# EXECUTIVE SUMMARY FOR DRAFT ANALYTICAL DOCUMENT FOR A REGULATORY AMENDMENT UNDER THE PACIFIC COAST GROUNDFISH FISHERY MANAGEMENT PLAN - WEST COAST ELECTRONIC MONITORING PROGRAM

This Executive Summary is intended to provide the Council and the public with an overview of the forthcoming *Draft Analytical Document for a Regulatory Amendment Under the Pacific Coast Groundfish Fishery Management Plan - West Coast Electronic Monitoring Program.* Here we include a summary of the problem and the alternatives to assist the Council in understanding potential impacts of the alternatives while considering the recommendations provided by the Council's Ad Hoc Groundfish Electronic Monitoring Policy Advisory and Technical Advisory Committees (GEMPAC/TAC) (Agenda Item F.5.a, GEMPAC Report 1).

# **Background**

The Council began developing an electronic monitoring (EM) program in 2011 to explore a cost-effective and flexible option to monitor the catch share program. The Council recommended that the Pacific States Marine Fisheries Commission (PSMFC) assist in the development of the program framework, develop reporting and review protocols, and conduct video review for fishery participants. As the regulations were being developed, PSMFC began testing the EM program framework through exempted fishing permits (EFP). This allowed the Council to examine any issues that arise and modify the program and regulations over time to ensure the program was flexible and cost effective, prior to full implementation of the regulatory program.

Between 2016 and 2020, National Marine Fisheries Service (NMFS) published rules implementing a regulatory framework for the EM program. The full history for development of this action can be found on the Council's <u>website</u>. In 2021, however, the Council recommended that implementation of the program be delayed until there was further support and participation by the industry for the EM program and to provide participants additional time to prepare for implementation. NMFS issued an interim final rule to delay the start of the program and effectiveness of the Federal regulations until at least January 1, 2024.

At the beginning of 2022, the Council began scoping several issues brought forth by the industry via the GEMPAC/TAC. Based on recommendations from those groups, the Council adopted a <u>range of alternatives in November 2022</u> with the expectation to take final action at the March 2023 Council meeting.

The EM program is a key complement to the observer program in providing the monitoring needed to ensure that the catch share program provides the individual accountability on which the program's flexibility and benefits are based, while potentially limiting increases in program costs. In short, this action is needed because current regulatory deadlines that apply to EM video providers for submission of required EM feedback reports to fishing vessels, video review data summary reports, and logbook data to NMFS may need to be revised to create more flexibility in the program requirements, in turn, reducing EM provider costs, and hence vessel costs. In addition, the regulations need to be clarified to provide the flexibility for EM providers as intended regarding

<sup>1</sup> Regulations will only become effectives after NMFS issues a public notice at least 90 calendar days before it will begin accepting applications for EM authorizations for the first year of the program.

the process for evaluating and summarizing EM video review data. Therefore, the Council is considering changes to the current requirements and deadlines in the Federal regulations, and changes to Federal regulations pertaining to the EM Manual that guides EM providers on how to comply with the regulations and video review performance standards.

# **Analysis of Problem**

When program regulations become effective, vessels will be required to provide logbook information within 24 hours of completion of the trip to NMFS or its agent (in this case, the video reviewer). Hard drives must be mail-postmark within 72 hours of landing; however, they are typically sent with logbooks within the 24-hour mark as shown in Figure 1. The video reviewer will then be required to convey that information to NMFS within two business days and complete the video review and submit reports within 3 weeks (as depicted in Figure 1). During this last phase of development and implementation of the EM program, PSMFC has been serving as the EM reviewer with the intent of providing services that generally meet the standards specified in regulation, including meeting the time frames for processing and reviewing logbook and video data. During the development phase, these timelines for the vessel operator and video reviewer have been targets rather than regulatory requirements.

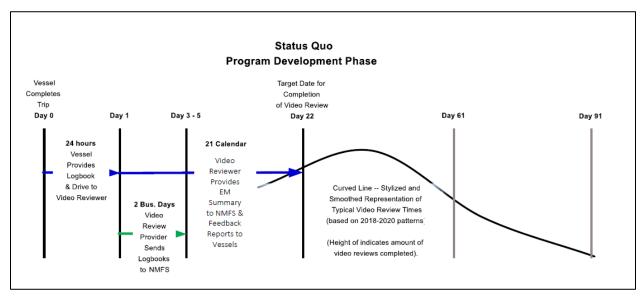


Figure 1. Schematic representation of video review time frames and pattern of review completion in the 2018-2020 period. Note: Hard drives must be mail-postmark within 72 hours of landing; however, they are typically sent with logbooks within the 24-hr mark as shown.

In the first years that PSMFC provided these services, it was relatively successful in meeting the three-week turn-around target (Figure 2, blue bars for years 2015-2017), however, as total participation increased (Figure 2, navy line, secondary axis), its ability to meet this target has fallen off (Figure 2, orange, grey and yellow bars for years 2018-2020). The height of curved line indicates very generally the pattern of completion of video review of the last several years.

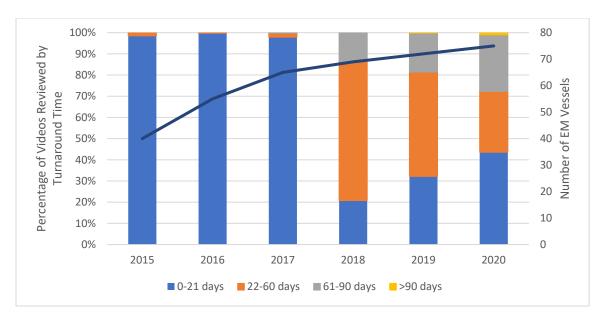


Figure 2. Percentage of videos reviewed by turnaround time from 2015-2020 (bar graph; left axis) and the number of vessels participating in the EM EFPs (line graph; right axis).

The delays beyond the three-week turn-around time are largely due to capacity overload associated with peaks (annual high points) and pulses (surges in demand within or outside of peaks) in the number of trips there are to be reviewed. Historically, there are higher volumes in late spring through fall (Figure 2). EM providers could consider hiring additional video reviewers, but that presents its own challenges. For example, if additional permanent employees were hired, there would be periods of time during which their specialized skills would not be needed. If they are kept on during periods of low demand, program costs would escalate, and fees paid by industry would be higher. Alternatively, video reviewers could try to hire seasonal workers to cover peak demand and maintain reviewers on-call to handle pulses, but this approach also has its costs as it can be difficult to find skilled seasonal workers who might be readily available at high-demand times. Often, when steady reliable work cannot be provided, there is higher job turn-over which can lead to additional costs related to finding and training replacements. The challenges of peaks and pulses in the demand for video review is endemic to fishing patterns. It will not be resolved regardless of how many companies are providing the services or whether the proportion of the trips that need to be reviewed declines.<sup>2</sup>

In addition to the three-week review turn-around time, there is a requirement that logbooks received from vessels be transmitted to NMFS within two business days. Like the three-week turn-around time, the two-day turn-around time can be challenging during peaks and pulses.

Given the potential costs in meeting the current deadlines, the Council is considering an extension of both the video review deadlines (Alternatives 2 and 3) and the logbook submission deadline (Alternative 4). The forthcoming draft analysis will provide a more complete analysis of the impacts regarding the extension of these deadlines.

In addition, there is concern that the regulatory language that specifies that a "standardized estimation method" needs clarity and correction. The current regulatory language can be

<sup>&</sup>lt;sup>2</sup> For example, PSMFC has been reviewing 100 percent of the video, but under no action, review levels for vessels in some strategies may be 25 percent.

interpreted that only one specific method must be used by all EM providers. The language also incorrectly directs EM providers to "determine an estimate of discards for each trip" versus the correct language of 'hauls.'

The intent of the original regulatory language was to guide each qualified provider to develop a method for discard estimation using general protocols outlined in the EM Manual that provides NMFS the desired data and for NMFS to determine if the data is collected consistently and appropriately by each EM provider. However, it is unclear whether the language that refers to a "standardized estimation method" provides the intended flexibility and where to find this method. Alternative 5 proposes language to direct EM providers to the EM Manual for the prescribed review methodology as specified by NMFS. In addition, the proposed language removes some incorrect regulatory language that refers to the development of discard estimates (should be hauls not trips) and refers the EM provider to the EM Manual for a description of the method. The intent of the proposed changes would ensure performance standards provide the flexibility that allows for innovation and improvements that can potentially result in lower costs and greater benefits.

The EM Manual provides the general protocols for EM providers to follow to conduct the logbook audit (See steps 1-8 in Section 2.2.1 Overview of the Logbook Audit Model). The steps to conduct the logbook audit protocols would not change if the "standardized estimation method" language was removed from the regulations. EM providers would benefit from clear and consistent language between the regulations and the EM Manual.

## **Description of Alternatives**

During the November 2022 meeting, the Council adopted a <u>range of alternatives for public review</u>.

- Alternative 1 No Action
- Alternative 2 No More than 60 Days to Submit Feedback/EM Summary Reports
- Alternative 3 No More than 90 Days to Submit Feedback/EM Summary Reports
- Alternative 4 No More than Seven Business Days for EM Providers to Submit Logbooks to NMFS
- Alternative 5 Revise EM Discard Data Review Language

The analysis summarized here, and in forthcoming analysis, is organized around status quo, no action, and four action alternatives (Alternatives 2 through 5, Table 1). Status quo is the current interim EM program that has been in place for the developmental phase. That program is guided but not bound by the EM regulations that have been published (see 50 CFR 660 Subpart J). The No Action alternative is considered to be full implementation of the program under the current regulations, EM Manual and EM Guidelines, which are expected to start on January 1, 2024. Alternatives 2, 3, and 4 would address the purpose and need by modifying submission deadlines in federal regulations regarding vessel feedback reports, summary reports and logbook submissions. In addition, Alternative 5 was developed to address the purpose and need by clarifying in the regulations and EM Manual how EM discard data should be estimated via the video review process. Among the action alternatives, only Alternatives 2 and 3 are mutually exclusive. The additional time for logbook transmission provided in Alternative 4 would run concurrent with the video review turnaround time, so there would be no direct interaction between it and Alternatives 2 or 3 (Alternative 4 would not create longer turnaround times for Alternatives 2 or 3 and resulting benefits would be additive).

Table 1. Comparison of basic differences among the alternatives.

	Status		Action Alternatives a/			
	Quo (Prog Devel/ PSMFC)	Alternative 1 (No Action)	Alt 2 (30 Day Review Turnaround)	Alt 3 (60 Day Review Turnaround)	Alt 4 (7 Day Logbook Transmission)	Alt 5 Regulatory Clarification
Turn Around Time	Up to 60 (in practice)	3 weeks	60 Days	90 Days	3 weeks	3 weeks
Logbook Transmission to NMFS	2 to 7 business days (in practice)	2 business days	2 business days	2 business days	7 business days	2 business days
	Percent of Hauls Reviewed					
Midwater Trawl (max retention)	100%	100%	100%	100%	100%	100%
Bottom Trawl (optimized retention)	100%	25%	25%	25%	25%	25%
Fixed Gear (optimized retention)	100%	25%	25%	25%	25%	25%
Regulatory Clarification	Not Included				Included	

a/ Among the action alternatives, only Alternatives 2 and 3 are mutually exclusive.

# Summary of Status Quo, Alternatives and Impact Analyses Status Quo

As stated earlier, PSMFC currently provides video review services for all vessel participants to assist in the development of the West Coast EM Program. Per the Council's direction and as the video review provider, they review 100 percent of all videos received via the video review protocols outlined in the manual and provide feedback reports to vessels and EM summary reports to NMFS. Estimated costs regarding the status quo are shown in Table 2. These estimates are based on the status quo review activities, which have experienced a data turnaround time of approximately 40-60 days and 100 percent video review.

Table 2. Status Quo - Estimated PSMFC EM Review Costs by Fleet at variable rates of review with current turnaround time of ~40-60 days (from hard drive receipt until vessel accounts are debited).

	Per Sea Day 100% Review		
	Midwater Trawl	Fixed Gear (Pot)	Bottom Trawl
Review Time Variable Cost (video review)	\$16.61	\$185.62	\$247.75
Review Time Fixed Costs*	\$50.08	\$50.08	\$50.08
Admin Cost**	\$47.15	\$47.15	\$47.15
Archive Storage Cost	\$0.36	\$0.25	\$0.35
TOTAL PER SEA DAY	\$114.20	\$283.10	\$345.33
TOTAL FLEET COST	\$353,796	\$73,889	\$119,311
PSMFC TOTAL EST. PROGRAM COSTS FOR REVIEW		\$546,995	

<sup>\*</sup>Other review work includes tracking, reporting, communication with vessels, etc.

Note: Table does not include cost of EM equipment, maintenance of EM equipment or reviews that fail and must be reviewed at 100 percent.

#### Alternative 1 - No Action

The No Action alternative is full implementation of the program starting January 1, 2024, under the current regulations, EM Manual and EM Guidelines. Under No Action, there would be no change to the requirement to submit logbook data to NMFS within two business days after receipt from a vessel operator. Also, the regulatory requirements for EM Providers to submit feedback to vessels and EM summary reports to NMFS would remain at three weeks after receipt of logbooks and EM data from the vessel. Finally, the regulatory language that requires EM Providers to analyze EM data "for each trip using standardized estimation methods specified by NMFS" would remain as is.

<sup>\*\*</sup>Program management, logbook data entry, QA/QC, database maintenance, mailing hard drives, etc.

However, under No Action, we assume that the video review rate protocols set up in the EM Manual would be applied as well. If so, then the review percentage requirements may be as low as 25 percent for optimized retention (bottom trawl and fixed gear vessels) and 100 percent for maximized retention (i.e., whiting and non-whiting midwater trawl). To establish a baseline for cost estimates, we assume that all vessels would be reviewed at these rates with a turnaround time of three weeks for EM feedback reports and NMFS summary reports as well as a 2-business day submission time for logbooks. Since the No Action has not been implemented yet and the fishery has not operated under these potential review rates, we must create estimates of potential costs under No Action (Table 3) in order to compare the potential impacts of the action alternatives. Based on this, we note that costs are estimated to increase beyond what is currently seen under Status Quo. Even though the review rates may decrease from 100 percent to 25 percent for optimized retention fisheries (bottom trawl and fixed gear), the cost of additional effort to accommodate the three-week turnaround time causes an increase in variable costs.

Table 3. Alternative 1 (No Action) - Estimated PSMFC EM Review Costs by Fleet at variable rates of review with a 21-day turnaround (from hard drive receipt until vessel accounts are debited).

	Per Sea Day 100% Review	Per Sea Day 25% Review	
	Midwater Trawl	Fixed Gear (Pot)	Bottom Trawl
Review Time Variable Cost (video review)	\$23.97	\$75.96	\$112.72
Review Time Fixed Costs*	\$72.26	\$72.26	\$72.26
Admin Cost**	\$47.15	\$47.15	\$47.15
Archive Storage Cost	\$0.36	\$0.25	\$0.35
TOTAL PER SEA DAY	\$143.75	\$195.63	\$232.49
TOTAL FLEET COST	\$445,337	\$51,059	\$80,324
PSMFC TOTAL EST. PROGRAM COSTS FOR REVIEW		\$576,720	

<sup>\*</sup>Other review work includes tracking, reporting, communication with vessels, etc.

Note: Table does not include cost of EM equipment, maintenance of EM equipment or reviews that fail and must be reviewed at 100 percent.

<sup>\*\*</sup>Program management, logbook data entry, QA/QC, database maintenance, mailing hard drives, etc.

#### Discussion of Action Alternatives

The action alternatives are intended to provide flexibility that will enable video reviewers to reduce costs. This would be achieved by increasing the turnaround times and clarifying that different reviewers may follow different protocols (as long as they are approved by NMFS) rather than a protocol that is standardized across reviewers. The flexibility provided through both of these means facilitates business innovation in methods and procedures that could reduce industry costs and have a positive impact on benefits to the nation. At the same time, there would potentially be some negative impacts that need to be considered, including both the likelihood of those possible negative impacts and, if probable, their degree of impact. These include potential adverse impacts on vessel costs, individual accountability, data completeness, and conservation.

With respect to vessel costs, there could be an upward influence on vessel related costs as a result of delays between when trips are completed and when initial logbook data entered into the quota pound (QP) accounting system (Alternative 4) and that data is updated based on completion of the video review (Alternatives 2 and 3).

With respect to individual accountability, the positive benefits expected from the trawl catch share program, implemented as Amendment 20, are largely grounded in the flexibility that is provided to vessels through the individual accountability of individual quotas. Individual accountability depends on compliance. The forthcoming analysis will discuss whether the alternatives might have a short-term impact on detection of vessel non-compliance, and, if so, the potential long-term impact on the compliance ethic in the fishery and consequences of such an impact.

The next area of consideration has to do with whether a delay in the completion of video review might impact data completeness.

Finally, is the question of whether any impact on data might have a noticeable effect on conservation.

These actions are largely administrative, and it is not expected to impact the natural environment. Fishery participants under the EM program would likely not be negatively affected. It's expected that an extension of the regulatory deadlines and clarifications of regulations pertaining to the intended flexibility of specifications in the EM Manual would provide positive benefits to participants, create some efficiencies and lower overall costs of the program.

#### Alternatives 2 and 3

Alternatives 2 and 3 would extend the timeline for EM providers to provide feedback to vessels and a summary report to NMFS from three weeks (21 days) to 60 days (Alternative 2) or 90 days (Alternative 3). Given that these alternatives are mutually exclusive, they are discussed here to compare.

When the regulations were initially developed, the 21-day turnaround time seemed reasonable. However, with more vessels joining the program (see navy line on Figure 2), the amount of data needing review increased resulting in longer review times. While the amount of video review required will be lessened under all alternatives when the program is in place (as low as 25 percent for bottom trawl and fixed gear vessels and will be 100 percent for midwater trawl under full retention), the effects of the peaks and pulses on video review time will still be present.

Compared to No Action, extending the timeline to 60 or 90 days will provide providers with additional flexibility to handle peak time periods, including being able to hire more staff at specific

time periods. However, with a longer review time period, participants may experience longer timelines between video submission and review reports which may ultimately impact the amount of QPs debited from their IFQ accounts.

Additionally, we expect some minor changes to NMFS administration of the EM program regarding Alternative 2 and 3. NMFS would continue to receive the EM data, but on a less frequent timeframe to update the quota share accounts. In addition, this may delay any secondary review that is conducted by NFMS to conduct quality control checks on EM providers.

Enforcement relies on the EM feedback reports to identify any issues identified during review, including delays in hard drive and logbook submissions. Therefore, a longer time frame to receive reports could cause delays in follow-ups with vessels. The timeliness of the follow-ups not only provides vessels feedback on the importance of the timeliness of their submissions but also, in cases where an infraction is suspected, allows enforcement to begin its investigation while evidence and witnesses are still available. This ability is essential to effective enforcement which in turn contributed to a positive compliance environment.

While a vessels costs for video reviewer may go down, the main upward influence on costs to participants under Alternative 3 compared to Alternative 2 (or No Action) is the potential delay in information resulting from the longer review time. For example, vessels could go into deficit if there are discrepancies between the logbook and EM data on multiple trips that are adjusted for once the data is revised sometime later. There is also an increase likelihood that there could be delays in finalizing the year-end mortality reports provided by West Coast Groundfish Observer Program. Due to these delays, vessels might find themselves needing more QP at a time of year when that QP is in short supply for some species.

Cost estimates for Alternative 2 are provided in Table 4. Cost estimates were not created for Alternative 3; however, compared to No Action and Alternative 2, we expect a significant to nominal decrease, respectively in variable and fixed costs, (i.e., number of fulltime staff, review time, tracking, reporting, communication with vessels) since the rate of effort required to review may be lower if the turnaround time is extended under Alternative 2 and 3.

Table 4. Alternative 2 - Estimated PSMFC EM Review Costs by Fleet at variable rates of review with a 40-60-day turnaround (from hard drive receipt until vessel accounts are debited).

	Per Sea Day 100% Review		5% Review	
	Midwater Trawl	Fixed Gear (Pot)	<b>Bottom Trawl</b>	
Review Time Variable Cost (video review)	\$16.61	\$52.64	\$78.11	
Review Time Fixed Costs*	\$50.08	\$50.08	\$50.08	
Admin Cost**	\$47.15	\$47.15	\$47.15	
Archive Storage Cost	\$0.36	\$0.25	\$0.35	
TOTAL PER SEA DAY	\$114.20	\$150.12	\$175.69	
TOTAL FLEET COST	\$353,796	\$39,181	\$60,701	
PSMFC TOTAL EST. PROGRAM COSTS FOR REVIEW \$453,677				

<sup>\*</sup>Other review work includes tracking, reporting, communication with vessels, etc.

Note: Table does not include cost of EM equipment, maintenance of EM equipment or reviews that fail and must be reviewed at 100 percent.

#### Alternative 4

Under Alternative 4, vessel operators would still need to submit logbook data to their EM provider within 24 hours of landing. However, EM providers would be required to submit logbook data to NMFS within seven business days of receipt from the vessel operator, rather than 2 business days required regulation set to go into effect (Figure 3). The timeline for the data to be entered, verified as accurate, and then submitted to NMFS is challenging to meet when several vessels submit logbooks at one time; however, logbook submissions rarely exceeded seven days under Status Quo (pers. comm. PSMFC). Therefore, this alternative was developed by the GEMPAC to provide more flexibility to EM providers to meet this deadline.

This alternative would help to reduce video reviewer costs in that they would not have to add personnel to handle peaks in pulses in logbook and hard drive submission. This change would not impact the video review deadline. The deadlines are not sequential, both are set based on the date the vessel provides its logbook and hard drive to the video reviewer.

<sup>\*\*</sup>Program management, logbook data entry, QA/QC, database maintenance, mailing hard drives, etc.

As discussed under Alternative 3 with respect to an allowance for more time to complete a video review, a longer time to submit logbook data may result in a delay in updating vessel accounts with that information. It's unclear if vessel operators and account holders rely solely on the logbook to strategize subsequent fishing trips before that data is incorporated into their account balances. However, we would expect fisherman to personally monitor discards via their logbooks and track any change in their quotas to prevent surprise overages once their logbook data is incorporated into the system, especially for high-demand species like sablefish. Alternative 3 may create more flexibility to manage data flow and hard drive submissions, in turn preventing back log of data and potential increases in costs. We do not expect substantial changes in Enforcement or NMFS administration of the logbook data if the deadline is changed; therefore, we expect impacts of Alternative 4 to be similar to the No Action. As noted, quota share account updates would be less timely since initial debits to accounts are based on logbook information. Enforcement would continue to monitor and enforce deadlines for submission of the logbook.

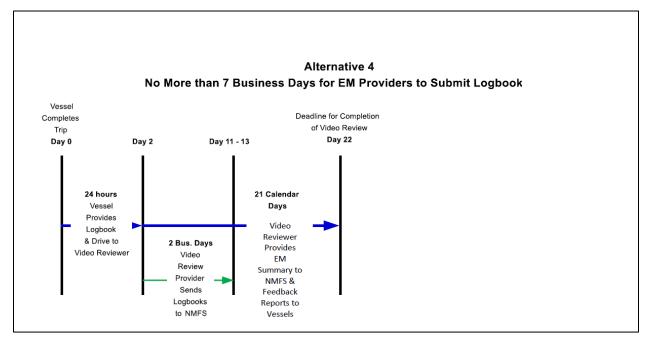


Figure 3. Schematic of logbook timeline for submission to video review provider and NMFS under Alternative 4. Note: Hard drives must be mail-postmark within 72 hours of landing; however, they are typically sent with logbooks within the 24-hr mark as shown.

Note that the extension of the turnaround time for transmission of logbook information proposed in Alternative 4 does not directly interact with the extension of the video review time in Alternatives 2 and 3 in that deadlines are not sequential, the additional submission time does not extend the amount of time provided for completion of the video review. The indirect interaction is that the flexibility provided for processing logbook submissions could help buffer the challenges in dealing with the video review schedule if the same personnel are employed in both activities. There is no interaction between Alternative 4 and Alternative 5.

#### Alternative 5

Under alternative 5, the language at 50 CFR 660.603(m)(1) would be revised from:

"The EM service provider must process vessels' EM data and logbooks according to a prescribed coverage level or sampling scheme, as specified by NMFS in consultation with the Council, and determine an estimate of discards for each trip using standardized estimation methods specified by NMFS. NMFS will maintain manuals for EM and logbook data processing protocols on its website."

to be:

"The EM service provider must process vessels' EM data and logbooks according to a prescribed review methodology, as specified by NMFS in the EM Manual on its website."

The suggested changes are intended to clarify the method being described in the EM Manual. In addition, the current regulatory language is incorrect since it specifies that EM providers are required to *determine an estimate of discards for each trip*. Rather the estimation method outlined in the EM Manual requires sampling percentages to be *based on the hauls* for each trip (See Step 5 in Section 2.2.1 of EM Manual - Overview of the Logbook Audit Model).

Under Alternative 5, it's expected that clarification of the estimation method language in the regulations and the EM manual would not affect EM participants (i.e., vessel operators and quota shareholders, or enforcement) since this information is only applicable to EM providers and NMFS West Coast Region. Impacts to EM providers are not expected either under Alternative 5 since EM Providers would still need to seek approval from NMFS to be an EM provider and still be required to estimate a subset of all EM video to validate the discards identified and estimated in the logbook as discussed under the No Action Alternative. EM providers would benefit from clear and consistent language between the regulations and the EM manual. It would also allow flexibility for an EM provider to develop its own methods that meet the requirements.

NMFS administration would likely not be impacted as they would continue to work with EM providers seeking approval as a provider, conduct quality control checks, assist providers to refine their methods to get the desired results for management of quota share accounts and ensure the collection of other pertinent information.

The Council may want to consider the proposed removal of the language regarding "...in consultation with the Council...." This language was developed to ensure that proposed changes to the EM Manual would be reviewed by the Council prior to implementation. This language is similar to Federal regulations regarding review of the EM Program Guidelines under "EM program purpose" at 50 CFR 660.600(b):

"NMFS will develop EM Program Guidelines, which will document best practices and other information that NMFS will use to evaluate proposed service and vessel monitoring plans submitted by EM service providers and vessel owners under this subpart, and to evaluate the performance of EM service providers and vessels, in meeting the requirements of this subpart to achieve the purpose of the EM program. <u>NMFS will develop the EM Program Guidelines in consultation with the Council and publish notice of their availability in the Federal Register."</u>