-funded monitoring coverage, including the level available for NMFS's infrastructure costs and any additional funds to offset industry costs, as defined under Alternative 2. If available funding in a given year was sufficient, funds would be distributed to fully implement the industry-funded monitoring coverage targets specified in each FMP. If available funding was not sufficient, the Councils would apply the weighting approach below to determine the best prioritization of industry-funded monitoring in order to meet regional priorities and make recommendations to NMFS. Funding for SBRM, ESA, and MMPA observer coverage would not be changed by this measure.

~~The Councils will need to identify a weighting approach to prioritize industry-funded monitoring programs under the Council-led prioritization process alternative in this action.~~ **Both Councils identified** ~~The Councils may want to consider specifying an equal weighting approach~~ **as the preferred alternative** in this action, acknowledging that a more complex weighting approach could be developed in the future. An example of an equal weighting approach would be funding both industry-funded monitoring programs at 70%, if only 70% of the Federal funding needed to administer both programs was available.

Revising the prioritization process (e.g., change from Council-led to NMFS-led) could be done in a future framework action. But, the Councils could also change the weighting approach for the Council-led prioritization process by considering a new weighting approach at a public meeting, where public comment is taken, and asking NMFS to publish a notice or rulemaking modifying the weighting approach. Both Councils would have to agree to any weighting approach. Establishing an equal weighting approach in this action would ensure that the management objectives of both Councils are initially given equal weight and allow time for more complex weighting systems to be developed without delaying implementation.

The Council identified readjusting the weighting approach on an as-needed basis as the preferred alternative in this action for revising the timing approach. The weighting approach would occur on an as-needed basis (i.e., whenever new IFM programs are approved, or whenever existing IFM programs are adjusted or terminated), with the adjusted prioritization implemented in time for the next SBRM cycle. Once the prioritization was developed it would be in place indefinitely, until the next industry-funded monitoring program was finalized.

Rationale: This alternative would allow both Councils to work together in determining a weighting approach that best achieves priorities among new IFM programs. The ability to adjust the equal weighting approach, when needed, provides flexibility to the Councils in the event additional IFM programs are developed, existing IFM programs are revised, or priorities have changed.

1.1.1.6 Omnibus Alternative 2.6: Monitoring Set-Aside (Preferred Alternative)

Omnibus Alternative 2.6 would include general language in the regulations of each FMP that would allow monitoring set-aside provisions to be implemented via a framework adjustment. A monitoring set-aside program would devote a portion of the annual catch limit (ACL) from a fishery to offset the industry cost responsibilities for at-sea, electronic, or dockside monitoring. All potential monitoring set-aside programs should be considered as an alternative to off-set monitoring cost, and should not be expected to fully cover monitoring costs. Most fisheries will not have enough value, capacity, or abundance/availability (i.e., stock size, distribution, etc.) to fully cover the costs of intense monitoring goals.

One monitoring set-aside model for a fishery that uses possession limits could consist of reserving some percentage of the ACL (e.g., up to 3 percent) to be allocated to certain vessels to help off-set the additional monitoring costs. Any vessel in that fishery that is selected to carry an at-sea observer would be granted a certain amount of pounds from the monitoring set-aside allocation to land above the possession limit. The revenue obtained from the sale of the additional landings would help offset the vessel's costs of carrying an at-sea observer. Preliminary analysis suggests that set-asides for monitoring will work best in profitable fisheries and when only a modest increase in monitoring is desired (like scallops).

Absent this measure, a full FMP amendment would be required for all fisheries intending to implement a monitoring set-aside to defray industry costs for monitoring programs. Adopting this measure would not implement a monitoring set-aside for any individual FMP. Rather, it would expedite the development of monitoring set-aside provisions for FMPs in future framework adjustments.

Under Omnibus Alternative 2.6, the details and impacts analysis of any monitoring set-aside program would be specified and/or modified in a subsequent framework adjustment to the relevant FMP. Additional NEPA analysis would be required for any action implementing and/or modifying monitoring set-aside provisions, regardless if it required a framework adjustment or full amendment.

Rationale: This alternative allows for a streamlined process to implement monitoring set-asides in individual FMPs in the event the Councils deem this to be an appropriate tool to fund industry-funded monitoring. Monitoring set-asides may help offset industry cost responsibilities associated with industry-funded monitoring.

1.1.2 Herring Alternative 2: Coverage Target Specified for Industry-Funded Monitoring Program (*Preferred Alternative*)

Under Herring Alternative 2, the NEFMC would specify the details of an industry-funded monitoring program for the Herring FMP. These details may include, but are not limited to: (1) Level and type of coverage target, (2) rationale for level and type of coverage, (3) minimum level of coverage necessary to meet coverage goals, (4) consideration of coverage waivers if coverage target cannot be met, (5) process for vessel notification and selection, (6) process for payment of industry cost responsibilities, (7) standards for monitoring service providers, and (8) any other measures necessary to implement the industry-funded monitoring program. Additional NEPA analysis would be required for any subsequent FMP framework adjustment action implementing and/or modifying the specified industry-funded monitoring programs.

The realized coverage level in a given year would be determined by the amount of funding available to cover NMFS cost responsibilities in a given year. The realized coverage for the fishery in a given year would fall somewhere between no additional coverage above SBRM and the specified coverage target.

Herring Alternative 2 would allow several sub-options to apply to the herring coverage target alternatives. Sub-options could apply to any of the alternatives except Herring Alternative 2.5.

- Sub-Option 1 (*Preferred Alternative*) would allow vessels to be issued waivers to exempt them from industry-funded monitoring requirements, for either a trip or the fishing year, if coverage was unavailable due to funding or logistics. Selection of this

sub-option preserves the NEFMC's intent for additional monitoring in the herring fishery, but would not prevent vessels from participating in the herring fishery if monitoring coverage was not available. Should the NEFMC not select Sub-Option 1, the fishing effort would be reduced to match the available level of monitoring (i.e., the fleet would not fish if NMFS does not have funding for the program). Reducing fishing effort to match available monitoring may lack sufficient justification and be inconsistent with National Standards.

- Sub-Option 2 (***Preferred Alternative***) would exempt a wing vessel pair trawling with another vessel from industry-funded monitoring requirements, provided the vessel does not pump or carry any fish onboard.
- Sub-Option 3 would require that industry-funded monitoring requirements expire two years after implementation.
- Sub-Option 4 (***Preferred Alternative***) would require the NEFMC to examine the results of any increased coverage in the herring fishery two years after implementation, and consider if adjustments to the coverage targets are warranted. Depending on the results and desired actions, subsequent action to adjust the coverage targets could be accomplished via a framework adjustment or an amendment to the Herring FMP, as appropriate.
- Sub-Option 5 (***Preferred Alternative***) would exempt trips that land less than 25 mt of herring from industry-funded monitoring requirements.

In addition to the standard monitoring and service provider requirements specified in Omnibus Alternative 2, Herring Alternative 2 would specify that requirements for industry-funded observer and at-sea monitors include a High Volume Fishery (HVF) certification for the herring fishery. The existing NEFOP HVF certification training program would be available to industry-funded observers and NEFOP would develop a new HVF certification training program for industry-funded at-sea monitors.

Under Herring Alternative 2, the process for vessel notification and selection and payment of industry cost responsibilities would be developed during the rulemaking and amendment approval process.

1.1.2.1 Herring Alternative 2.5: 100% NEFOP-Level Coverage on Midwater Trawl Fleet Fishing in Groundfish Closed Areas (Preferred Alternative)

NEFMC ~~would select~~ed 100% NEFOP-Level coverage for all vessels using midwater trawl gear fishing in Groundfish Closed Areas.

Herring Alternative 2.5 would require vessels fishing with midwater trawl gear in the Groundfish Closed Areas to carry a NEFOP-level observer. The sub-options (i.e., waiver allowed, wing vessel exemption, 2 year sunset, 2 year evaluation, and 25 mt threshold) described under Herring Alternative 2 would not apply to Herring Alternative 2.5.

The Groundfish Closed Areas ***currently*** include: Closed Area I, Closed Area II, Nantucket Lightship Closed Area, Cashes Ledge Closure Area, and Western Gulf of Maine Closure Area.

Prior to any Groundfish Closed Area trip declared into the herring fishery, representatives for vessels with midwater trawl gear would be required to provide notice to NMFS and request a NEFOP-level observer through the pre-trip notification system. If an SBRM observer was not selected to cover that trip, NMFS would notify the vessel representative that NEFOP-level observer coverage must be procured through an industry-funded at-sea monitoring service provider. The vessel representative would then be required to contact an industry-funded monitoring service provider to obtain and pay for a NEFOP-level observer to carry on its next fishing trip within a Groundfish Closed Area. The vessel would be prohibited from fishing for, taking, possessing, or landing any herring on any trip within a Groundfish Closed Area without carrying a NEFOP-level observer for that trip. Acknowledging that available Federal funding to cover NMFS cost responsibilities may be limited, this alternative would likely reduce the ability of the midwater trawl fleet to participate in the herring fishery inside the Groundfish Closed Areas.

NEFOP-level observers would collect the following information on herring trips in Groundfish Closed Areas:

- Fishing gear information (i.e., size of nets, mesh sizes, and gear configurations);
- Tow-specific information (i.e., depth, water temperature, wave height, and location and time when fishing begins and ends);
- All retained and discarded catch (fish, sharks, crustaceans, invertebrates, and debris) on observed hauls (species, weight, and disposition);
- Retained catch on unobserved hauls (species, weight, and disposition);
- Actual catch weights whenever possible, or alternatively, weight estimates derived by sub-sampling;
- Whole specimens, photos, length information, and biological samples (i.e., scales, otoliths, and/or vertebrae from fish, invertebrates, and incidental takes);
- Information on interactions with protected species, such as sea turtles, marine mammals, and sea birds; and
- Vessel trip costs (i.e., operational costs for trip including food, fuel, oil, and ice).

The 100% NEFOP-level observer coverage target for this alternative would be calculated by combining SBRM and industry-funding monitoring coverage. One way to achieve this combined coverage target would be to use an estimate of the previous year's SBRM coverage for midwater trawl vessels (e.g., 5%) combined with industry-funded monitoring (e.g., 95%). Because the coverage target is calculated by combining SBRM and industry-funded monitoring coverage, a vessel would not carry an SBRM observer and industry-funded observer on the same trip.

Under Herring Alternative 2.5, slippage restrictions and reporting requirements would apply to all midwater trawl vessels with limited access herring permits fishing in Groundfish Closed Areas and slippage consequences would apply to all midwater trawl vessels with Category A and B herring permits fishing in Groundfish Closed Areas.

Rationale: The requirement that midwater trawl vessels fishing in the Groundfish Closed Areas carry a NEFOP-level observer was established in Herring Amendment 5. Analyses in Amendment 5 suggest that midwater trawl vessels are not catching significant amounts of groundfish either inside or outside the Groundfish Closed Areas. Additionally, the majority of groundfish catch by midwater trawl vessels is haddock, and the catch of haddock by midwater trawl vessels is already managed through a haddock catch cap for the herring fishery. However, the rationale in Amendment 5 described the importance of determining the extent and nature of catch and bycatch in the herring fishery. This alternative would still allow the herring midwater trawl fishery to operate in the Groundfish Closed Areas, but it would ensure that opportunities for sampling are maximized.

Revisions to the SBRM in April 2015 affected how funding is used to allocate observer coverage, such that SBRM funding must first be used to provide SBRM coverage. SBRM coverage is used to estimate amount of fish discarded at sea. Since midwater trawl vessels generally discard only a small percentage of catch at sea, SBRM coverage allocated to midwater trawl vessels is relatively low compared to coverage allocated to other gear types that have higher discard rates. Thus, the realized coverage level of midwater trawl vessels fishing in Groundfish Closed Areas will only be equivalent to SBRM coverage aboard midwater trawl vessels, likely less than 100% observer coverage. This alternative was added to this amendment to increase observer coverage on midwater trawl vessels and allow those vessels access to the Groundfish Closed Areas with industry-funded monitoring.

1.1.2.2 Herring Alternative 2.7: At-Sea Monitoring Coverage on Category A and B Vessels, Then Vessels May Choose Either At-Sea Monitoring Coverage or Electronic Monitoring and Portside Sampling Coverage (Preferred Alternative)

NEFMC would select ASM coverage targets (25%, 50%, 75%, or 100%) and EM/Portside sampling coverages for all Category A and B vessels. A different coverage target (25%, 50%, 75%, or 100%) may be selected for each monitoring type (ASM or EM/Portside sampling) and each gear type (midwater trawl, purse seine, bottom trawl).

NEFMC selected an ASM coverage target of 50%, using the combined coverage target approach, and EM/portside sampling coverage target of 50%, using the additive coverage target approach, for all Category A and B vessels. Different coverage target (25%, 50%, 75%, or 100%) were analyzed for each gear type (midwater trawl, purse seine, bottom trawl), but the NEFMC selected a 50% coverage target for all gear types.

Initially, Herring Alternative 2.7 would require vessels with Category A and B herring permits to carry an at-sea monitor on every declared herring trip selected for coverage by NMFS. Vessels would be selected to carry an at-sea monitor by NMFS to meet the ASM coverage target (25%, 50%, 75%, or 100%) specified in this action.

Prior to any trip declared into the herring fishery, representatives for vessels with Category A and B herring permits would be required to provide notice to NMFS and request an at-

sea monitor through the pre-trip notification system. If an SBRM observer was not selected to cover that trip, NMFS would notify the vessel representative whether or not an at-sea monitor must be procured through an industry-funded monitoring service provider. If NMFS informs the vessel representative that at-sea monitoring coverage is necessary, they would then be required to contact an industry-funded monitoring service provider to obtain and pay for an at-sea monitor to carry on its next fishing trip. The vessel would be prohibited from fishing for, taking, possessing, or landing any herring without carrying an at-sea monitor on its next trip. If NMFS informs the vessel representative that at-sea monitoring coverage is not necessary on its next trip, NMFS would issue the vessel an at-sea monitoring coverage waiver.

At-sea monitors would collect the following information on herring trips:

- Fishing gear information (i.e., size of nets, mesh sizes, and gear configurations);
- Tow-specific information (i.e., depth, water temperature, wave height, and location and time when fishing begins and ends);
- All retained and discarded catch (fish, sharks, crustaceans, invertebrates, and debris) on observed hauls (species, weight, and disposition);
- Actual catch weights whenever possible, or alternatively, weight estimates derived by sub-sampling;
- Length data on retained and discarded catch;
- Information on interactions with protected species, such as sea turtles, marine mammals, and sea birds; and
- Vessel trip costs (i.e., operational costs for trip including food, fuel, oil, and ice).

Revising the duties for an at-sea monitor, such that additional biological information would be collected, could be done in a future framework action. The NEFMC may also recommend that at-sea monitors collect additional biological information by considering the issue at a public meeting, where public comment is taken, and asking NMFS to publish a notice or rulemaking modifying the duties for at-sea monitors.

The ASM coverage target (~~25%, 50%, 75%, or 100%~~) for this alternative would be calculated by combining SBRM and industry-funded monitoring coverage. One way to achieve this combined coverage target would be to use an estimate of the previous year's SBRM coverage for vessels with Category A and B herring permits (e.g., 15%) combined with industry-funded monitoring (e.g., 10%). Because the coverage target is calculated by combining SBRM and industry-funded monitoring coverage, a vessel would not carry an SBRM observer and industry-funded at-sea monitor on the same trip.

Initially, Herring Alternative 2.7 would require all vessels with Category A and B permits to carry an at-sea monitor on every declared herring trip selected for coverage by NMFS. If an at-sea monitor was not available to cover a specific herring trip (either due to logistics or a lack of funding), that vessel would be prohibited from participating in the herring fishery on that trip.

If the NEFMC determines that EM/portside sampling is an adequate substitute for ASM coverage aboard midwater trawl vessels, then Category A and B vessels using midwater trawl gear would be able to choose whether to use ASM or EM/portside sampling coverage. The coverage targets (~~25%, 50%, 75%, or 100%~~) for each monitoring type (ASM and EM/portside) and each gear type (midwater trawl, purse seine, bottom trawl) would be selected by the NEFMC.

If in the future, the NEFMC determined that EM/portside sampling is an adequate substitute for ASM coverage aboard purse seine or bottom trawl vessels. If so, then the ability of Category A and B vessels using purse seine or bottom trawl gear to choose whether to use ASM or EM/portside sampling coverage would be considered in a future action, consistent with the NEFMC's process to approve a new gear type.

Once Category A and B vessel using midwater trawl gear are able to choose between ASM and EM/portside sampling, midwater trawl vessels would be required to: 1) Choose one monitoring type per fishing year and 2) declare their preferred monitoring type six months in advance of the fishing year. After consulting with NMFS, the Councils will establish a minimum participation threshold for each monitoring type for a fishing year. If the minimum participation level for a monitoring type was not achieved for a given year, then midwater trawl vessels would not be able to use that monitoring type during that given year.

If a Category A or B vessel using midwater trawl gear chose EM/portside monitoring coverage for a given year, that vessel would be required to carry an operating EM system on every trip declared into the herring fishery and allow portside sampling of their catch on declared herring trip selected for coverage by NMFS. The intention of the NEFMC would be that all declared herring trips by midwater trawl vessels would have some percentage of EM footage sampled (~~25%, 50%, 75%, or 100%~~) and that same percentage of trips sampled portside (~~25%, 50%, 75%, or 100%~~). ~~However, factors such as where catch is landed, ability to access the offload, and infrastructure limitations at certain landing ports, may prevent the program from achieving 100% coverage, even if funding is not limiting.~~

~~If an operative EM system or portside sampler was not available to cover a specific herring trip (either due to logistics or a lack of funding), that midwater vessel would be prohibited from participating in the herring fishery on that trip.~~

The EM footage and portside sampling coverage target (~~25%, 50%, 75%, or 100%~~) for this alternative would be calculated independent of and in addition to SBRM coverage. To reach a 50% coverage target in a given year, the rate of EM footage review and portside sampling would both equal 50%, regardless of the amount of SBRM coverage on midwater trawl vessels. Because the coverage target is calculated independent of and in addition to SBRM coverage, a vessel may carry an SBRM observer on that same trip that would be sampled portside.

As recommended by the NEFMC, Herring Alternative 2.7 would have a pre-implementation plan to help the industry understand any new EM and portside monitoring requirements

and become compliant with sampling equipment, notification, sampling, and reporting requirements.

Under Herring Alternative 2.7, all slippage restrictions, reporting requirements, and slippage consequences would apply to vessels with Category A and B herring permits.

The realized observer coverage level for this alternative in a given year would be determined by the amount of Federal funding available to cover NMFS cost responsibilities. The realized observer coverage level would fall anywhere between SBRM coverage and the specified at-sea monitoring coverage level on vessels with Category A and B herring permits. Acknowledging that available Federal funding to cover NMFS cost responsibilities may be limited, this alternative would likely **have reduced** the ability of vessels with Category A and B herring permits using midwater trawl gear to participate in the herring fishery, ~~unless if~~ Sub-Option 1 was **had not been** selected allowing coverage requirements to be waived.

Rationale: In contrast to NEFOP-level observers, at-sea monitors would not collect whole specimens, photos, or biological samples (other than length data) from catch or data on interactions with protected species. The NEFMC recommended that at-sea monitors collect only a limited data set compared to NEFOP-level observers to allow for any possible cost savings associated with reducing training time, gear requirements, and internal support resources necessary to administer an at-sea monitoring program for the herring fishery. *(See Appendix 5 – Analysis of ASM Costs for additional details.)*

Because the midwater trawl fleet discards only a small percentage of its catch at sea, EM and portside sampling have the potential to be a cost effective way to address monitoring goals for the midwater trawl fleet harvesting herring. EM would be used to verify retention of catch on the midwater trawl fleet and portside sampling would be used to verify amount and species composition of landed catch.

The implementation of EM in the herring fishery would be based on the ongoing EM exempted fishing permit program for the West Coast whiting fishery that is expected to be transitioned into regulation by 2017. The implementation of portside sampling in the herring fishery would be based on the existing portside sampling program for the midwater trawl fleet operated by the Massachusetts Division of Marine Fisheries and Maine Department of Marine Resources.

To ensure an equitable monitoring burden across Category A and B vessels, the NEFMC recommended Category A and B vessels be able to choose between ASM and EM/portside monitoring coverage for a given fishing year.

Slippage restrictions, reporting requirements, and consequences are intended to improve catch monitoring by minimizing discarding events to help ensure that total catch is available for sampling.

Combining SBRM coverage with industry-funded monitoring coverage to achieve the ASM coverage target (~~25%, 50%, 75%, or 100%~~) is intended to reduce the costs associated with industry-funded monitoring coverage. Because there is value in comparing information on discarding and catch composition collected by an SBRM observer with data collected by EM and portside sampling, the coverage target for EM and portside sampling is calculated independent of and in addition to SBRM coverage.