Corrected a typo (see highlighted note on page 4) on 9/29/2020

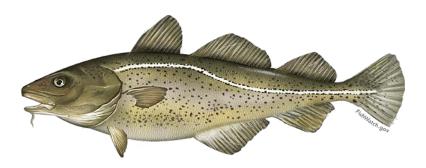
DECISION DOCUMENT

For

Amendment 23 to the

Northeast Multispecies (Groundfish)

Fishery Management Plan



This document was developed to help the Council select final preferred alternatives for Amendment 23.

September 25, 2020

Version - Council

Anticipated Council Action:

Prior to selecting final preferred alternatives, Council staff will present the measures under consideration in Amendment 23 and provide a summary of the public comments received during the comment period. Council staff will also answer questions, as needed, about the document including measures under consideration in Amendment 23 and their analyzed impacts on target species, non-target species, protected resources, the physical environment (EFH), and human communities (economic and social impacts).

- 1. Select the *preferred alternative* for Commercial Groundfish Monitoring Program Revisions (Sectors only) (Section 4.1).
- 2. Select the *preferred alternative* for Commercial Groundfish Monitoring Program Revisions (Sector and Common Pool) (Section 4.2)
- 3. Select the *preferred alternative* for Sector Reporting (Section 4.3)
- 4. Select the *preferred alternative* for Funding/Operational Provisions of Groundfish Monitoring (Sectors and Common Pool) (Section 4.4)
- 5. Select the *preferred alternative* for Management Uncertainty Buffers for the Commercial Groundfish Fishery (Section 4.5)
- 6. Select the *preferred alternative* for Remove Commercial Groundfish Requirement for Certain Vessels Fishing Under Certain Conditions (Section 4.6)
- 7. Motion to submit Amendment 23 to NOAA Fisheries.

The Groundfish Committee did not make preferred alternative motions at their meeting on Sep. 22, 2020.

Action 1- Commercial Groundfish Monitoring Program Revisions (Sectors only)

Section 4.1 –	Action 1 – Commercial Groundfish Monitoring Program Revisions	Council	Prefe	rred by
Cl	(Sectors only)	Prelim Pref.	AP	Cte
4.1.1	ion/sub-option in 4.1.1. The Council can select multiple options in 4.1.2. Sector Monitoring Standards (Target Coverage Level)	1101.		
Option 1	No action			
(Sec. 4.1.1.1)	No action			
Option 2 (Sec. 4.1.1.2)	Fixed Total At-Sea Target Monitoring Coverage Level Based on a Percentage of Trips Fixed total would be identified for deploying human at-sea monitors or observers. Sectors would achieve the standard through use of human at-sea monitors or observers or options for substitute sector monitoring tools (Section 4.1.2)		х	
Sub-Option 2A (4.1.1.2.1)	25 percent			
Sub-Option 2B (4.1.1.2.2)	50 percent			
Sub-Option 2C (4.1.1.2.3)	75 percent			
Sub-Option 2D (4.1.1.2.4)	100 percent	x		
Option 3 (Sec. 4.1.1.3)	Fixed Total At-Sea Target Monitoring Coverage Level Based on a Percentage of Catch Fixed total would be identified for deploying human at-sea monitors or observers. Sectors would achieve the standard through use of human at-sea monitors or observers or options for substitute sector monitoring tools (Section 4.1.2)			
Sub-Option 3A (4.1.1.3.1)	25 percent			
Sub-Option 3B (4.1.1.3.2)	50 percent			
Sub-Option 3C (4.1.1.3.3)	75 percent			
Sub-Option 3D (4.1.1.3.4)	100 percent			
4.1.2	Sector Monitoring Tools (Options for meeting monitoring standards)			
Option 1 (Sec. 4.1.2.1)	Electronic Monitoring in place of Human At-Sea Monitors Sectors could choose EM to monitor catch in place of human at-sea monitors (but not to replace NEFOP human observers). EM would only be required to run on trips selected for coverage under the selected coverage rate selected above.			
Option 2 (Sec. 4.1.2.2)	Audit Model Electronic Monitoring Option Approve the use of audit model EM in place of human at-sea monitors (but not to replace NEFOP human observers). EM runs 100% of trips and subset of hauls or trips reviewed to verify VTR reported discards.		Х	

Section 4.1 -	Action 1 – Commercial Groundfish Monitoring Program Revisions	Council	Prefe	rred by
Choose one op	(Sectors only) tion/sub-option in 4.1.1. The Council can select multiple options in 4.1.2.	Prelim Pref.	AP	Cte
	Video review rate would be determined by NMFS and could be reduced through evaluation by NMFS. The Council supports the initial review rates provided from NMFS in its proposed EM option for sectors.			
Option 3	Maximized Retention Electronic Monitoring Option			
(Sec. 4.1.2.3)	c. 4.1.2.3) Approve the use of maximized retention EM in place of human at-sea monitors (but not to replace NEFOP human observers). EM runs 100% of trips and verifies that all allocated, non-prohibited GF are landed, paired with dockside monitoring to sample catch. Vessels would be required to land all GF of all sizes, no discarding of non-prohibited fish.		Х	
4.1.3	Total Monitoring Coverage Level Timing			
Option 1 (Sec. 4.1.3.1)	No action			
Option 2	Knowing Total Monitoring Coverage Level at a Time Certain			
(Sec. 4.1.3.2)	3 weeks prior to annual sector enrollment deadline – this option would only apply to current CV method for target coverage levels (4.1.1.1).			
4.1.4	Review Process for Sector Monitoring Coverage			
Option 1 (Sec. 4.1.4.1)	No action			
Option 2 (Sec. 4.1.4.2)	Establish a Review Process for Monitoring Coverage Rates Once 2 years of fishing year data is available and periodically after that. Metrics would be developed and indicators for how well program has improved accuracy while minimizing costs. This review would most likely be done by the Groundfish PDT with substantial support by NEFSC and GARFO.	х	х	
4.1.5	51.11.51		х	

Decisions/Questions/Information to Consider

- If the Council selects 4.1.1.2.4 or 4.1.1.3.4, the Council has the option to select 4.5.2 in Section 4.5 below.
- 4.1.3.2 does not apply if the Council selects 4.1.1.2.
- Motion: The Groundfish Advisory Panel requests that the Groundfish Committee recommend an annual target fixed monitoring coverage rate based on a percentage of trips 4.1.1.2 (Sector Monitoring Standard Option 2: Fixed Total At-Sea Target Monitoring Coverage Level Based on a Percentage of Trips) combined with adoption of 4.4.2.1 Funding Provisions (Option 2 Provisions for an Increase or Decrease in Funding for the Groundfish Monitoring) Sub-Option 2A (Higher Monitoring Coverage Levels if NMFS Funds are Available (Sectors)) and Sub-Option 2B (Waivers from Monitoring Requirements Allowed (Sectors and Common Pool)). The fixed coverage rate selected should be one that does not threaten the continued viability and diversity of the industry. 7/2/0
- Motion: The Groundfish Advisory Panel recommends to the Groundfish Committee electronic monitoring audit-based and maximized retention options as tools for monitoring the fishery. The Maximum Retention electronic model is not currently approved, and it is unknown when it will be approvable. In 4.1.2 Sector Monitoring Tools (Options for meeting monitoring standards): 4.1.2.2 Sector Monitoring Tools Option 2 Audit Model Electronic Monitoring Option and 4.1.2.3 Sector Monitoring Tools Option 3 Maximized Retention Electronic Monitoring Option. 9/2/2
- Refer to Affected Environment: Sections 6.6.10.2, 6.6.10.4, and 6.6.10.5; and Appendix V for analysis and information to consider on sector monitoring coverage (Section 4.1.1).
- Several vessels in the groundfish fishery are currently participating in EM pilot programs for the options

Section 4.1 – Action 1 – Commercial Groundfish Monitoring Program Revisions (Sectors only) Choose one option/sub-option in 4.1.1. The Council can select multiple options in 4.1.2. Council Preferred by Preferred by Prefix

under consideration as additional sector monitoring tools (Section 4.1.2). Refer to Affected Environment: Sections 6.6.10.1.3; and Appendix IV for information to consider on current EM programs.

 The Committee discussed initiating a framework to address the items considered in Section 4.1.5 following Amendment 23, but did not make any motions.

- Impacts on Regulated Groundfish and Other Species- Biological: Section 7.2.1
- Impacts on Physical Environment and Essential Fish Habitat: Section 7.3.1
- Impacts on Endangered and Other Protected Species: Section 7.4.1
- Impacts on Human Communities Economic: Section 7.5.1
- Impacts on Human Communities Social: Section 7.6.1

Action 2- Commercial Groundfish Monitoring Program Revisions (Sector and Common Pool)

Section 4.2 –	Action 2 – Commercial Groundfish Monitoring Program Revisions (Sector and Common Pool)	Council Prelim	Prefe	rred by
If -	4.2.1.2 is selected, select options in the sections under 4.2.2.	Pref.	AP	Cte
4.2.1	Dockside Monitoring Program (Sectors and Common Pool)			
Option 1 (Sec. 4.2.1.1)	No action	Х	Х	
Option 2 (Sec. 4.2.1.2)	_ , ,			
4.2.2	Dockside Monitoring Program Structure and Design			
4.2.2.1	Dockside Monitoring Program Funding Responsibility			
Option A (Sec. 4.2.2.1.1)	Dealer Responsibility Dealers responsible for DSM costs.			
Option B (Sec. 4.2.2.1.2)	Vessel Responsibility Vessels responsible for DSM costs.			
4.2.2.2	Dockside Monitoring Program Administration			
Option A (Sec. 4.2.2.2.1)	Individual contracts with dockside monitor providers Dealers or vessels contract directly with third-party dockside monitor providers.			
Option B (Sec. 4.2.2.2.2)	NMFS-administered dockside monitoring program Single DSM program administered by NMFS, through approved independent third-party dockside monitor providers.			
4.2.2.3	Options for Lower Dockside Monitoring Coverage Levels (20 percent coverage)			
Option A (Sec. 4.2.2.3.1)	Lower coverage levels for ports with low volumes of groundfish landings DSM would be randomly assigned to ports with low volumes of groundfish landings (2016-2018) - all ports except New Bedford, MA; Gloucester, MA; Boston, MA; Portland, ME; Chatham, MA; Point Judith, RI; Seabrook, NH; Rye, NH; and Portsmouth, NH - at a lower coverage level, 20%. Periodic re-evaluation of what constitutes a low volume port would occur after 2 years of data available, every 3 years after that.			
Option B (Sec. 4.2.2.3.2)	Lower coverage levels for vessels with total groundfish landings volumes in the 5th percentile of total annual landings Vessels with less than 46,297 pounds annual average (2016-2018) or dealers that receive landings from vessels with less than 46,297lbs pounds would have lower coverage, 20%. Periodic re-evaluation of what constitutes a low volume vessel would occur after 2 years of data available, every 3 years after that.			
4.2.2.4	Dockside Monitoring Fish Hold Inspection Requirements			
Option A (Sec. 4.2.2.4.1)	Dockside monitor fish hold inspections required Would be allowed access for inspection, they must have insurance, they can refuse but must document reason.			
Option B (Sec. 4.2.2.4.2)	Option B Alternative methods for inspecting fish holds (cameras)			

Option C (Sec. 4.2.2.4.3) No fish hold inspection required, captain signs affidavit Captain certify all catch has been removed, subject to penalties			
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Decisions/Questions/Information to Consider

- The Council could choose one or both options in Section 4.2.2.3.
- Refer to Affected Environment: Sections 6.6.10.1.2 and 6.6.11.1; and Appendix III for analysis and information to consider on dockside monitoring (Section 4.2.1).

- Impacts on Regulated Groundfish and Other Species- Biological: Section 7.2.2
- Impacts on Physical Environment and Essential Fish Habitat: Section 7.3.2
- Impacts on Endangered and Other Protected Species: Section 7.4.2
- Impacts on Human Communities Economic: Section 7.5.2
- Impacts on Human Communities Social: Section 7.6.2

Action 3- Sector Reporting

	Section 4.3 – Action 3 – Sector Reporting		Prefe	rred by
Choose one alternative.		Prelim Pref.	AP	Cte
Option 1 (Sec. 4.3.1)	No action			
Option 2 (Sec. 4.3.2)	Grant Regional Administrator the Authority to Streamline Sector Reporting Requirements RA could revise reporting requirements if specific details are deemed sufficient by the RA.			

Decisions/Questions/Information to Consider

Refer to Affected Environment: Section 6.6.10.1 for information to consider on sector reporting.

- Impacts on Regulated Groundfish and Other Species- Biological: Section 7.2.3
- Impacts on Physical Environment and Essential Fish Habitat: Section 7.3.3
- Impacts on Endangered and Other Protected Species: Section 7.4.3
- Impacts on Human Communities Economic: Section 7.5.3
- Impacts on Human Communities Social: Section 7.6.3

Action 4- Funding/Operational Provisions of Groundfish Monitoring (Sectors and Common Pool)

Section 4.4 – A	Section 4.4 – Action 4 – Funding/Operational Provisions of Groundfish Monitoring			rred by
The	(Sectors and Common Pool) The Council could choose one or both sub-options under Option 2.			Cte
Option 1 (Sec. 4.4.1)				
Option 2 (Sec. 4.4.2)	Provisions for an Increase or Decrease in Funding for the Groundfish Monitoring Program			
Sub-Option 2A (4.4.2.1)	Higher Monitoring Covering Levels if NMFS Funds are Available (Sectors Only) At-sea monitoring could be set at higher coverage levels than required if NMFS gets additional funds. Could be done on a limited basis to evaluate bias.		Х	
Sub-Option 2B (4.4.2.2)	Waivers from Monitoring Requirements Allowed (Sectors and Common Pool) Vessels could 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 insufficient funding for NMFS shoreside costs for the specified target coverage level.	х	х	

Decisions/Questions/Information to Consider

 Refer to Affected Environment: Section 6.6.10.3 for information to consider on funding for groundfish atsea monitoring coverage.

- Impacts on Regulated Groundfish and Other Species Biological: Section 7.2.4
- Impacts on Physical Environment and Essential Fish Habitat: Section 7.3.4
- Impacts on Endangered and Other Protected Species: Section 7.4.4
- Impacts on Human Communities Economic: Section 7.5.4
- Impacts on Human Communities Social: Section 7.6.4

Action 5- Management Uncertainty Buffers for the Commercial Groundfish Fishery (Sectors)

Section	Section 4.5 – Action 5 – Management Uncertainty Buffers for the Commercial			rred by			
Choose o	Groundfish Fishery (Sectors) Choose one alternative. 4.5.2 can only be selected if the Council selects 4.1.1.2.4 or 4.1.1.3.4 above.			Cte			
Option 1 (Sec. 4.5.1)	•						
Option 2 (Sec. 4.5.2)	Elimination of Management Uncertainty Buffer for Sector ACLs with 100 Percent Monitoring of All Sector Trips						
,	Revise the management uncertainty buffer for the sector ACL for each allocated groundfish stock to be zero, if the option for 100 percent at-sea monitoring is selected.	X					
Decisions/Q	uestions/Information to Consider						
• Thi	is decision is tied to the Council's selection in Section 4.1.1.						
Other impor	tant Considerations/ EIS References						
• Im	Impacts on Regulated Groundfish and Other Species- Biological: Section 7.2.5						
• Im	 Impacts on Physical Environment and Essential Fish Habitat: Section 7.3.5 						
• Im	 Impacts on Endangered and Other Protected Species: Section 7.4.5 						
• Im	pacts on Human Communities - Economic: Section 7.5.5						
● lm	pacts on Human Communities - Social: Section 7.6.5						

Action 6- Remove Commercial Groundfish Requirement for Certain Vessels Fishing Under Certain Conditions

Section 4.6 – A	Section 4.6 – Action 6 – Remove Commercial Groundfish Requirement for Certain Vessels Fishing Under Certain Conditions				
If On	tion 2 or 3 is selected, one or both sub-options can be selected.	Prelim Pref.	AP	Cto	
1, Op.	Item 4.6.4 can also be selected.		AF	Cte	
Option 1 (Sec. 4.6.1)					
Option 2 (Sec. 4.6.2)	Remove Monitoring Requirements for Vessels Fishing Exclusively West of 72 Degrees 30 Minutes West Longitude				
Sub-Option 2A (4.6.2.1)	Remove At-Sea Monitoring Coverage Requirement (Sectors Only) Sector vessels fishing exclusively west of 72 30 W would not be subject to at-sea monitoring. Measures under No Action would remain in place.				
Sub-Option 2B Remove Dockside Monitoring Coverage Requirement (Sectors and Common Pool) Vessels fishing exclusively west of 72 30 W would not be subject to DSM. Measures under No Action would remain in place.					
Option 3 (Sec. 4.6.3)	Tronove monitoring i regiani requirement for vessels i isning		Х		
Sub-Option 3A (4.6.3.1)			х		
Sub-Option 3B (4.6.3.2)	Sub-Option 3B Remove Dockside Monitoring Coverage Requirement (Sectors and		Х		
4.6.4 (Sec. 4.6.4)	Review Process for Vessels Removed from Commercial Groundfish Monitoring Program Requirements				
Option 1 (4.6.4.1)	No Action				
Option 2 (4.6.4.2)	Implement a Review Process for Vessels Removed from Commercial Groundfish Monitoring Program Requirements After two years of fishing data is available, and every three years after that, the PDT would review catch composition from vessels fishing on trips not subject to monitoring requirements to verify that the catch composition has little to no groundfish.	х	Х		

Decisions/Questions/Information to Consider

Refer to Affected Environment: Section 6.6.11.2 for analysis to consider.

- Impacts on Regulated Groundfish and Other Species- Biological: Section 7.2.6
- Impacts on Physical Environment and Essential Fish Habitat: Section 7.3.6
- Impacts on Endangered and Other Protected Species: Section 7.4.6
- Impacts on Human Communities Economic: Section 7.5.6
- Impacts on Human Communities Social: Section 7.6.6

Table 1 – Summary of impacts analysis.

Actions	s and Alternatives	Dire	ect and indirect impacts		
Actions	s and Alternatives	Biological and Physical	Economic and Social		
Action 1					
4.1	Commercial Groundfish Monitoring Program (Sectors only)				
4.1.1	Sector monitoring standard (coverage level)				
4.1.1.1	Sector Monitoring Standard Option 1 (No Action)	The average total, target and realized coverage levels from 2010-2017 have been 25% and 22% respectively (13% ASM-only). There are multiple uncertainties with the current system (i.e. observed trips are not representative of unobserved trips), which have <i>negative</i> biological impacts on regulated groundfish and other species. For all human at-sea monitoring coverage options: at-sea monitoring has indirect <i>low positive to positive</i> impacts on protected species, depending on the coverage level option, by providing information on interactions with fishing gear. For all human at-sea monitoring coverage options: impacts to EFH are <i>negligible to positive</i> , depending on the coverage level option.	Static monitoring costs – Estimated at 13% and 22%. At 13% \$0.86 - \$0.93 mil. and \$1.45-\$1.57 mil. at 22%. NEFOP contribution to observer coverage rates overall is about \$0.64 mil. Dynamic fleet and vessel impacts – Similar costs to static estimates above for 13% and 22% (\$0.9 mil. and \$1.5 mil. respectively). Aggregate fleet-wide revenue \$1 mil. lower under 13% coverage (\$70.8 vs. \$71.3 mil.). Increased cost may induce fisherman with higher operating costs to exit fishery. Larger vessels that participate more could see increase in gross revenue and operating profits. Enforceability and Compliance – Low and Low. The risk of non-compliance under status-quo levels of monitoring has a high risk of non-compliance with reporting requirements, and a very low ability for enforcement to detect and prosecute violations. Overall, if the industry bears the cost for monitoring (No Action) there will be negative impacts relative to status quo, since industry has been reimbursed for monitoring costs. Impacts are increasingly negative when risks of non-compliance and low enforceability are considered. Social Impacts — For all at-sea monitoring options: neutral to negative social impacts depending on the coverage level option. Higher at-sea monitoring coverage levels could produce negative impacts on crew attitudes if the increased costs result in decreases in crew compensation, and could exacerbate existing negative attitudes towards fisheries management.		
4.1.1.2	Sector Monitoring Standard Option 2 (Fixed total at-sea monitoring coverage level based on % of trips)	Higher levels of monitoring are expected to have positive biological impacts on groundfish and other species. In the short-term improvements in monitoring reduce fishing mortality through better catch accounting. In the long-term analytical assessments should improve with better catch data, thus improvements in catch advice and management.	Overall, the static and dynamic economic impacts of Option 2 range from neutral to negative (more negative as coverage rate increases). The risk of non-compliance and ability to enforce violations improves under higher coverage standards (higher scores under higher coverage standards). Overall, operating costs are higher (negative impacts from reduced profits) under higher coverage standards, but enforceability and risk of non-compliance improve under higher standards (positive impacts).		
	Sub-option 2A – 25%	A 25% fixed percentage coverage rate is expected to have <i>neutral</i> biological impacts relative to the No Action, and would continue to have <i>negative</i> biological impacts. Further, 75% of the groundfish trips would not have	<u>Static monitoring costs</u> - \$1.64-\$1.8 mil., similar to No Action at 22%. <u>Dynamic fleet and vessel impacts</u> – Aggregate fleet-wide revenue slightly higher than No Action 22% coverage (\$71.5 mil.). Operating profits slightly lower than 13% coverage, and equal to 22% estimate.		

Actions	s and Alternatives	Dire	ect and indirect impacts
		Biological and Physical	Economic and Social
		accurate estimates of discards since PDT analysis has shown that observed trips are not representative of unobserved trips.	Enforceability and Compliance - Low and Low.
	Sub-option 2B – 50%	Low positive compared to No Action (22% average coverage rate). This option would provide accurate estimates of groundfish landings and discards for half of all the groundfish trips. However, there is the potential for strong incentives to misreport on the unobserved trips under 50% coverage. Therefore, impacts to regulated groundfish from this option would still be considered to be negative, similar to the option for 25% coverage.	Static monitoring costs - \$3.24 - \$3.54 mil. Dynamic fleet and vessel impacts — Aggregate fleet-wide revenue slightly lower than at 25% (\$71.1 mil). Operating profits substantially lower than at 25% (\$48.2 mil, or \$2 mil. lower than at 25%). Enforceability and Compliance — Medium and Low.
	Sub-option 2C – 75%	Positive compared to No Action (22% average coverage rate). Since 75% of all groundfish trips will have accurate estimates of discards this option has positive biological impacts on groundfish and other species.	Static monitoring costs - \$4.57 - \$5.2 mil. Dynamic fleet and vessel impacts - Aggregate fleet-wide revenue higher than at 50% (\$72.3 mil). Operating profits lower than at 50% (\$47.6 mil). Enforceability and Compliance – Medium-high and medium.
	Sub-option 2D – 100%	Positive compared to No Action (22% average coverage rate). Discard mortality would be fully accounted for under 100% coverage.	Static monitoring costs - \$5.44 - \$6.0 at 91% ASM (assuming 9% NEFOP coverage). Dynamic fleet and vessel impacts - Aggregate fleet-wide revenue lower than 75% (\$71 mil). Operating profits lower than at 75% (\$46.2 mil). Enforceability and Compliance - High and High.
4.1.1.3	Sector Monitoring Standard Option 3 (Fixed total at-sea monitoring coverage level based on % of catch)	Higher levels of monitoring are expected to have positive biological impacts on groundfish and other species. The PDT completed a simulation analysis of what coverage levels would be necessary to achieve a given coverage rate of total catch for any given allocated stock. The simulations show that 50% coverage across all trips would result in a 90% probability that at least 25% of the total catch of every allocated stock was observed.	Overall, the static and dynamic economic impacts of Option 3 are negative (more negative as coverage rate increases). The risk of non-compliance and ability to enforce violations improves under higher coverage standards (higher scores under higher coverage standards). Overall, operating costs are higher (negative impacts from reduced profits) under higher coverage standards, but enforceability and risk of non-compliance improve under higher standards (positive impacts).
	Sub-option 3A – 25%	A 25% percentage coverage rate of total catch of each allocated groundfish stock is expected to have <i>low positive</i> biological impacts for regulated groundfish relative to the No Action. However, there are still concerns that the unobserved portion of groundfish trips would not have accurate estimates of discards since PDT analysis has shown that observed trips are not representative of unobserved trips.	Static monitoring costs - \$3.24 - \$3.54 mil. Dynamic fleet and vessel impacts — Aggregate fleet-wide revenue slightly lower than at 25% (\$71.1 mil). Operating profits substantially lower than at 25% (\$48.2 mil, or \$2 mil. lower than at 25%). Enforceability and Compliance — Medium and Low.

Actions and Alternatives	Dire	ect and indirect impacts
7 ionono una 7 inoniany oc	Biological and Physical	Economic and Social
Sub-option 3B – 50%	The simulation exercise showed that increasing coverage rates to 70% of trips would confer roughly a 90% chance that 50% of total catch was observed for each allocated groundfish stock. Thus, 50% monitoring coverage rate of total catch of each allocated groundfish stock is expected to have <i>positive</i> biological impacts. However, there are still concerns that the unobserved portion of groundfish trips would not have accurate estimates of discards since PDT analysis has shown that observed trips are not representative of unobserved trips.	Static monitoring costs - \$4.3 - \$4.8 mil. Dynamic fleet and vessel impacts (under 75% coverage): Fleetwide revenue may increase by \$1.4 million, offsetting static costs. Enforceability and Compliance — Medium and medium.
Sub-option 3C – 75%	Increasing coverage rates to 90% of trips would confer roughly a 90% chance that 75% of total catch was observed for each stock. Therefore a 75% percentage coverage rate of total catch of each allocated groundfish stock is expected to have <i>positive</i> biological impacts relative to the No Action. However, there are still concerns that the unobserved portion of groundfish trips would not have accurate estimates of discards.	Static monitoring costs - \$5.44 - \$6.0 at 91% ASM (assuming 9% NEFOP coverage). Dynamic fleet and vessel impacts - Aggregate fleet-wide revenue lower than 75% (\$71 mil). Operating profits lower than at 75% (\$46.2 mil). Enforceability and Compliance - High and High.
Sub-option 3D – 100%	Positive compared to No Action (22% average coverage rate). Discard mortality would be fully accounted for under 100% coverage.	Static monitoring costs - \$5.44 - \$6.0 at 91% ASM (assuming 9% NEFOP coverage). Dynamic fleet and vessel impacts - Aggregate fleet-wide revenue lower than 75% (\$71 mil). Operating profits lower than at 75% (\$46.2 mil). Enforceability and Compliance - High and High.

Actions	s and Alternatives	Dire	ect and indirect impacts
Actions	and Anternatives	Biological and Physical	Economic and Social
4.1.2	Sector monitoring to	ols (options for meeting monitoring standards)	
4.1.2.1	Sector Monitoring Tools Option 1 – EM in place of human at-sea monitors	Generally <i>neutral</i> impacts assuming data from EM equivalent to human observers. For stocks that are more difficult to identify from video (red hake), potential low negative impacts compared to human observers. But EM can monitor every tow and there is no potential for coercion or falsifying data. For all sector monitoring tools options: EM may have <i>indirect negative</i> impacts to protected species — potential loss of information on interactions. However, any loss of data is not expected to have a significant adverse impact. For all sector monitoring tools options: <i>low negative impacts</i> to EFH if substitution facilitates greater fishing effort.	Depending on the coverage level selected, this option may be more costly than human observers as year one equipment and installation costs are approximately \$10k per vessel. That equates to approximately 15-20 observed sea days. Video review can be anywhere from \$150 to \$700 per day. If video review for these vessels were to average \$400 per day, the Council would need to select an ASM level that induces more than approximately 35 observed sea days for vessels opting EM in place of ASM in order for this option to reduce costs. Distributional impacts expected – vessels that participate more, or are more efficient may have <i>positive economic impacts</i> (EM cheaper than human observers), and vessels that participate less may have <i>negative economic impacts</i> . Enforceability and compliance – low, and similar to scores above under each coverage level Social Impacts – For all Sector Monitoring Tools options: <i>Long-term neutral to positive social impacts</i> if EM is more cost effective than human at-sea monitors over time, but <i>short-term negative impacts</i> as a result of the initial costs associated with installing EM equipment and additional responsibilities that accompany the maintenance of EM systems.
4.1.2.2	Sector Monitoring Tools Option 2 – Audit model EM	If developed correctly, audit model EM should produce similar biological impacts to 100% human observer coverage, and <i>positive</i> biological impacts compared to current No action rates. Potentially low negative impacts for stocks difficult to identify from video.	Static monitoring costs – In year 1 cost of \$5.72 mil. (\$2.68 with subsidy); year2 = \$2.01 mil.; and year3 = \$1.23 mil. Enforceability and Compliance – High and High, but non-compliance still possible if review rate is low, cameras focused on discards rather than landings, and no dockside monitoring component. Overall, year 1 static monitoring costs are slightly higher than Sub-Option 3D, 100% ASM, but are significantly lower in subsequent years or under the subsidized scenario. Un-subsidized costs under Option 2 would have a negative impact on the fishery relative to No Action, and possibly more highly negative impacts relative to Status Quo.
4.1.2.3	Sector Monitoring Tools Option 3 – Maximized retention EM	If developed correctly, max retention EM should produce similar biological impacts to 100% human observer coverage, and <i>positive</i> biological impacts compared to current No action rates. Potentially low negative impacts for stocks difficult to identify from video. If there is a shift to targeting smaller younger fish likely negative biological impacts.	Static monitoring costs - In year 1 cost of \$5.19 mil. (\$2.15 with subsidy); year2 = \$2.15 mil.; and year3 = \$1.82 mil. Enforceability and Compliance - High and High, but non-compliance still possible if review rate is low, cameras focused on discards rather than landings, and no dockside monitoring component. Overall, year 1 static monitoring costs are slightly higher than Sub-Option 3D, 100% ASM, but are significantly lower in subsequent years or under the subsidized scenario. Un-subsidized costs under Option 2 would have a negative impact on the fishery relative to No Action, and possibly more highly negative impacts relative to Status Quo.

Actions and Alternatives		Direct and indirect impacts		
		Biological and Physical	Economic and Social	
4.1.3	Total Monitoring Cov	verage Level Timing		
4.1.3.1	Coverage Level Timing Option 1 (No Action)	Option 1/No Action and Option 2 would not be expected to have direct or indirect impacts on regulated groundfish species. This measure is administrative because it only affects the timing of information availability for business planning (<i>no impact</i>).	Low negative to the extent it affects the ability for businesses to anticipate annual operating costs and make participation decisions as a result. Vessels have been compensated so unclear what impacts have been to date. Indirect positive impacts if individuals able to forecast monitoring costs and compare costs across providers to adopt cost-minimizing strategies. Federal reimbursement has been uncertain so difficult to assess realized impacts.	
4.1.3.2	Coverage Level Timing Option 2 – Knowing total monitoring coverage level at a time certain			
4.1.4	Review process for sector monitoring coverage			
4.1.4.1	Coverage Review Process Option 1 (No Action)	Option 1/No Action would not be expected to have direct or indirect impacts on regulated groundfish species. This measure is primarily administrative (<i>no impact</i>).	No direct economic impacts are anticipated.	
4.1.4.2	Coverage Review Process Option 2 – Establish a review process for monitoring coverage rates	Establishing a review could have <i>indirect positive impacts</i> on groundfish from an evaluation of the efficacy of monitoring coverage rates to determine, for example, whether there is evidence of bias, and whether the monitoring standards are being met.	If review occurs more frequently than under Option 1/No Action, some positive economic impacts may result if issues with monitoring coverage levels or other components of the monitoring program are detected and determined to be suboptimal to achieve the goals of the program, such as if illegal behavior persists affecting ex-vessel markets, the ACE lease market, and reduced competitiveness among rule-followers and rule-breakers.	
4.1.5	Addition to list of framework items	This option would not be expected to have direct or indirect impacts on regulated groundfish species or other species. Impacts would be fully analyzed in future actions (no impact).	This measure is expected to have <i>neutral</i> economic impacts. There is no expectation that the establishment of this administrative measure will have any discernibly positive or negative economic impact.	
Action 2	,			
4.2	Commercial Groundfish Monitoring Program Revisions (Sectors and Common Pool)			
4.2.1	Dockside monitoring program (DSM) (Sectors and Common Pool)			

Actions and Alternatives		Direct and indirect impacts		
		Biological and Physical	Economic and Social	
4.2.1.1	DSM Option 1 (No Action)	In the absence of dockside monitoring, information on sector catches is expected to be less reliable, and it is possible that sectors could exceed their ACE, increasing the risk of overfishing. Under No Action, there is a much greater probability that landings could be misreported and/or underreported, which has occurred in the groundfish fishery in the recent past. Thus, <i>negative</i> impacts on groundfish and other species are possible under this option. For all dockside monitoring options: dockside monitoring has <i>no impacts, direct or indirect</i> , on protected species.	No direct economic impacts to the fishing industry since DSM costs will be similar to recent fishing years (\$0). Enforceability and Compliance — Low and low to medium, so indirect negative impacts. Reduced quota accountability decreases the functionality of the quota market to send appropriate price signals when quota is limiting and reduces the benefits of efficient harvesting strategies, such as decreased catch of nontarget stocks. Additionally, overharvesting degrades long-term fishing revenue. Social Impacts — Neutral to positive social impacts as this would maintain status quo of no DSM requirement, and could precipitate positive impacts on the attitudes and beliefs among fishery participants and stakeholders who have in the past voiced concerns with such a DSM program.	
4.2.1.2	DSM Option 2 – Mandatory DSM for entire commercial GF fishery	This option intended to deter misreported landings, and provide independent verification of groundfish landings; therefore, should result in increased certainty in the magnitude of groundfish catches at the species level. More accurate in-season monitoring of landings, which will help ensure that sectors do not exceed the ACE, and that common pool vessel do not exceed daily catch limits. This independent verification of catch will reduce the risk of overfishing. Therefore, <i>positive</i> biological impacts for regulated groundfish species and <i>low positive</i> for other species.	Low negative direct impacts since operating costs would increase, could increase consolidation into major ports to reduce monitoring costs, but increased dockside monitoring may lead to indirect positive economic impacts from increased quota accountability. Range of total dockside monitoring costs about \$900,000, approximately \$130 per trip, or about \$4,000 per vessel annually (in 2010 average cost was \$110 per trip). Additional uncertainties and caveats were explored and sensitivity analyses presented to provide greater range of possible costs. Common pool costs are expected to be higher than sector costs because over 50% of common pool offloads in minor ports. Predicted monitoring costs at vessel-level varies greatly, with larger proportion of total revenues for smaller vessels and vessels landing farther from major ports. For larger vessels over 50 feet, average costs for DMS ranges from 0.5% to under 3%. Enforceability and Compliance — High and high, but only ensures dockside reporting requirements unless coupled with at-sea monitoring. Social Impacts — Negative social impacts due to increased costs and responsibilities for commercial groundfish captains and crew.	
4.2.2	Dockside monitoring program structure and design			
4.2.2.1	DSM funding respons	DSM funding responsibility		
4.2.2.1.1	DSM Funding Responsibility Option A – Dealer responsibility	Option A and Option B would not be expected to have direct or indirect impacts on regulated groundfish or other species. This measure is primarily administrative, <i>no</i>	Direct economic impacts <i>are uncertain</i> Enforceability and Compliance: neutral, neutral	
4.2.2.1.2	DSM Funding Responsibility	impact.	Direct economic impacts <i>are uncertain</i> <u>Enforceability and Compliance:</u> neutral, neutral	

Actions and Alternatives		Direct and indirect impacts	
		Biological and Physical	Economic and Social
	Option B – Vessel responsibility		
4.2.2.2	DSM program adminis	stration	
4.2.2.2.1	DSM Administration Option A –Individual contracts with DSM providers	Option A and Option B would not be expected to have direct or indirect impacts on regulated groundfish or other species. This measure is primarily administrative, <i>no impact</i> .	Relative to Option B, economic impacts may be <i>neutral to low positive</i> , because of flexibility in contract negotiation, but may increase possible transaction costs. Enforceability and Compliance: neutral, neutral
4.2.2.2.2	DSM Administration Option B –NMFS administered, single DSM provider		Relative to Option A, economic impacts may be <i>neutral to low negative</i> , because of decreased flexibility in contract negotiation, but this option may minimize possible transaction costs.
4.2.2.3	Options for lower dock	L kside monitoring coverage levels (20% coverage)	Enforceability and Compliance: neutral, neutral
4.2.2.3.1	Lower coverage levels Option A Lower coverage levels Option B	Relative to No Action (no required dockside monitoring program), Option A and Option B would have <i>positive</i> impacts on regulated groundfish, since the dockside monitoring program is intended to deter misreported landings, and provide independent verification of groundfish landings, and therefore should result in increased certainty regarding the magnitude of	Compared to No Action (no DSM) this option has <i>low negative direct economic impacts</i> , less than 1% fleetwide revenue. Under 30% of recent offloads to ports with low gf landings and 50% of total DSM costs from these ports. If coverage reduced from 100% to 20% coverage at these ports, total estimated costs of DMS go to \$600,000 (from \$900,000), 39% reduction. <i>Enforceability and Compliance</i> – medium to high and medium to high. This includes about 100 unique or common pool vessels from 2016-2018, if coverage reduced to Compared to No Action (no DSM) this option has <i>low negative to negative direct economic impacts</i> . Coverage of 20% DSM for
			these vessels would cost about \$600,000, a 36% reduction from 100% DSM. Overall, low-volume vessels account for 65% of landed non-groundfish pounds, but only 2.3% of all landed groundfish pounds. <u>Enforceability and Compliance</u> - medium to high and medium to high.
4.2.2.4	Options for DSM safety and liability associated with fish hold inspections		
4.2.2.5.1	Fish hold inspection Option A – DSM fish hold inspections required	Fish hold inspections as part of a DSM help to ensure that all landings are accounted for, which therefore should result in increased certainty in the magnitude of groundfish catches at the species level. This independent verification of catch will reduce the risk of overfishing; positive biological impacts for regulated groundfish and low positive for other species.	Low negative to low positive impacts This option may increase the cost burden to either dealers or vessels, thus low negative economic impacts. However, without hold inspections, the ability to misreport landings is increased, and in a quota managed fishery there exists an incentive to evade quota constraints through misreporting or underreporting catch. Therefore, overall fish hold inspections are expected to have low positive impacts from improved compliance and enforceability of reporting requirements.

Actions and Alternatives		Direct and indirect impacts		
		Biological and Physical	Economic and Social	
4.2.2.4.2	Fish hold inspection Option B – Alternative methods for inspecting fish holds (cameras)	Similar positive and low positive impacts to Option A, provided that alternative methods (cameras) can account for all catch.	Neutral to negative impacts, relative to Options A or C due to possible increased cost burden associated with purchasing cameras, to the extent this occurs. Low positive impacts from improved compliance and enforceability of reporting requirements.	
4.2.2.4.3	Fish hold inspection Option C – No fish hold inspection required, captain signs affidavit	Low positive impacts since this option would not include an independent verification of catch, captain only.	This alternative would have <i>neutral economic impacts</i> relative to Option A, since neither requires vessels to purchase and maintain additional equipment, but potentially <i>positive economic impacts</i> relative to Option B, for vessels that do not already have cameras as part of an EM system. *Negative impact* on both compliance and enforceability relative to Option B or C since reducing the ability to perform hold inspections has been noted by enforcement to limit their capabilities to investigate possible illegal activities	
Action 3				
4.3	Sector Reporting			
4.3.1	Sector Reporting Option 1 (No Action)	Option 1/No Action and Option 2 would not be expected to have direct or indirect impacts on regulated groundfish	Neutral to low negative impacts on the groundfish fishery to the extent that it simplifies the reporting process and reduces transaction costs associated with complying with regulations.	
4.3.2	Sector Reporting Option 2 – Grant RA authority to streamline sector reporting requirements	species. This measure is primarily administrative (<i>no impact</i>).	Neutral to low positive impacts on the groundfish fishery to the extent that it simplifies the reporting process and reduces transaction costs associated with complying with regulations. In addition, if discards and ACE balances were determined more quickly, fishing businesses might make benefit from more certain financial planning, such as when to lease in or lease out quota.	
Action 4				
4.4	Funding/Operational provisions of groundfish monitoring program (Sectors and Common Pool)		and Common Pool)	
4.4.1	Funding Provisions Option 1 (No Action)	Option 1/No Action would not be expected to have direct or indirect impacts on regulated groundfish species. This measure is primarily administrative (<i>no impact</i>).	Neutral to high negative impacts on the groundfish fishery, depending if and what the degree of funding limitations might be for NMFS to administer the program.	
4.4.2	Funding Provisions Option 2 – Provisions for an increase or decrease in funding for the GF monitoring program			
4.4.2.1	Funding Provisions Sub-option 2A – Higher monitoring coverage levels if NMFS funds are available (Sectors Only)	Sub-Option 2A would be expected to have <i>indirect positive</i> impacts on regulated groundfish species, as there is a potential for higher monitoring coverage levels under this option.	Neutral to strongly positive impacts relative to No Action/Option 1 depending on the coverage rate and programs selected under Sector Monitoring Standards and Tools since it could cover up to 100% of monitoring costs in a given year which could compromise a significant proportion of operating costs in any given year.	

Actions and Alternatives		Direct and indirect impacts		
		Biological and Physical	Economic and Social	
4.2.2.2	Funding Provisions Sub-option 2B – waivers for monitoring requirements allowed (Sectors and Common Pool)	Sub-Option 2B would be expected to have <i>indirect low negative</i> impacts on regulated groundfish species, as there is a potential for lower monitoring coverage levels under this option.	Positive impacts on fishing businesses to the extent that fishing effort would be constrained by the monitoring standard and coverage rate selected in this action.	
Action 5	,			
4.5	Management uncert	ainty buffers for the commercial groundfish fishery (Sec	tors only)	
4.5.1	Management Uncertainty Buffer Option 1 (No Action)	Option 1/No Action would likely have <i>neutral to low positive</i> biological impacts to regulated groundfish, as management uncertainty buffers are a part of the ACL-setting process, designed to constrain fishing effort to allowable levels. Maintaining current management uncertainty buffers would likely keep the groundfish	Overall, the direct economic impacts of Option A/No Action are the loss of potential fishery revenue, 3-7% of each stock's ACL, which has a <i>neutral to low-negative impact</i> on the fishery, depending on the stock and fishing effort in any given year. Enforceability and Compliance – neutral and neutral to low negative.	
		fishery operating at current levels, and changes in effort would not be expected.		
4.5.2	Management Uncertainty Buffer Option 2 – Elimination of management uncertainty buffer for Sector ACLs with 100% monitoring of all sector trips	It is difficult to predict whether the removing the buffers would result in substantial increases in fishing effort. This option has the potential to increase fishing effort and landings since setting the buffer to zero would result in higher sector ACLs. Therefore, relative to No Action, Option 2 has the potential to result in <i>low negative</i> impacts on regulated groundfish. However, 100% monitoring is required to select Option 2, and having comprehensive monitoring would essentially create a	Under FY18 conditions, a ~3-5% increase in the sector sub-ACLs allows fleetwide catch and revenues from groundfish to increase by 7-8%, and overall catch and revenue to increase by greater than 5% (~5.5%). However, compared to No Action, monitoring costs under any of the 100% coverage options (ASM, EM, or blended) increase operating costs and decrease operating profits relative to status quo, meaning the direct economic impact is <i>low-negative to negative</i> . Enforceability and Compliance – high and high.	
		census of commercial catch. This would provide positive impacts to regulated groundfish as there would be greater certainty in the magnitude and age structure of the commercial catch, and lower risks of the sector ACL being exceeded. Impacts on protected species range from direct low negative to negative impacts , to indirect low positive impacts . This option has the potential to increase fishing effort, which would have negative impacts on protected species. However relative to Option 1/ No Action, Option 2 may also result in indirect positive impacts to protected species since 100% monitoring is required to select Option 2.	Overall, while operating expenses increase under Option 2 relative to No Action, where No Action represents status quo levels of monitoring, revenues are maximized under this option relative to other monitoring options in this action, maximizing operating profits relative to the other 100% monitoring options in this action.	

Actions and Alternatives		Direct and indirect impacts		
		Biological and Physical	Economic and Social	
Action 6				
4.6	Remove commercial	groundfish monitoring program requirements for certain	n vessels fishing under certain conditions	
4.6.1	Removal of monitoring requirements Option 1 (No Action)	Under Option 1/No Action, impacts on regulated groundfish are expected to be <i>low negative</i> because reducing observer coverage also reduces the precision of discard estimates. Groundfish catches are low on these trips, but have the potential to introduce bias if not applied across all broad stock areas – limiting the ability of using info in stock assessments. For all removal of at-sea monitoring requirements: Impacts on protected species are <i>(directly and indirectly) low negative to negative</i> . Reducing monitoring coverage may result in increased fishing effort in these areas, and results in loss of data on interactions with fishing goars.	No Action has positive economic impacts on the groundfish fishery to the extent that it minimizes monitoring costs, but may carry some risk of noncompliance since discards and landings are not independently verified and incentives for non-compliance exist in the fishery, even when catch of allocated stocks may be small. Social Impacts - For all removal of monitoring requirements: neutral social impacts for commercial groundfish fishery participants and communities, since the measures to remove monitoring requirements apply to vessels that catch very few groundfish and primarily target non-groundfish stocks and species.	
4.6.2	with fishing gear. Removal of monitoring requirements Option 2 – Vessels fishing exclusively west of <u>72 30 W</u> would not be subject to monitoring requirements on trips in that area			
4.6.2.1	Removal of monitoring requirements Option 2A (Sectors only)		Because of the low levels of groundfish landings in this area, exempting these trips from monitoring coverage is expected to result in positive economic impacts to those who fish in the exempted area, but <i>neutral</i> economic impacts on the fishery as a whole, relative to No Action/Option 1. Enforceability and Compliance – neutral to positive and positive. May nevertheless incentivize increased effort and possibly illegal behavior in the	
4.6.2.2	Removal of monitoring requirements Option 2B (Sectors and Common Pool)		fishery in order to avoid observer costs as well as costs imposed Direct economic impacts of Sub-Option 2B are <i>low positive</i> to <i>positive</i> when compared to a comprehensive DSM program under Option 2, alternative 7.4.4.1.2. Overall direct economic impacts are <i>low positive</i> because the overall cost reductions of this alternative are small compared to the estimated cost of a comprehensive DSM program, but distributional impacts may be more <i>strongly positive</i> . <u>Compliance/Enforceability:</u> Indirect economic impacts may be low negative relative to No Action due to <i>possible negative impacts</i> on compliance and enforceability of reporting requirements	
4.6.3	Removal of monitoring	g requirements Option 3 – Vessels fishing exclusively west of	f <u>71 30 W</u> would not be subject to monitoring requirements on trips in that area	
4.6.3.1	Removal of monitoring	Negative biological impacts to regulated groundfish from Option 3A and 3B, as lower monitoring coverage would	Compared to Sub-Option 2A, levels of groundfish landings in the proposed exemption area are substantially higher, exempting these trips from monitoring	

Actions and Alternatives		Direct and indirect impacts		
		Biological and Physical	Economic and Social	
	requirements Option 3A (Sectors only)	likely reduce the accuracy of catch estimates. Catch composition for groundfish on trips fishing in this area is relatively low for some stocks, but substantial for others (S. windowpane, SNE/MA winter flounder, SNE/MA YT flounder, and ocean pout). Some of these stocks are in rebuilding plans. Impacts on GOM and GB stocks are expected to be <i>low negative</i> , but impacts on SNE/MA stocks expected to be <i>high negative</i> .	coverage is expected to result in <i>positive to high positive economic impacts</i> to those who fish in the exempted area, but at most low positive economic impacts on the fishery as a whole, relative to No Action/Option 1, depending on the coverage rate selected under 4.1.1.1. <u>Compliance/Enforceability:</u> Compared to Sub-Option 2A, this option is expected to have <i>negative</i> effects on compliance since it affects a larger proportion of total fishing effort. With respect to enforceability, this alternative is expected to have <i>neutral to low negative</i> impacts compared to No Action and neutral to low negative impacts relative to Sub-Option 2A.	
4.6.3.2	Removal of monitoring requirements Option 3B (Sectors and Common Pool)		Exempting trips in this area from monitoring coverage is expected to result in positive to high positive economic impacts to those who fish in the exempted area, and low positive to positive economic impacts on the fishery as a whole, relative to No Action/Option 1, depending on the DSM coverage rate selected under 4.1.1.1. <u>Compliance/Enforceability:</u> Compared to Sub-Option 2B, this option is expected to have negative effects on compliance since it affects a larger proportion of total fishing effort. With respect to enforceability, this alternative is expected to have negative impacts compared to No Action and low negative impacts relative to Sub-Option 2B since it may reduce the ability for enforcement to detect misreporting dockside.	
4.6.4	Review process for vessels removed from commercial groundfish monitoring program requirements			
4.6.4.1	Vessels removed from monitoring requirements do not have formal review process (No Action)	This option would not be expected to have direct or indirect impacts on regulated groundfish species. This measure is primarily administrative, <i>no impact</i> .	There may be some <i>negative, indirect economic impacts</i> if no review process is implemented and changes in effort or catch composition by exempted vessels change drastically.	
4.6.4.2	Implement a review process for vessels removed from commercial groundfish monitoring program requirements	Requiring a periodic review could have <i>indirect positive impacts</i> on groundfish by confirming that measures for removal of monitoring requirements are not impacting estimates of groundfish catch. If impacts are found in the review exemptions can be revisited.	Overall, this alternative is expected to have <i>neutral</i> economic impacts since it is not expected that a review will impose any additional costs on fishing businesses. <u>Compliance/Enforceability:</u> Neutral to low positive impacts on compliance relative to status quo if it limits potential effort shifts in the two years before the review begins, however, if fishermen have a high discount rate, they may still perceive that benefits associated with reducing or eliminating short-term (1-2 year) monitoring costs to be worth shifting operations to an exempted area, depending on whether Option 2 or 3 is ultimately selected.	