



New England Fishery Management Council
Approved in May 2004
Revised in September 2004
Revised in June 2005

Research Steering Committee Policy for Incorporation of Research Results into the NEFMC Management Process

Introduction

The Research Steering Committee (RSC), at the request of the New England Fishery Management Council's Executive Committee, developed a policy for the review and incorporation of new research results into the management arena. The Executive Committee's request was based on concerns that various cooperative research programs have funded a large number of projects that have relevance to management. Additionally, other types of external reports may also lack sufficient technical review prior to use in the management process. If results are to be used by managers in decision-making, the Executive Committee determined there should be some mechanism to evaluate the efficacy of the results and direct final reports to appropriate end users.

The Council reviewed and approved an initial draft of this document at its September 2003 meeting, but asked the RSC to provide more detail about the process as well as criteria for channeling projects to end users. They also asked the RSC to expand its discussions to include *all* new research projects that are to be used in making management decisions, not only those generated through cooperative research programs. This iteration of the policy includes those details.

In developing this process, it was the stated intent of the Research Steering Committee to be as constructive as possible in its review of research results and the preparation of advice to the Council as well as researchers. The RSC also proposes to implement the steps below as a pilot effort in order to address any unforeseen considerations or to further refine the process if necessary.

General

- ◆ The Council's Research Steering Committee will review final reports for projects funded through the National Marine Fisheries Service's Cooperative Research Partners Program (CRPP), and the Total Allowable Catch research set-aside provided for in the Atlantic Sea Scallop Fishery Management Plan, as well as other new research outside of the cooperative programs, that becomes available to the Council and its Plan Development Teams.
- ◆ The RSC will provide a review of final reports prior to the use of results in the Council decision-making process. The RSC will identify the applicability of results to management and the appropriate end user of the information in the report. As part of its review, the committee will comment on whether a project has had an adequate technical review, and if not, recommend that one be undertaken. Technical reviews from other institutions may be acceptable.

- ◆ Technical and contractual reviews of final project reports funded through the CRPI will remain the responsibility of NOAA Fisheries as required by its grants program. Both NOAA Fisheries and the RSC, however, will communicate the RSC protocols outlined below to potential applicants for CRPI funding and to other institutions that fund cooperative and other types of research. This will create an awareness of the Council's need for the RSC management review, as well as a technical review of project results.
- ◆ A potentially critical element in the management process, the RSC will ensure that an appropriate review of new research results is undertaken before those results and associated conclusions are used in a management action. This could involve several different pathways, depending on the nature of the project. All completed will be required to go through a sufficient technical review before results are used in the New England Council's management process.

Project Completed/ Final Report Submitted

It is expected that most projects are likely to fall within this category. In these cases, the RSC will review a package consisting of the project abstract (or possibly the full proposal) along with the final report, and either a summary of the technical reviews or the actual text of the review(s). Based on the committee's discussion and a review of these materials, the RSC will develop comments and/or recommendations on whether the technical review is adequate, project results are applicable to management, whether further work needs to be undertaken to validate results and the likely end user(s). Comments could include recommendations for immediate or future use by the Council and its committees, PDTs, SSC or SSAC, suggestions for further investigations, broader field-testing in the form of an experimental fishery, or other course of action.

The RSC also could advise that the information is not appropriate for use in a management context based on the summary of technical reviews, comments by RSC members, or other rationale related to the efficacy or appropriateness of the project. The committee could elect to forgo the development of comments if it did not feel they are warranted or because of time constraints.

If a project does not have a technical review, or the RSC determines the technical review is not sufficiently rigorous, the RSC will recommend that a technical review take place or channel the completed report to its SSC, SSAC or other technical group for the review. The RSC will consider projects that have received technical reviews completed by other groups.

A package (including the summary of technical reviews, the RSC comments and a final report) will be prepared by the Council staff and forwarded to the Council and its appropriate oversight committees for use in the management process. The Council and its oversight committees will coordinate any further use of project information. This would include, but is not limited to forwarding a report to its Advisory Panels, Plan Development Teams or other groups.

Example – Typical projects would be the University of New Hampshire's cod end mesh selectivity study in the Gulf of Maine multispecies trawl fishery or the F/V Kathleen A. Mirarchi's observations of the effects of trawl gear on soft bottom habitats.

SARC/Peer Review: Projects that fall within this category are generally long-term or unique and would be integrated into the databases used for management. This would include the results of long-term projects such as industry-based resource surveys, study fleet initiatives, the cod tagging program and possibly other projects.

Example – The Northeast Fisheries Science Center Science, the Massachusetts Division of Marine Fisheries, the School of Marine Science and Technology and Rhode Island Fish and Wildlife, along with fishermen throughout New England are engaged in a project to tag yellowtail flounder in an on-going collaboration to better understand yellowtail movements, mortality and aging. Data will augment Center assessments of this species.

Responsibilities of Principal Investigators

- ◆ To ensure the use of the research results for management purposes, PIs will be required to identify project objectives, expected impact on or use in the management process and the end users of their results. Typically this should be stated at the proposal stage, but minimally should be detailed in a final report.
- ◆ Recognizing that researchers have a proprietary interest in protecting data until publication, at some point yet to be established, all PIs will be asked to provide the raw data on which their research conclusions are based. If these data are intended to be used in a publication, data access should be provided following the publication of research papers. Agreements can be reached to ensure data will be used only in the development of a fishery management plan and not by Council staff or its PDT members for publication purposes.
- ◆ In all cases if research is to be used by the Council for management purposes, raw data must be accessible to the Council staff and its Plan Development Teams in a readily usable format and accompanied by the relevant analyses and results prior to use in the development of a management action.

Technical Review Criteria Approved by the NEFMC, September 2004

The following document was developed by the Council's Research Steering Committee concerning criteria for the technical review of cooperative and other research results that are to be considered in management decision-making. Based on discussion of the issue at the September 14-16, 2004 Council meeting, this list will append this document to its final policy to incorporate research results into fisheries management decision-making.

Levels of technical review that would be deemed sufficient for Council decision-making purposes:

- Publication in a peer-review journal
- Publication in a Federal/State Agency or academic technical report series in which papers are subject to internal peer review
- Review by a peer-review forum such as a SARC, TRAC, SEDAR (Southeast Data, Assessment and Review - SEFSC' stock assessment review process), SSC, SSAC, NRC, etc
- Expedited review by NMFS and/or other appropriately qualified scientists
- Review of the research paper by two or more independent experts, unaffiliated with the PIs (with proof that any review comments provided by the reviewers were subsequently addressed by the PIs). This might pertain to the Center reviews of final reports of

state/federal grants and contracts, or to reviews specifically solicited by the PIs themselves from independent scientists.

- Academic dissertations and theses (presuming that the research in these reports have been reviewed for technical sufficiency and rigor by faculty members).
- A peer-review forum (perhaps a workshop) developed specifically to review/vet draft research reports (this might be something that could be convened under the auspices of the Cooperative Partners Research Initiative or the Northeast Consortium).
- Review by scientists familiar with the research topic area (this is the PDT model in which PDT members assess the technical merits of unvetted research results). The PDT may also recommend an outside review by additional scientists.

Some approaches that would NOT qualify as sufficient to consider a research document as having had a valid technical review might include:

Oral presentation of the research results at a scientific meeting (AFS, ICES, etc).

Publication of an Abstract

Preparation/submission of a Working Paper/Research Document to a Meeting/Working Group at which peer review is not the main objective of the Group (e.g., ICES Working Papers; NAFO Research Documents, ICES ASC Documents; etc) or in which the review is likely to be perfunctory

Additional Comments

There are still grey areas concerning whether analyses generated at PDT and Monitoring Committee meetings or reviews undertaken by those groups receive adequate vetting. Pending experience with this process and further discussion, the committee may modify this document.

Management Review Checklist

The RSC policy concerning the committee's review of final reports for applicability to the management process states that it will develop comments and/or recommendations on whether a technical review is adequate, project results are applicable to management, whether further work needs to be undertaken to validate results and the likely end user(s). Comments could include recommendations for immediate or future use by the Council and its committees, PDTs, SSC or SSAC, suggestions for further investigations, broader field-testing in the form of an experimental fishery, or other course of action.

The RSC may advise that the information contained in a given final report is not appropriate for use in a management context based on the summary of technical reviews, comments by RSC members, or other rationale related to the efficacy or appropriateness of the project. The committee also could elect to forgo the development of comments if it does not feel they are warranted or because of time constraints.

If a project does not have a technical review, or the RSC determines the technical review is not sufficiently rigorous, the RSC will recommend that a technical review take place or channel the completed report to its SSC, SSAC or other technical group for the review. The RSC will consider projects that have received technical reviews completed by other groups and subsequently undertake its own review. The RSC review may include a presentation by the principal investigators.

Following the RSC review, a package (including the summary of technical reviews, the RSC comments and a final report) will be prepared by the Council staff and forwarded to the Council and its appropriate oversight committees for use in the management process. The Council and its oversight committees will coordinate any further use of project information. This would include, but is not limited to forwarding a report to its Advisory Panels, Plan Development Teams or other groups.

Suggestions for Specific Comments

1. Has there been a sufficient technical review of the project results and, if so, is that information available to the Research Steering Committee?
2. Did the project accomplish all of its stated goals and objectives?
3. Are project deliverables available and formatted for use by the Council and its technical committees?
4. Does the project address an immediate management need or contribute to a long-term strategy to rebuild and sustain stocks?
5. Does the project support past work and/or provide new information?
6. Does it point to a management action not in place now, or offer an innovative solution to a problem?
7. Did the project elucidate other information not specifically stated in the goals and objectives?
8. Is there a need for further work or follow-on research such as wider field-testing?
8. Who is the appropriate end-user and are there recommendations/caveats about how this information should be used?
9. Overall rating based on the above criteria: excellent, very good, good, fair, or poor.
11. Additional comments.