

# Industry-Funded Monitoring Omnibus Amendment

## *Herring Coverage Target Alternatives*

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# Purpose and Need

- Allow Councils to develop new IFM programs using a standardized approach
- Allow industry funding to be used in conjunction with available Federal funding to meet FMP-specific coverage targets above existing requirements
- Allow Councils and NMFS to prioritize available Federal funding across new IFM programs

# General Approach

- New IFM programs would specify fishery-specific coverage *targets*
- Tool for NMFS to approve Council's desired levels of monitoring, without committing to supporting coverage levels before funding is determined to be available
- No IFM for herring fishery in years when there is no additional Federal funding to cover NMFS administration costs

# Key results if adopted

## This amendment would...

- Establish a standardized structure for new industry-funded programs
- Set coverage targets for herring & mackerel fisheries

## This amendment would not...

- Set coverage targets for fisheries other than herring & mackerel
- Impact existing industry-funded monitoring programs, including groundfish & scallops

# Two Types of Alternatives in this Amendment

- Omnibus Alternatives
  - Apply to all NEFMC and MAFMC FMPS
  - Both Councils selected preliminary preferred omnibus alternatives earlier this year
- Herring and Mackerel Coverage Target Alternatives
  - Specify IFM coverage targets for herring and mackerel fisheries

# **HERRING COVERAGE TARGET ALTERNATIVES**

# Goals of IFM Monitoring

Increased monitoring in the herring fishery should address the following goals:

- Accurate estimates of catch (retained and discarded),
- Accurate catch estimates for incidental species for which catch caps apply, and
- Affordable monitoring for the herring fishery.

<b>Gear Type</b>	<b>Purse Seine</b>	<b>MWT</b>	<b>Bottom Trawl</b>
Alt 1: No Coverage Target for IFM Programs (No Action)	SBRM	SBRM	SBRM
Alt 2: Coverage Targets Specified for IFM Programs	Includes Sub-Options: Waiver Allowed, Wing Vessel Exemption, 2 Yr Sunset, 2 Yr Re-Evaluation, and 25 mt threshold		
Alt 2.1: 100% NEFOP-Level Coverage on Category A and B Vessels	100% NEFOP	100% NEFOP	100% NEFOP
Alt 2.2: ASM Coverage on Category A and B Vessels	25 - 100% ASM	25- 100% ASM	25 - 100% ASM
Alt 2.3: Combination Coverage on Category A and B Vessels and Midwater Trawl Fleet	25 - 100% ASM	50, 100% EM & Portside	25% - 100% ASM
Alt 2.4: EM and Portside Sampling on Midwater Trawl Fleet	SBRM	50, 100% EM & Portside	SBRM
Alt 2.5: 100% NEFOP-Level Coverage on Midwater Trawl Fleet Fishing in Groundfish Closed Areas	SBRM	100% NEFOP	SBRM
Alt 2.6: Combination Coverage on Midwater Trawl Fleet Fishing in Groundfish Closed Areas	SBRM	Same as 2.1-2.4	SBRM



# Herring Alternative 2 Sub-Options

- Sub-Option 1: Waiver allowed if IFM coverage is not available
- Sub-Option 2: Wing vessel exempt from IFM requirements
- Sub-Option 3: IFM requirements sunset in two years
- Sub-Option 4: IFM requirements are re-evaluated in two years
- Sub-Option 5: IFM requirements only apply on trips that land more than 25 mt of herring

# Herring Monitoring and Service Provider Requirements

- Omnibus Alternative 2 would set standard monitoring and service provider requirements
- Herring Alternative 2 would specify that IFM observers would need to hold a high volume fishery certification

# How Current Herring Data Used

- Dealer and vessel data are used to estimate landed catch
- SBRM observer data are used to estimate herring discards
- SBRM observer data are used to estimate the catch of haddock and river herring and shad
- SBRM observer data are used to estimate species composition of catch in Groundfish Closed Areas
- Vessel data and Maine portside age and length data are used in stock assessment

# Under Herring Alternative 2, NEFOP-Level Observers Would Collect

- Data on retained and discarded catch (species, weight, composition);
- Tow-specific information (depth, water temperature, wave height, and location and time when fishing begins and ends);
- Fishing gear information (size of nets and dredges, mesh sizes, and gear configurations);
- Biological samples from catch (scales, otoliths, and/or vertebrae from fish, invertebrates, and incidental takes);
- Information on interactions with protected species (sea turtles, marine mammals, and birds); and
- Vessel trip costs (operational costs for trip including food, fuel, oil, and ice).

# Under Herring Alternative 2, At-Sea Monitors Would Collect

- Data on discarded catch (species, weight, composition);
- Fishing gear information (size of nets and dredges, mesh sizes, and gear configurations);
- Tow-specific information (depth, water temperature, wave height, and location and time when fishing begins and ends);
- Biological samples from discarded catch (scales, otoliths, and/or vertebrae from fish, invertebrates, and incidental takes); and
- Vessel trip costs (operational costs for trip including food, fuel, oil, and ice).

# Under Herring Alternative 2, EM and Portside Sampling Would Collect

- EM would be used to verify retention of catch for sampling portside
- Portside samplers would collect
  - Data on retained catch (species, weight, composition); and
  - Biological samples from retained catch (scales, otoliths, and/or vertebrae from fish, invertebrates, and incidental takes).

# Update on Herring/Mackerel EM Project

- Funding – \$400,000
- Duration – Project would cover 16 months
  - Beginning in July 2016 with 2 months of project set-up
  - 12 months of EM operation with 100% video review
  - Ending in November 2017 after 2 months of project review
- Participation – all active midwater trawl vessels (likely 12 vessels) on a volunteer basis

# Update on Herring/Mackerel EM Project

- We will issue a request for proposals to find an EM service provider
- NEFSC and service provider will work with project participants to develop vessel monitoring plans
- Primary focus is to familiarize fleet with EM operations and confirm utility of EM on midwater trawl vessels



# Update on Herring/Mackerel EM Project

Dates	Option 1	Option 2
June 2016	Approve Draft EA for public comment	Approve Draft EA for public comment
July 2016	Herring/Mackerel EM Project initiated	Herring/Mackerel EM Project initiated
September and October 2016		NEFMC and MAFMC take Final Action on IFM Amendment
March 2017		Final Rule Effective for IFM Amendment
November 2017	Herring/Mackerel EM Project completed	Herring/Mackerel EM Project completed
December 2017 and January 2018	MAFMC and NEFMC take Final Action on IFM Amendment	
Winter 2018		IFM Amendment implemented
Summer 2018	Final Rule Effective for IFM Amendment	
2019	IFM Amendment implemented	

# **SUMMARY OF BIOLOGICAL IMPACTS**

# Herring Alternatives 2.1 – 2.5

- Differ by type of data collected
- Differ by how coverage is allocated
- Differ by amount of coverage

# Summary of Biological Impacts of Herring Coverage Target Alternatives

- Herring Alternative 1 – Low Positive
- Herring Alternative 2 – Positive
  - Catch and bycatch data collected - Positive
  - Just bycatch data collected – Low Positive
  - Coverage allocated by permit - Low Positive
  - Coverage allocated by fleet – Positive
  - Coverage only in GF Closed Areas - Low Positive
  - Not selecting Sub-Option 1 – Positive
  - Selecting Sub-Option 5 - Negative

# **SUMMARY OF ECONOMIC IMPACTS**

# Monitoring Cost Estimates

Types of Monitoring	NMFS Cost	Vessel Cost
NEFOP-Level Observer	\$479 per sea day	\$818 per sea day
At-Sea Monitor	\$530 per sea day	\$710 per sea day
Electronic Monitoring	Year 1: \$36,000 startup plus \$97 per sea day	Year 1: \$15,000 startup plus \$325 <sup>1</sup> or \$187 <sup>2</sup> per sea day
	Year 2: \$97 per sea day	Year 2: \$325 <sup>1</sup> or \$187 <sup>2</sup> per sea day
Portside Sampling	\$479-\$530 per sea day	\$5.12 <sup>1</sup> or \$3.84 <sup>2</sup> per mt

1 – Initial cost assumptions

2 – Revised cost assumptions

<b>Cost Category</b>	<b>Average Percent of 2014 Gross Revenue for Herring and Mackerel Vessels</b>	<b>Average Percent of 2014 Gross Revenue for Squid Vessels</b>
<b>Variable Costs</b>	25%	35%
<b>Crew Share</b>	28%	26%
<b>Repair, Maintenance, Upgrades, Haulout (RMUH)</b>	13%	11%
<b>Fixed Costs</b>	19%	21%
<b>Return to Owner (RTO)</b>	15%	7%

# Estimated Impacts on Midwater Trawl Vessels

	Gear Type	Paired MWT		Single MWT	
	Median Return-to-Owner (RTO)	\$159,529		\$60,156	
Alternative	Median Potential Reduction to RTO	≥1 lb	> 25 MT	≥1 lb	> 25 MT
2.1	100% NEFOP-level	44.7%	42.2%	24.4%	5.8%
2.2	100% ASM	38.9%	36.7%	21.3%	5.1%
	75% ASM	29.5%	28.2%	15.9%	3.8%
	50% ASM	20.4%	18.9%	10.5%	2.5%
	25% ASM	10.1%	9.6%	5.6%	1.4%
2.3 and 2.4	EM/Portside Year 1 <sup>1</sup>	42.2%	40.1%	37.3%	19.5%
	EM/Portside Year 2 <sup>1</sup>	29.1%	27.5%	12.8%	4.9%
	<b>EM/Portside Year 1<sup>2</sup></b>	<b>25.1%</b>	<b>24.2%</b>	<b>26.7%</b>	<b>16.9%</b>
	<b>EM/Portside Year 2<sup>2</sup></b>	<b>14.4%</b>	<b>13.3%</b>	<b>6.9%</b>	<b>2.4%</b>
2.5	100% NEFOP-level	5.4%	5.4%	1.0%	1.0%

1- Initial cost assumptions and 2- Revised cost assumptions



# Summary of Median Potential Reduction in RTO From Monitoring Costs

- Herring Alternative 2.1 – 44.7% to 5.8%
- Herring Alternative 2.2 – 38.9% to 1.4%
- Herring Alternative 2.3 – 38.5% to 1.4%
- Herring Alternative 2.4 – 29.1% to 2.4%
- Herring Alternative 2.5 – 5.4% to 1.0%
- Herring Alternative 2.6 – Same as 2.1 to 2.4

# Midwater Trawl Vessel Landing Ports

- Maine (Portland, Rockland, *Vinalhaven*, Prospect Harbor, Jonesport, *Milbridge*);
- New Hampshire (*Newington*);
- Massachusetts (Boston, Gloucester, New Bedford);
- Rhode Island (Point Judith, *North Kingstown*);  
and
- New Jersey (Cape May).

# Conclusions of Economic Analysis

- Paired MWT vessels have highest monitoring costs as a percentage of RTO because of more sea days
- Revenue sources differ across gear types, 50% of SMBT revenue is from other fisheries
- Exempting trips that catch  $< 25$  mt of herring reduces monitoring costs
- EM and Portside is generally less expensive than comparable levels of ASM coverage in Year 2, but not Year 1
- Using revised cost assumptions for EM and Portside reduce cost by over 50% in Year 2

# Summary of Herring Coverage

## Target Alternative Impacts

Alternatives	Biological Impacts	Economic Impacts
HER Alt 1	Low Positive	Low Positive
HER Alt 2	Positive	Negative
HER Alt 2.1	Low Positive	Negative
HER Alt 2.2	Low Positive	Negative
HER Alt 2.3	Low Positive	Negative
HER Alt 2.4	Positive	Negative
HER Alt 2.5	Low Positive	Negative
HER Alt 2.6	Low Positive	Negative

# **COUNCIL CONSIDERATIONS**

# Revise AMS Alternatives?

- Herring Committee Statement – ASM alternatives should collect data on retained catch (not just discarded catch)
- PDT/FMAT Recommendation – Revise ASM alternatives to collect data on retained catch or expand observer alternatives options (25%, 50%, and 75%)
- MAFMC Recommendation – Revise ASM alternatives to collect data on retained catch

# Revise the Method to Calculate Coverage Targets?

- Coverage targets were developed to be independent of and in addition to SBRM
- Benefits of using SBRM coverage to meet coverage target ( $\text{SBRM} + \text{IFM} = \text{coverage target}$ )
  - Lowered IFM coverage and cost saving for industry
  - Coverage would not exceed target
- Concerns with using SBRM coverage to meet coverage target
  - Alternatives do not align with SBRM coverage
  - Difficult to calculate a combined coverage target
  - Potential equity concerns across gear types

# Revise the Method to Calculate Coverage Targets?

- Herring Committee Statement – Include SBRM coverage to meet herring coverage target (10% SBRM + 15% IFM = 25% coverage target)
- No PDT/FMAT Recommendation – Did not reach consensus
- MAFMC Recommendation – Include SBRM coverage to meet mackerel coverage target for NEFOP and ASM alternatives, but not EM/Portside alternatives



# Slippage Requirements

- Limited access herring vessels must bring catch aboard for sampling by an observer unless there is a safety issue, mechanical failure, or excess catch of dogfish
- If slippage occurs, limited access vessels must complete a released catch affidavit
- Herring Framework 4 established requirements for reporting slippage via VMS and slippage consequence measures

# Extend Slippage Requirements?

- Does the Council want to extend slippage reporting requirements (affidavit, VMS) and slippage restrictions (unless safety, mechanical failure, or dogfish) to trips selected for at-sea monitoring and portside sampling coverage?
- MAFMC Recommendation – Extend slippage requirements to trips selected for at-sea monitoring and portside sampling coverage.

# Collect Biological Data?

- Coverage target alternatives describe the collection of biological data, meaning age/length data and biological samples (scales, otoliths, and/or vertebrae from fish, invertebrates, and incidental takes)
- The goals for the coverage target alternatives focus on catch monitoring
- Does the Council want age/length data and/or biological samples collected?
- MAFMC did not object to age/length data being collected

# Timeline

Dates	Meeting/Deadline	Action
January 2016	NEFMC Meeting	NEFMC selected preliminary preferred omnibus alternatives
February 2016	MAFMC Meeting	MAFMC selected preliminary preferred omnibus alternatives
April 2016	MAFMC and NEFMC Meetings	NEFMC and MAFMC select preliminary preferred herring/mackerel alternatives
June 2016	MAFMC and NEFMC Meetings	MAFMC and NEFMC approve Draft EA for public comment
July-August 2016		30-day comment period on Draft EA and public hearings
September-October 2016	MAFMC and NEFMC Meetings	NEFMC and MAFMC take final action
November 2016-February 2017		EA finalized, proposed rule and final rulemaking
March 2017		Final rule effective