REPORT: Evaluation of Monitoring and Reporting Needs for Groundfish Sectors in New England

The New England Fishery Management Council (NEFMC) is currently considering proposals by seventeen groups of multispecies permit holders to opt out of the current Days-At-Sea effort control system of management to form harvesting cooperatives called "sectors". There is a widespread recognition by the fishing industry, environmental community, and fishery managers that the current monitoring and reporting system for the groundfish fishery is unlikely to be adequate for sector management. However, there is a lack of consensus on exactly what changes to the system are needed.

To facilitate the development of an effective and efficient monitoring system, the Gulf of Maine Research Institute (GMRI) commissioned Howard McElderry, principal of Archipelago Marine Research, and Bruce Turris, principal of Pacific Fisheries Management Inc., to assess monitoring and reporting needs for sector management in New England. McElderry and Turris have extensive experience designing, implement and operating monitoring and reporting systems for fisheries operating under output controls. The findings, opinions and recommendations of this report are those of McElderry and Turris. GMRI does not endorse any specific approach or standards for monitoring. GMRI commissioned this report solely to provide information to sector organizers, NEFMC, and the National Marine Fisheries Service.

SUMMARY

The report advises that the current monitoring and reporting system for the New England multispecies groundfish fishery is inadequate for the timely and accurate catch monitoring that will be necessary under sector management. Several options (or components) for monitoring and reporting are outlined, and a phased approach to implement these options is recommended. The report recommends implementing an enhanced dockside monitoring program and data collection system (Options 1 and 2) in the initial year of sector operation followed by a phased introduction of an at-sea monitoring program (Option 3) using a combination of human observers and electronic monitoring.

The report provides cost estimates for the monitoring and reporting system based on a potential scenario of 50% of New England's groundfish fishing vessels operating under a sector management program and being allocated 80% of the total catch. (Within Sectors, the report assumes a fleet size of 325 vessels, spending about 28,000 days at sea and making about 5,000 landings).

The proposed options or components of the monitoring and reporting system and estimated operating costs are are summarized on the back of this sheet.

For more information or a copy of the report visit our website at http://gmri.org/community/outreach or contact:

Cindy Smith
Northern Sector Coordinator
207-228-1653; csmith@gmri.org or

Elizabeth "Libby" Etrie
Southern Sector Coordinator
207-228-1684; eetrie@gmri.org

350 Commercial Street, Portland, ME 04101

Gulf of Maine Research Institute
Science. Education. Community.

Report Summary Continued:

Option 1: Prior to the start of a trip the vessel hails-out to a third-party, independent contractor and, upon completion of harvesting activities, the vessel hails-in to the contractor when and where they will be landing, if the product is being trucked, and where the fish is going (auction, processing plant). The vessel captain submits his/her completed vessel trip report (VTR) to the contractor and the buyer submits the completed Dealer Report (DR) to the contractor. The contractor reviews the VTR and DR data for completeness, enters the data into a data base program, and merges the data to determine species catch weights by area. An assumed discard rate mortality is applied and added to the landed weight mortality. The contractor then calculates total mortality by stock and deducts the mortality from the applicable vessel and Sector allocations. Within 48 hours of receiving all data associated with a vessel trip, status reports are provided to the Sector manager and NMFS. The Sector manager reviews the catches against the vessel's and Sector's allocations. NMFS uses the data to monitor Sector catch mortality against the Sector allocations

Estimated annual operating costs for Option 1 ranges from $380,000 to $684,000 to cover the Sector component of the fishery.

Option 2: Builds on Option 1 by adding independent monitoring of the offloading, sorting, and weighing of the landed catch. For some small ports, where fish is landed and trucked to a processor or auction, roving monitors could be used to witness unloading, and a dockside monitor would observe sorting and weighing at the destination.

Estimated annual operating costs for dockside monitoring (which would be in addition to Option 1 costs) are estimated to range varies from a low of $456,000 (lower range, 50% monitoring) to about $1 million (higher range with 100% monitoring).

Option 3: Builds on Option 2 by adding independent monitoring of the catch at sea, either through electronic monitoring (EM) and/or at-sea observers (ASOP). EM uses cameras, sensors, and GPS on vessels to record vessel and fishing location, activity, catch, and compliance with regulations. All gillnet and hook & line vessels and trawl vessels fishing in a single area under mandatory retention would be able to request EM in lieu of human observers. Trawl vessels fishing multiple areas and/or not subject to mandatory retention must request an at-sea observer. Observer costs are estimated to range from $700 - $1,000 per day while costs of EM are $150 - $200 per day (including annualized equipment costs).

The estimated annual cost of at-sea monitoring (which would be in addition to Option 1 and 2 costs) are estimated to range from $5 - $6 million for 50% coverage to $8 to $10 million for 100% coverage. There would also be a surcharge to dockside monitoring costs for EM based monitoring that would add from $148,000 to $414,000 depending on level of coverage.

The next step is to develop monitoring system specifications to enable more detailed cost analysis and eventually serve as a formal statement of work. Development of specifications will require considerable discussion among stakeholders and should include detailed information on critical issues that drive cost (e.g., fleet activity, coverage levels, landing ports, staffing levels, timelines, reporting requirements, etc.), project deliverables and timelines. Once a more detailed statement of work has been defined, a plan for program delivery will need to be developed including a service delivery model, monitoring program oversight, funding arrangements and the responsibilities of the parties involved.

The report recommends that some, but not all, monitoring and reporting costs should be borne by industry. The report acknowledges that it may be difficult for the industry to bear the full cost of new monitoring programs while the fishery is rebuilding. Some mix of federal, foundation, or other third party funding will be required to set-up and operationalize a monitoring system. However, experience has shown that monitoring programs are likely to be used more responsibly and efficiently by industry if it is sharing in the costs.

Acknowledgements: We would like to thank the many leaders in the groundfish fishery of New England that provided insight and perspective for this report. Members of the fishing industry and staff at the National Marine Fisheries Service were interviewed and NMFS' review of the Phase I and Phase II reports was extremely valuable. Funding for this report was made possible by the generous contributions of the Gordon and Betty Moore Foundation and the Alex C. Walker Foundation.