



## New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116  
 Eric Reid, *Chair* | Thomas A. Nies, *Executive Director*

### MEMORANDUM

**DATE:** January 13, 2023  
**TO:** Groundfish Committee  
**FROM:** Groundfish Plan Development Team  
**SUBJECT:** Follow-up on possible Amendment 23 review metrics

The Groundfish Plan Development Team (PDT) met on October 3, 2022, via webinar to discuss recommendations from the Groundfish Advisory Panel, Groundfish Committee, and Council on possible Amendment 23 (A23) review metrics and indicators, and worked through correspondence.

The PDT offers the following feedback on which of these recommendations should be considered for possible metrics and indicators. Next steps will be for the PDT to fold in the additional recommendations to the base list of possible review metrics and indicators, and for the PDT to begin exploring and developing these metrics and indicators for the review. The Scientific and Statistical Committee (SSC) will also provide input on the possible review metrics and indicators.

#### *PDT feedback on GAP/GF CTE/Council recommendations for possible A23 review metrics*

The PDT discussed the recommendations received for additional possible metrics and indicators. Those highlighted in green are recommended by the PDT to be added to the list and explored further, while those highlighted in red are not recommended by the PDT, either because they are outside the scope or timeline of the review process or would not address the purpose of the review.

Groundfish Advisory Panel, June 2, 2022:

| Metric/Indicator  | Notes  |
|---|--|
| <p>1. A rerun of the assessments that had severe retrospective patterns once more data is available under 100% monitoring coverage to check if the retrospective issues remain.</p>             | <ul style="list-style-type: none"> <li>- This is a long-term issue, wouldn't see impacts until at least 10 years, certainly not in 2 years, refer to list in EIS on expected short term vs long term impacts of higher monitoring</li> <li>- There are many potential causes for retrospective bias and not all of them would result from lack of observer coverage.</li> <li>- Further, if there is bias that bias will remain in assessments since they rely on past data.</li> <li>- <b>Not recommended as a metric</b></li> </ul>  |
| <p>2. A comparison of observer companies and documentation of why trips selected were not observed (not enough observers, the observer being late or not showing up, etc.).</p>                 | <ul style="list-style-type: none"> <li>- Is individual provider performance necessary for the review process? Council should be concerned about sectors achieving their coverage, not about the observer providers</li> <li>- Provider performance currently shared with sector managers – selections vs. accepted trips, etc., would have to look at whether info on individual companies can be shared but total could be summarized</li> <li>- New process in PTNS for proportional selection by providers according to sector contracts should help</li> <li>- <b>Not recommended as a metric – though can look at overall trip selections and acceptance rates</b></li> </ul> |
| <p>3. Understanding of whether there are delays in getting additional data from higher coverage to the sector managers (potentially a suggestion for GARFO vs. the Council review process).</p> | <ul style="list-style-type: none"> <li>- If there are delays in getting data to sector managers to use for managing sector members catches, does this impact the overall function of the monitoring program?</li> <li>- Potentially having to use older data if delays</li> <li>- <b>Recommend as a metric to measure monitoring program effectiveness</b></li> </ul>  |
| <p>4. Analysis of the cost of monitoring before and after A23 broken down to what it costs to cover the trip, travel costs, training costs, etc.</p>  | <ul style="list-style-type: none"> <li>- Can update cost analysis - examine marginal cost changes (due to COVID, monitoring, etc.)</li> <li>- May be difficult to break out travel costs if included in loaded sea day rates</li> <li>- Training costs likely will be different short- and long-term depending on observer retention</li> </ul>  |

|  |  |
|--|--|
|  | <ul style="list-style-type: none"> <li>- Consider that these costs will be biased for EM as it's not a competitive market under the Congressional reimbursement program</li> <li>- <b>Recommend for metrics</b></li> </ul>   |
| 5. A cost-benefit analysis. This could look at the cost of monitoring a discarded pound of fish pre- and post-A23 by comparing the cost per trip, the overall cost to the fleet, fleet revenue, etc.   | <ul style="list-style-type: none"> <li>- Inappropriate given the purpose of A23 – improve catch accounting, should be cost of observing a pound of catch, not discards</li> <li>- Cost efficiency analysis, not a cost/benefit analysis</li> <li>- <b>Not recommended as a metric, but could modify to examine cost of observing a pound of catch</b></li> </ul>   |
| 6. Tracking the costs associated with the program overall (whether EM or human observer) compared to what is being discarded to understand the value of the program and cost of tracking discards.   | <ul style="list-style-type: none"> <li>- Inappropriate - value of program is catch accountability, not strictly discard estimates</li> <li>- Note that EM does not track non-allocated discards.</li> <li>- <b>Not recommended as a metric, but could modify to say track monitoring costs relative to observed catch</b></li> </ul>   |
| 7. Consider the expansion of the Do Not Deploy list during the COVID-19 pandemic and the impact on achieved coverage rates.  | <ul style="list-style-type: none"> <li>- Include DND (also known as Vessel of Concern (VOC)) list as part of reasons for achieved coverage, maybe a social indicator too</li> <li>- How has the number of vessels on the DND list changed pre- and post-A23, and relative to COVID?</li> <li>- For DND issues including COVID, not much can be done for enforcement – early development of process to track and prevent chronic COVID waiver vessels from going back on DND</li> <li>- Some sector managers are addressing this through their board (vessel can't go fishing until take an observer or use EM) but not all - affects equability across the fleet</li> <li>- Tracking COVID waiver boats, other broad categories for DND shared with sectors – can we look at distribution of waivers across vessels?</li> <li>- Overall DND list is a challenge for achieving coverage</li> <li>- <b>Recommend as a metric under reasons for realized vs. target coverage</b></li> </ul> |
| 8. Consider potential changes in how the fishery is operating this fishing year with the proposed significant cut in the GB cod ABC and what that means for where fishing occurs, costs, etc., as well as impacts from high fuel prices this year. | <ul style="list-style-type: none"> <li>- Not a metric but include in fishery conditions summary for context, consider during analyses.</li> <li>- This is saying be careful with doing a spatial analysis before and after A23, FY2022 will be a challenging year given quota change for GB</li> </ul>   |

|  |  |
|--|--|
|  | <p>cod as well as high fuel prices, in addition to change in coverage, etc.</p> <p>- The quota cut for GB cod from FY15-16 was similar, in percentage terms, to the cut from FY21-22. This may provide some helpful context in separating the spatial impacts of the quota decrease from changes in observer coverage.</p> <p>- <b>Something to consider when developing metrics</b></p> |
|--|--|

Groundfish Committee, June 14, 2022 and Council, June 27, 2022:

| Metric/Indicator  |  | Notes  |
|---|--|--|
| 1. Comparison of target coverage rates vs. realized coverage rates, including comparison between vessels using EM monitoring tools and human at-sea monitors      |  | <p>- Could look at percent trips, seadays, catch observed. Was coverage proportional to effort throughout the year.</p> <p>- <b>Recommend as a metric</b></p>  |
| 2. The number of trips where waivers for monitoring requirements are issued and the reason for the waiver   |  | <p>- Can get this from PTNS data</p> <p>- <b>Recommend as a metric – for comparing realized to target coverage</b></p>   |
| 3. Evidence of bias in catch reporting between monitored and un-monitored trips, including:   | a. Trip duration   | <p>- Consider trip duration and port</p> <p>- <b>Recommend #3 a-d as a metric – re-run observer bias analyses</b></p>  |
|   | b. Species composition and size composition of landed groundfish |  |
|   | c. Species composition and weight of discarded groundfish        | <p>- Can't do this for discards on unobserved trips</p>  |
|   | d. Ratio of landed to discarded fish by species                  | <p>- Re-run previous analysis on landings to effort ratios</p>   |
| 4. Overall industry and agency costs for meeting monitoring requirements, including a cost comparison between EM-monitored trips and human at-sea monitored trips |  | <p>- Update cost efficiency analysis and summarize agency costs relative to funding</p> <p>- Incorporate changes to monitoring tools in future that could result in changing costs, etc.</p> <p>- <b>Recommend as a metric</b></p> |
| 5. Efficacy of the Dockside Monitoring Program required in the Maximized Retention EM program, including purpose of the   |  | <p>- Evaluates this monitoring tool and its effectiveness in achieving monitoring program goals</p>  |

|   |   |
|---|---|
| <p>program (size composition and weights of sub-legal fish, validating dealer weights, hold inspection) cost of the program (including staff time to develop and support) and the use of information collected</p>  | <p>- Recommend as a metric</p>  |
| <p>6. Additional analysis that go to quantifying the magnitude of bias analyzed in A23. Specifically, pursue the numerous suggestions offered by the A23 SSC Sub-Panel Peer Review on ways the following two analysis could be further pursued to understand the magnitude of the observer bias question. (1) Methods to Predict Groundfish Catch in the presence of an observer (2) Methods to evaluate groundfish catch ratios A23 analysis</p> | <p>- Planning to re-run all the monitoring analyses, look at SSC peer review report suggestions<br/>         - Can look into magnitude of bias question but acknowledge it is challenging<br/>         - Note GMRI discard simulation work and GOM cod multiplier work to explore this issue<br/>         - Recommend considering as a metric</p>   |
| <p>7. True cost of monitoring at significantly higher targets by sea day (not days absent)</p>  | <p>a. including sea day rate, travel, training &amp; meal reimbursement, equipment, operations costs etc.<br/>         b. should be for each of the 3 industry paid programs, ASM, Audit EM &amp; MREM</p> <p>- Do different providers use different sea rate structures? Could be quite challenging to summarize individual contract rates<br/>         - Do providers have different definitions of sea day? Generally similar structure<br/>         - ASM contract work (in A23 appendices) looked at this, summarized by both sea day and days absent<br/>         - Would need to pick one definition of sea day<br/>         - Video review rate – MREM provider has a flat review rate, need standardized unit of time<br/>         - Recommend as a metric – costs by program, broken out into individual costs as possible, explore looking at by sea day</p> |
| <p>8. Stat Area/BSA Reporting (Palmer work) - comparing VTR/OBS/VMS data</p>  | <p>a. can help determine if getting better with higher levels of coverage<br/>         b. also can help to determine if differences are due to misreporting or due to differences in guidance</p> <p>- Issue worth exploring, important for non-unit stocks, important to see if changes with higher monitoring<br/>         - CAMS should make this easier<br/>         - Don't think rerunning the Palmer stat area reporting analysis would inform understanding of the effects of A23, but can explore other analyses<br/>         - Recommend considering as a metric</p>  |
| <p>9. Compare/Contrast discard estimates by monitoring program (ASM, Audit EM, MREM, NEFOP)</p>   | <p>- Both comparing two different boats fishing similarly with two different monitoring tools, and also same boat using two different monitoring tools</p>  |

|   |   |  |
|---|---|--|
|   |   | <ul style="list-style-type: none"> <li>- CAMS will make it easy to analyze for boat using two different monitoring tools – will have discard estimates by program</li> <li>- Comparing between different vessels requires controlling for fishing practices, etc.</li> <li>- Evaluate if these tools are equivalent in achieving goals of monitoring program</li> <li>- <b>Recommend as a metric</b></li> </ul>      |
| 10. Rerun PDT observer bias work since don't expect coming close to 100 % realized rate for trips with ASM requirements   | a. can simplify this work by tailoring analysis to those that showed significant differences originally | <ul style="list-style-type: none"> <li>- Planning to re-run PDT monitoring analyses</li> <li>- <b>Recommend as a metric</b></li> </ul>   |
| 11. Examine if those vessels that showed observer bias in the PDT work remaining in the fishery post 23   |   | <ul style="list-style-type: none"> <li>- Start with re-running the bias analyses and go from there</li> <li>- What if some vessels showed clear bias in one direction (shorter trips) and other vessels in the opposite direction (longer)?</li> <li>- <b>Recommend considering as a metric</b></li> </ul>   |
| 12. For trips that are exempt from ASM in SNE (west of 7130), could potentially look at observed discard estimates Pre/Post A23 since coverage rates will be dramatically different |   | <ul style="list-style-type: none"> <li>- This is related to the other review process of groundfish catch for 71 30 exemption vessels</li> <li>- Note that boats using EM west of 71 30 not exempt from coverage – could serve as a comparison for vessels that no longer have ASM coverage and only have NEFOP</li> <li>- Consider compliance with this exclusion</li> <li>- <b>Recommend as a metric</b></li> </ul> |
| 13. Recommendation of QA/QC on lease price data if examining leasing information  |   | <ul style="list-style-type: none"> <li>- Model tracks quota prices - does fit data well, accounting for variations within quarters</li> <li>- Recent work that show quota prices influenced most by proportion of catch of a stock observed, looked at through 2019</li> <li>- <b>Something to consider when developing metrics</b></li> </ul>   |