

Report on the 2016 National Marine Fisheries Service (NMFS) Fisheries Research Environmental Compliance Workshop

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1 SUMMARY

The National Environmental Compliance¹ (EnCom) workshop was held in Silver Spring, MD, from November 29 to December 1, 2016. In total, 38 participants attended, with representatives from the National Marine Fisheries Service (NMFS) Science Centers, Regional Offices, Office of Protected Resources (OPR), General Counsel, Office of Policy, Office of Sustainable Fisheries, National Environmental Policy Act Headquarters (NEPA HQ), Office of Science and Technology (ST), Office of Marine and Aviation Operations (OMAO), NOAA Research, and the National Ocean Service. The workshop, organized by ST, was facilitated by Brooke Carney from NOAA Research. (*See Appendix 7.1 for full list of participants*).

The purpose of the workshop was to define the key components necessary to bring NMFS fisheries and ecosystem research into compliance with environmental regulations. Workshop participants based their work on the agency's experience developing programmatic environmental assessment documents and obtaining incidental take permits and authorizations for protected resources.

On Day 1, participants reviewed pre-workshop survey results and identified solutions to shortcomings in the current process. On Day 2, participants heard from the six Science Centers (hereafter, Centers) on current and proposed approaches for complying with permitting requirements, including challenges and considerations for implementing training, data collection, reporting, and evaluating mitigation and monitoring protocols. Participants also heard from staff experts in NEPA, the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) on post-authorization requirements and adaptive management considerations. On Day 3, participants discussed ST's role in environmental compliance as well as best practices for continued and comprehensive coverage of NMFS fisheries and ecosystem research activities.

Throughout the workshop proceedings, all participants emphasized the need for a dedicated environmental compliance coordinator in each Center. This coordinator would serve as the designated point of contact for oversight of the entire range of environmental compliance actions, including permitting. The coordinator would work closely with ST's national environmental compliance coordinator, Regional Office counterparts, HQ regulatory programs, and other relevant offices within and external to NOAA.

Key workshop deliverables include:

¹ Environmental compliance here refers to fulfilling requirements pursuant to federal environmental statutes and other applicable laws and agreements as it relates to NMFS fisheries and ecosystem research activities. It does not deal with facility or employee health and safety issues.

- A summary workshop report;
- A guidance document on process improvements and lessons learned, which includes components of a compliance program that would ensure continued coverage of NMFS research activities applicable to other NOAA line offices;
- Recommendations, included below, for NMFS leadership to consider for operationalizing environmental compliance regionally.

2 BACKGROUND AND CONTEXT

NMFS conducts and funds a wide range of fisheries and ecosystem research activities to support management and conduct stock assessments. These activities support the NMFS [mission](#) and include research activities conducted on NOAA vessels, NOAA-funded charter vessels, and by NOAA grant partners. More specifically, the six Centers each conduct a range of fisheries and ecosystem research activities which, depending on the region, generate specific products such as regional fishery stock population data, ecosystem-level assessments, and other technical information as needed to meet the science mission. The science-based fishery management process is designed to prevent overfishing, rebuild fish stocks, and help strengthen the value of fisheries to the economy, local communities, and marine ecosystems, all while providing a long-term supply of seafood for the nation.

The Centers' research activities cover a broad geographic area that includes the Arctic Ocean, the Gulf of Alaska, the Bering and Chukchi Seas, the Pacific Rim, North Pacific, the Western Atlantic Ocean, the Caribbean and the Gulf of Mexico, and the Southern Ocean. These activities have the potential to cause environmental impacts incidental to their research objectives.

Occasionally, protected species (e.g. sea turtles, marine mammals, fish, and seabirds listed under the ESA and/or MMPA) are taken by entanglement or hooking during the deployment of research fishing gear. They may be accidentally struck by vessels or disturbed by use of ship-based active acoustic instrumentation or by vessels used in the conduct of scientific research. "Take" of protected species is prohibited under the ESA and/or the MMPA, though such take may be authorized for specific activities, such as fisheries and ecosystem research.

The full range of research activities and any associated authorization of incidental takes of protected species during fisheries and ecosystem research are federal actions that must comply with the National Environmental Policy Act (NEPA), the Marine Mammal Protection Act (MMPA), and the Endangered Species Act (ESA). The NMFS must develop and implement an appropriate and legally defensible NEPA process along with documents that will satisfy the regulations outlined by the President's Council on Environmental Quality (CEQ) in 40 CFR, parts 1500 – 1508 (hereafter referred to as the "CEQ regulations") and the NOAA NEPA

administrative order (NAO) 216-6A to address NMFS scientific research and authorization activities.

A cross-functional NMFS working group established in 2008 conducted the initial exercise to define the scope, purpose, and planning of the NMFS fisheries research environmental compliance undertaking. The ST took responsibility for managing environmental compliance for NMFS fisheries research in 2012.

After reviewing the scope of activities undertaken by the Centers, NMFS directed the Centers to each produce a Programmatic Environmental Assessment (PEA) to analyze the effects of their actions to comply with the NEPA and to apply for an MMPA Letter of Authorization (LOA) to obtain permits for the anticipated incidental take of marine mammals. Directed research on protected species is permitted through a separate pre-existing process and was not considered to be within the scope of this assessment.

The PEA provides the analysis and information needed for consultations and compliance for these activities with other statutes such as the ESA, National Marine Sanctuaries Act (NMSA), National Historic Preservation Act (NHPA), Executive Order 12114 (EO 12114), Migratory Bird Treaty Act (MBTA), Magnuson-Stevens Fishery Conservation and Management Act (MSRA), and the Coastal Zone Management Act (CZMA). The PEA also allows Centers to meet other obligations stipulated in cooperative agreements and co-management or tribal treaties. Additionally, some regions (Alaska Fisheries Science Center (AFSC), Pacific Islands Fisheries Science Center (PIFSC), Southwest Fisheries Science Center (SWFSC), Northeast Fisheries Science Center (NEFSC), and Northwest Fisheries Science Center (NWFSC)), also needed to recognize and make dedicated efforts to engage with relevant tribal groups and subsistence hunting organizations (AFSC only) and relevant Alaska native groups.

To date, six Centers have produced and released their draft PEAs to the public. NMFS OPR issued Letters of Authorization (LOA) under the MMPA for mortality and serious injury and for Level A and B takes of marine mammals to the SWFSC in 2015 and NEFSC in 2016. The incidental take of selected ESA-listed species by SWFSC and NEFSC Centers was authorized via incidental take statements (ITS) under the ESA from their respective Regional Offices. While all Centers are close to accomplishing project targets, some work remains to reach full compliance with the relevant statutes. Centers need to consult with relevant state or federal agencies, take the required actions stipulated by relevant authorizations, and obtain permits for proposed fisheries and ecosystem activities from the appropriate federal and state agencies.

The initial goal of the NMFS environmental compliance effort was solely focused on obtaining MMPA and ESA incidental take authorizations for NMFS fisheries and ecosystem research. Over time, project goals evolved as it became clear that a more complete approach was necessary to

adequately and legally address the full suite of environmental compliance issues. Stop-gap measures that were formerly pursued by the different regions addressed only symptomatic problems, and were not a defensible approach to ensure comprehensive compliance. Moreover, each Center's research activities are dynamic, complex and varied, and are unique to the particular protected species involved, which necessitates an individualistic (regional) approach rather than a rigid national approach.

Many of these distinctive regional characteristics, while apparent, could not be satisfactorily addressed without jeopardizing ongoing project success due to the initial establishment of firm directives, resource limitations, and complex or unclear legal considerations. However, these intrinsic shortcomings have to be addressed to sustain NMFS's foundational environmental compliance efforts. With this broader vision, an EnCom Workshop was conducted to evaluate past practices and recommend a more efficient and practical framework for NMFS and other NOAA line offices to successfully and capably meet their environmental compliance obligations now and into the future.

3 WORKSHOP GOAL

The purpose of the workshop was to provide an opportunity for key personnel from science and regulatory offices to collectively examine current environmental compliance efforts regarding protected species in NMFS' fisheries and ecosystem research and to produce recommendations for maintaining compliance for future operations. Ultimately, the intent was to recommend an effective and efficient model for environmental compliance in NMFS fisheries research that leveraged and enhanced existing regional frameworks. Three themes were addressed at the workshop: ***Lessons Learned***, ***Implementation***, and ***Future Compliance***. The agenda and a detailed description of workshop topics covered within each theme are available in Appendix 7.2 and 7.3, respectively.

4 LESSONS LEARNED AND RECOMMENDED SOLUTIONS

On the first day, participants reviewed pre-workshop survey responses and discussed the positives and negatives of the current NMFS fisheries research environmental compliance initiative. Some positives that emerged included regular team check-in calls, introductory kick-off workshops, knowledgeable and diligent ST consultants (AECOM, formerly URS Inc.), early engagement of the Regional Office staff, and the establishment of national coordination by ST. Further, thanks to dedicated efforts by the Regional Office, Center, and HQ science and management staff, NMFS successfully initiated a formal environmental compliance effort for the Centers. In the process, Centers have made substantial progress in ensuring that NMFS fisheries research functions directed and funded by the NMFS science enterprise fulfill all

requisite environmental statutory requirements in a transparent, consistent, and comprehensive manner. However, the lengthy experience of working on this initiative also highlighted key challenges and potential solutions.

Concerns about protected species regulatory requirements

- Discrepancy among the various regions regarding statutory requirements and information needed to satisfy such requirements.
- Unclear and changing requirements for document preparation to satisfy various statutes.

Concerns about project management and communication

- Inadequate and unspecialized staffing support at the Centers.
- Inadequate staffing support in some HQ and regional offices.
- Inadequate communication at multiple levels between and within HQ, Centers, and Regional Offices.
- Limited, inadequate or discrepant communications between protected resources staff in Regional Offices, HQ, and Centers.
- Unfamiliarity of Centers with the process as well as staff inadequately prepared to address the regulatory issues due to lack of previous experience and knowledge about relevant statutes.
- The national effort to reinvent the process sidestepping or ignoring longstanding regional practices.

Concerns about document preparation

- Difficulty in incorporating research conducted by state, industry, and academic partners in the PEA preparation.
- Research catch data submitted in formats that do not satisfy management requirements in different Regional Offices.
- Difficulty in obtaining PEA and supplementary documents that address specific analyses on fisheries' impacts or species or stock-specific information. This was the result of the broader focus of the PEA as compared to the more detailed analysis required for ESA, Essential Fish Habitat (EFH), and NMSA — an artifact of the initial scoping process and identification of purpose and need.
- Reliance on too many assumptions (or gross oversimplifications) used for the conclusions in the NEPA Finding of No Significant Impacts – FONSI document.

Concerns about NMFS leadership engagement

- Insufficient leadership engagement at multiple levels within NMFS was a concern widely shared by participants. Prioritization of the project did not translate into dedicated resource support, assignment of tasks to specialized and dedicated individuals, and regular engagement with staff to accomplish project goals.
- Lack of understanding of the scope and scale of the overall project and the complexity of statutory requirements.

Based on the concerns expressed, there were some lessons learned that resonated universally among the participants. These **four** lessons were considered to be necessary for overcoming the challenges and concerns listed above:

1) Use established regional models rather than orchestrating a new national model.

2) Appoint a dedicated environmental compliance coordinator at each Center to serve as a liaison between all stakeholders.

3) Recognize that environmental compliance implementation is not a stand-alone project but an ongoing program that must be comprehensive, well-resourced, and responsive to all relevant statutes, regulations and established policies.

4) Recognize that fisheries and ecosystem environmental compliance is central to the NMFS mission and integral to research operations.

4.1 REDEFINING ENVIRONMENTAL COMPLIANCE – BEYOND PHASE I

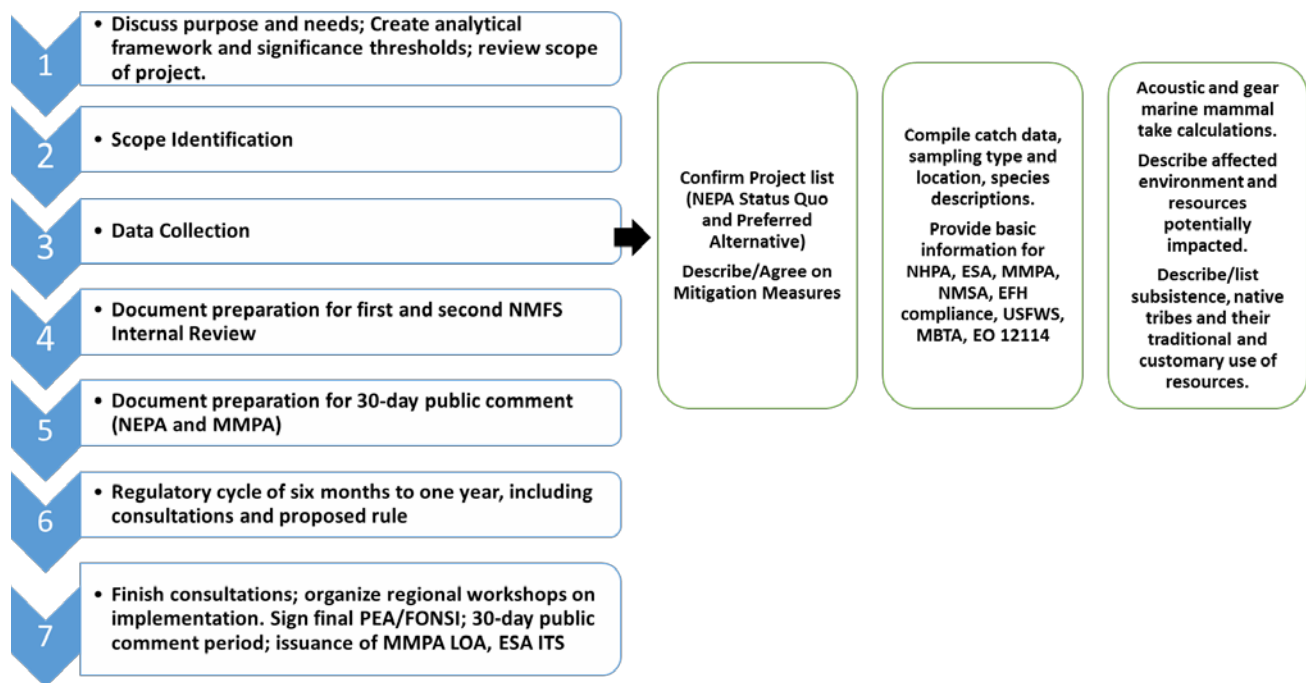


Figure 1 Steps for initiating, planning, and executing environmental compliance actions pursuant to requirements under multiple statutes, principally NEPA, MMPA, and ESA (Phase I) prior to issuance of permits or authorizations.

Participants discussed the current phases for the environmental compliance effort (*Figure 1*) and identified changes to specific steps if such an initiative were undertaken from the start with no prior foundational work in place. **Note:** Descriptions of individual steps will be detailed in the guidance document (*in prep*) and will not be discussed further.

The purpose of outlining individual steps was to deconstruct the entire project into manageable stages. This provided overall clarity and coordination by aiding in the communication of status and detailing the logical sequence of tasks to be completed from start to finish. A drawback of the previous version of this model was the omission of two key process steps (scoping and clarification of purpose and need) before conducting a kick-off workshop. Although elaborate scoping exercises were conducted in the initial project formulation stage, these are not reflected in *Figure 1*. The outlined steps also gave the incorrect impression that once a Center had completed steps 1 through 7, environmental compliance obligations effectively ended because of the characterization of environmental compliance as a “project.”

The model above should be considered as Phase I of initiating a comprehensive national environmental compliance program. Phase II begins with the transition from foundational

environmental compliance actions to operationalizing environmental compliance as part of the regular functioning of the research enterprise.

The participants recommended organizing a national workshop within a year of the kick-off workshops to enable information transfer between labs/programs seeking compliance and to allow agility in making changes to improve efficiency, thus avoiding delays in meeting milestones. The organization of follow-up and periodic workshops would be part of the implementation phase.

4.2 RECOMMENDED ORGANIZATIONAL STRUCTURE FOR NMFS ENVIRONMENTAL COMPLIANCE EFFORTS

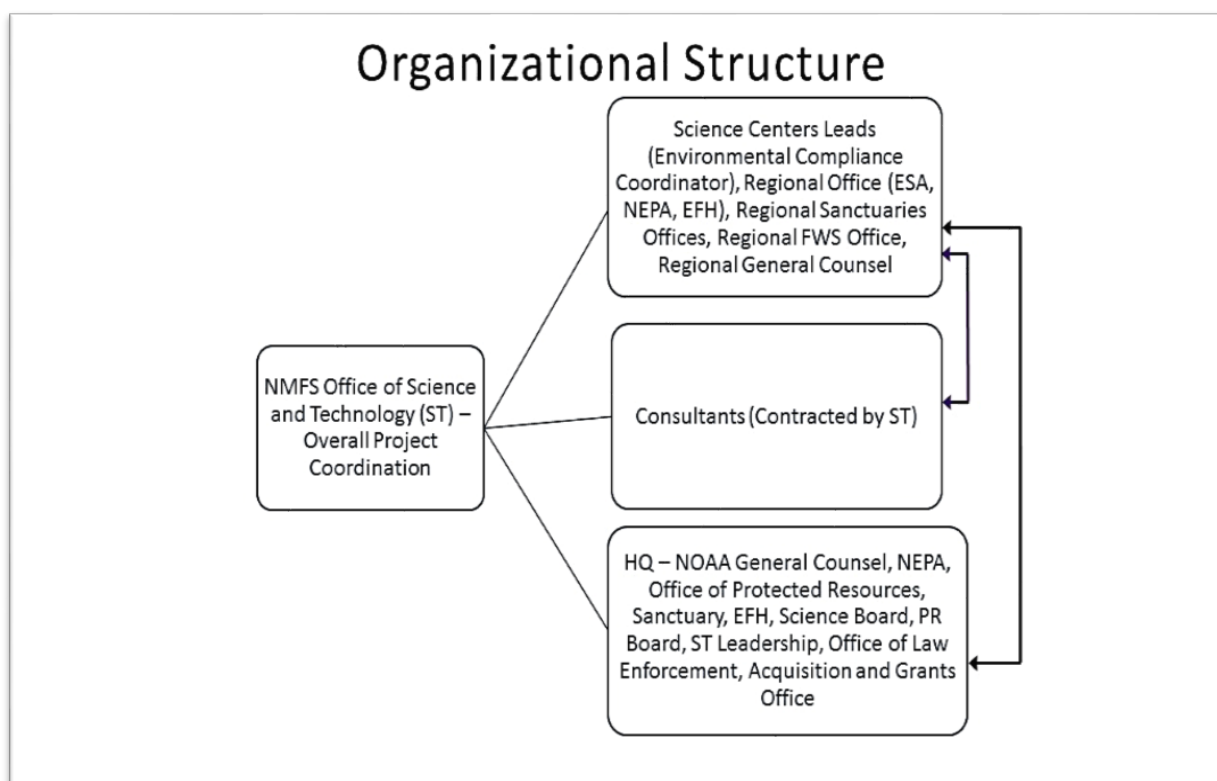


Figure 2 Recommended organizational structure for NMFS’s environmental compliance program based on participant feedback. The ST will provide national coordination and work closely with Center environmental compliance program officers/coordinators and relevant regional and HQ offices within NMFS and NOAA and in relevant outside federal agencies.

The participants discussed the current organizational structure for achieving environmental compliance and recommended changes, shown in Figure 2. A key shortcoming of the previous structure was the use of a single national model applicable to all Centers rather than a model that leveraged existing regional models of achieving compliance under NEPA. Further, the special data requirements of regionally-conducted statutory consultations (e.g., for Scientific

Research Permits (SRP), EFH, NMSA, and ESA), were not adequately addressed, requiring additional fine-scale and comprehensive analyses of impacts. These unanticipated needs represented an increased burden on individual Centers and delayed completion schedules.

The proposed new structure requires greater communication and coordination between Centers and Regional Offices with guidance provided by HQ regulatory programs as needed. A list of current roles and responsibilities is available in Appendix 7.4. The participants agreed that ST should continue to provide national coordination to reduce duplicative efforts and increase consistency in the application of regulatory guidelines and policies. Continued national coordination would ensure consistent methods in incidental take calculations and use of similar impact analysis frameworks for marine mammals and ESA-listed species. The participants noted that although the proposed structure was designed to enable the initiation of NMFS' comprehensive environmental compliance efforts, it could be adapted for use by other NOAA line offices.

4.3 PHASE II IMPLEMENTATION PHASE

The post-permit/authorization implementation phase does not imply repeating all steps or adhering to a particular sequence as projected in Phase I (*Figure 1*). Instead, depending on the nature of the project to be covered or evaluated for incidental take coverage, supplemental updates and analysis may be required to bolster existing environmental assessment documents (see *Figure 3* for reference).

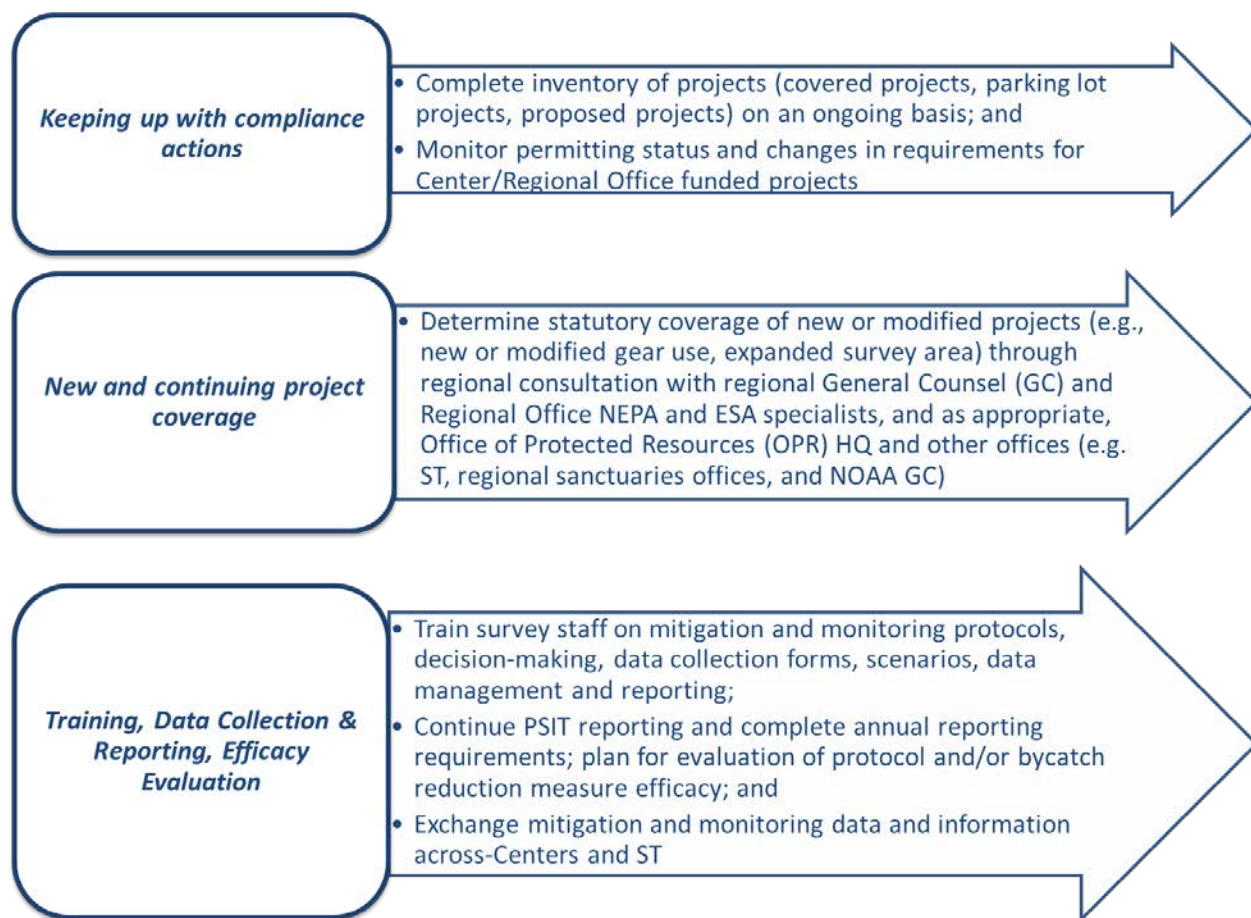


Figure 3 Post-permit and authorization Center actions to enable operationalizing an environmental compliance program within each Center. PSIT – Protected Species Incidental Take (PSIT) database. <https://www.st.nmfs.noaa.gov/finss/psit/psitMain.jsp>

4.4 RATIONALE FOR A CENTER-BASED ENVIRONMENTAL COMPLIANCE PROGRAM

One theme that repeatedly resonated throughout the workshop was the recognition that environmental compliance is a “*program*” not a “*project*.” The participants felt strongly that this distinction was important for the agency to acknowledge. Making environmental compliance a program represents an acceptance that environmental compliance is part of NOAA’s mission to provide stewardship of living marine resources and is integral to the NMFS fisheries and ecosystem research enterprise. Environmental compliance is not a *temporary project* that when concluded absolves us of continuing responsibilities. Once the programmatic nature of environmental compliance efforts is recognized, appropriate resources (labor and funding) need to be allocated consistently to maintain that compliance. Ultimately, a culture of compliance needs to prevail in the fisheries and ecosystem programs similar to what the protected resources divisions and programs have established over the years.

On Day 2, Center representatives each presented an overview of their current roles and responsibilities and their additional role as Project Leads on the environmental compliance project. It was clear that almost all science leads, with the exception of the PIFSC, had limited understanding of environmental statutory requirements, although they had the principal role of monitoring Center environmental compliance actions, including permitting. Even the Center representative in PIFSC did not have complete expertise in all statutory requirements. While some of the Center leads had more experience or familiarity with protected species issues or core fisheries stock assessment surveys and activities, they lacked comprehensive knowledge. Some Centers involved multiple staff with different expertise, which increased responsiveness to multiple data calls required for PEA preparation. However, given their established full-time responsibilities within the Center and enhanced demands of the environmental compliance project, it was often challenging for Center leads to obtain the necessary information from staff outside their own fisheries programs.

As a result of these realities, many data collection efforts lagged, forcing leadership to intervene to hasten information retrieval. Also, the Center leads frequently were made aware of new projects or activities well into document preparation or were apprised that data were incompletely provided. Delays were further compounded by the departure of field personnel on a seasonal basis, the complexity of including cooperative research partners or other state/international partners, and lower prioritization by Center personnel of environmental compliance tasks. The Center leads frequently had to request and justify resource and time commitment of staff for environmental compliance actions.

Centers lack a culture of compliance; therefore, considerable effort was expended in elevating environmental compliance awareness within any particular Center. It was apparent from Center staff feedback and workshop participants that regular communication and dedicated workshops are necessary to ensure staff members are aware of their obligations and the various monitoring/mitigation protocols they need to implement and evaluate.

Progress was faster when there was regular engagement and commitment from leadership and supervisors of the relevant fisheries research programs. All leads went above and beyond to address project challenges and be responsive to variable regulatory requirements. But it was apparent that the project would have progressed more quickly if there were dedicated and specialized personnel managing and coordinating Center environmental compliance functions who reported directly to the Center directorate.

4.5 RATIONALE FOR A CENTER-BASED ENVIRONMENTAL COMPLIANCE COORDINATOR

Appointing a dedicated environmental compliance professional reporting to the Center directorate would alleviate current problems and help support a sustainable and efficient

environmental compliance program. It is impossible to expect one individual to have complete familiarity or expertise in regulatory requirements and Center-run research programs and specific survey knowledge for both protected species and fisheries. However, individuals need to possess some basic qualifications and can receive on-the-job training to fill any knowledge gaps. The following section proposes a description of such a position.

Summary Position Description:

An environmental compliance coordinator would have a basic understanding of pertinent environmental laws and regulations. Though not an expert in the work of each Science Center research program, the candidate should be skilled in learning and understanding the complexity, uniqueness, and diversity of these research programs. The candidate should be organized, able to communicate complex issues, analyze data, complete tasks within deadlines, and draft reports. Significantly, the environmental compliance coordinator would be the central point of contact for all Center environmental compliance related to fisheries and ecosystem research. This would prevent confusion over whom to contact about permitting status and requirements. The functions of an environmental compliance coordinator are summarized below. The Center could also consider whether the coordinator would track all scientific research permits or only the items associated with fisheries and ecosystem environmental compliance requirements. The coordinator could be a contractor or a part/full-time federal employee.

Suggested Responsibilities:

1. Collaborate with Center principal investigators to identify new projects requiring NEPA analysis or permits.
2. Provide advice and guidance to Center leadership and staff regarding the level of NEPA analysis or documentation required for projects subject to NEPA. Work with Regional Office and headquarters offices to identify mandates, or the permits required for projects subject to federal, state, and local government and agency regulations.
3. Work closely with Regional Office personnel, HQ, and Center staff to produce knowledgeable and timely NEPA documents and permit applications.
4. Monitor new, ongoing, and proposed fieldwork and projects and engage in strategic planning of projects (preferably within the five-year NEPA time frame) based on feedback from Center and Regional Office staff.
5. Work cooperatively with NMFS, USFWS, tribal and subsistence hunting organizations (as applicable) and other resource agencies on ensuring compliance with NEPA and other federal environmental statutes, state, and local regulations, as well as fulfilling ESA and MMPA incidental take authorization monitoring and reporting requirements.

6. Maintain a relational database to effectively organize and track project compliance and permit status and to ensure permit reporting requirements are met annually.
7. Maintain up-to-date permits information for staff on the intranet.
8. Coordinate regular training and provide documents for staff participation within the Center and its partners on topics such as mitigation and monitoring, handling live/dead animals, biological sampling of incidentally caught protected species and Protected Species Incidental Take (PSIT) database reporting.
9. Set and follow shared best practices and common data collection guidelines in coordination with other Centers and ST.
10. Coordinate and communicate regularly with the NMFS national environmental compliance coordinator.

4.6 OPERATIONALIZING AN ENVIRONMENTAL COMPLIANCE PROGRAM: KEY ELEMENTS

Participants discussed at length the ideal elements for operationalizing an environmental compliance program for NMFS and made the following recommendations:

- I. **Institutionalize a culture of environmental compliance both agency and Center-wide, as well as within labs/programs.**
 - Engage, support, and communicate at all leadership levels about the mission-critical importance of environmental compliance to the NMFS research enterprise.
 - Appoint a dedicated and long-term compliance coordinator at each Center, who would report to senior leadership within each Center.
 - Encourage greater understanding in the Regional Offices and in other state partners about the Center's fisheries research activities and cooperative research, including discussion on data needs and formats.
 - Encourage communication between Centers and Regional Offices (i.e., Protected Resources, NEPA, environmental compliance efforts regarding protected species) to increase awareness of each other's activities and programmatic functions.
 - Emphasize consideration of compliance requirements in each Center's science planning efforts.
 - Undertake succession management to pass on institutional knowledge when Points of Contact (POCs) leave.
 - Consider commercial fishery regulations, industry, and other federal agency standards and encourage consistency if/when possible and applicable.
 - Apply regulatory policy consistently across regions.

II. **Sustain and support an environmental compliance program at each Center**

- Center staff should engage early and frequently with Regional and HQ offices and the compliance coordinator.
- Clearly delineate roles and responsibilities of staff involved in environmental compliance.
- Create and agree on data standards, accuracy, and stewardship.
- Document incidental takes and actions taken to avoid interactions with protected species and report on successes, failed efforts, and challenges of mitigation and monitoring protocols employed.
- Center staff should conduct post-operational debriefs to learn from and share experiences communicated through the Center and/or national environmental compliance coordinator.
- Systematically evaluate and review mitigation and monitoring protocols to test for efficacy to reduce or avoid interactions with protected species, as well as to test new or modified protocols and gear types. This would require adequate funding from HQ.
- Provide a simplified roadmap for what is needed when and by whom, including whom to contact.
- The national environmental compliance lead led by ST together with regional environmental compliance coordinators, science leads, and regulatory programs should evaluate and identify core data elements that relevant fisheries and ecosystem research cruises can collect to help judge the efficacy of mitigation measures.
- Both NOAA GC and Regional GC should be part of the discussions on scope and coverage of future projects under the PEA.
- Engage with the OMAO in cruise planning and permitting requirements and communicate the NMFS decision-making process and best practices in the event of an incidental take.
- Partners receiving NMFS funding must comply with reporting requirements as a condition of funding.
- Manage data collected regionally and nationally to satisfy a variety of permitting requirements and for evaluation of prescribed protocols.

4.7 CONTINUATION OF NATIONAL ENVIRONMENTAL COMPLIANCE COORDINATION

ST will continue to provide environmental compliance coordination at the national level and will:

- provide overall guidance and technical support for NMFS's compliance efforts;
- advocate for seamless integration of environmental compliance actions into NMFS fisheries and ecosystem research operations;
- communicate with and regularly update NMFS and NOAA leadership on the issues and challenges of complying with compliance actions;
- liaise regularly with regional environmental compliance coordinators and appropriate HQ and regional management and regulatory offices within and outside NMFS and NOAA to identify challenges and monitor compliance actions;
- advocate for sufficient resources to the Centers to help meet the needs of environmental compliance;
- recognize the successes of those who meet compliance goals;
- provide a national synthesis of regional data collected to NMFS leadership (e.g., annual summary of protected species incidental take records, efficacy reports on mitigation and monitoring protocols employed by the Centers);
- identify and support Center training needs;
- continuously enhance the Protected Species Incidental Take (PSIT) database to address Center and HQ data reporting requirements;
- problem-solve and identify solutions for accomplishing unique regional compliance requirements;
- work with Center scientists and relevant managers to experimentally evaluate and analyze the efficacy of standard operating mitigation and monitoring measures implemented by different Centers;
- ensure continuity of compliance actions at all Centers; and
- provide support and advice as needed on broader NOAA environmental compliance initiatives.

5 RECOMMENDATIONS FOR NMFS LEADERSHIP

Participants unanimously agreed that without sustained leadership interest, support, and commitment at the highest levels, operationalizing fisheries and ecosystem environmental compliance will be challenging. Any complacency post-permit or authorization issuance could increase the risk of non-compliance, increase legal vulnerability, and lead to unanticipated diversion of resources and labor. To ensure the longevity and success of NMFS programs, participants made several recommendations for NMFS leadership to consider and implement. These are highlighted below.

- 1) Recognize and communicate to staff that (1) understanding and mitigating the impacts of NMFS fisheries and ecosystem research activities on the affected environment and complying with various environmental statutes is part of routine research operations and is mission-critical, (2) compliance is an ongoing program with key milestones that need to be met.
- 2) Appoint a dedicated part or full-time environmental compliance coordinator who reports to the Center directorate.
- 3) Recognize that the pursuit of environmental compliance is a joint science and management effort. Therefore, Center leadership should regularly engage with the Regional Office leadership about environmental compliance actions and request guidance as needed on NEPA, ESA, EFH, MBTA, or NMSA matters pertinent to the Center's current and future research operations. Environmental compliance activities, including the MMPA permit/authorization process, should be a standing discussion item in key leadership briefings and meetings (e.g., Board of Directors Center-level meetings, Leadership Council, and the Science Board).
- 4) Ensure there is commitment and accountability from staff at all levels in making compliance actions core to the Center's and HQ mission and annual science planning priorities. This could also be achieved by including environmental compliance as part of staff performance plans.

6 ACTION ITEMS

1. Group/ST Lead – will develop a guidance document/tech memo that provides a model for other NOAA offices to initiate, plan, and execute environmental compliance actions. (Anticipated deadline Nov 2017)
2. ST will develop a centralized collaboration (e.g. Google) site for internal environmental compliance monitoring. (Anticipated deadline July 2017)
3. ST will organize quarterly calls for Centers to discuss data collection/standards as Centers get close to obtaining permits. (Initiated)
4. ST/Group will draft roles and responsibilities for an environmental compliance coordinator based on workshop discussions and existing performance plans. **(Completed.** Included in document)
5. ST in collaboration with Science Centers, Regional Offices, and HQ offices, will organize another national workshop to review if recommendations proposed during this workshop were implemented, and if not, what were some of the challenges to implementation, and to discuss potential solutions to sustain environmental compliance programs once all Centers have completed their permitting cycle. (Planned FY 2019)
6. ST will brief the Science Board on workshop recommendations. **(Completed** Feb 14, 2017)

7 APPENDICES

APPENDIX 7.1 LIST OF PARTICIPANTS

1. Kurt Fresh (Northwest Fisheries Science Center)
2. Melissa Cook (Southeast Fisheries Science Center)
3. Keith Mullin (Southeast Fisheries Science Center)
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5. Dan Ito (Alaska Fisheries Science Center)
6. Jeremy Rusin (Southwest Fisheries Science Center)
7. Krista Catelani (Southwest Fisheries Science Center)
8. Sarah Pike (Northeast Fisheries Science Center)
9. Tim Cardiasmenos (Greater Atlantic Regional Office)
10. Jennifer Anderson (Greater Atlantic Regional Office)
11. William Barnhill (Greater Atlantic Regional Office)
12. Teresa Mongillo (West Coast Regional Office)
13. Noah Silverman (Southeast Regional Office)
14. Gretchen Harrington (Alaska Regional Office)
15. Marilyn Luipold (Pacific Islands Regional Office)
16. Kris Petersen (Office of Protected Resources)
17. Benjamin Laws (Office of Protected Resources)
18. Jaclyn Daly (Office of Protected Resources)
19. Kristy Long (Office of Protected Resources)
20. Jason Forman (NOAA General Counsel HQ)
21. Katherine Renshaw (NOAA General Counsel HQ)
22. Steve Leathery (NEPA HQ)
23. Steve Davis (Invited Participant, formerly Alaska Regional Office)
24. Guy Fleischer (Invited Participant, formerly Alaska Fisheries Science Center)
25. Rich Kleinleder (AECOM, Office of Science and Technology Consultant)
26. Mike Payne (ECO49, Office of Science and Technology Consultant)
27. Anne Southam (ECO49, Office of Science and Technology Consultant)
28. Candace Nachman (NMFS Office of Policy)
29. Tammy Adams (NOAA Research)
30. Kate Spidaliери (National Ocean Service, Office of National Marine Sanctuaries)
31. Janine Harris (NMFS, Office of Sustainable Fisheries)
32. Brittany Anderson (Office of Marine Aviation and Operations)
33. Stephen K. Brown (Office of Science and Technology)
34. Jason Gedamke (Office of Science and Technology)
35. Jeanette Davis (Office of Science and Technology, Note taker)

36. Laura Ferguson (Office of Science and Technology, Note taker)
37. Mridula Srinivasan (Office of Science and Technology, Workshop Lead)
38. Brooke Carney (NOAA Research, Facilitator)

APPENDIX 7.2 AGENDA

Day One: Tuesday, Nov 29, 2016

Anticipated outcome: The group provides collaborative input on the ideal permitting process for the future.

9–10 am Opening session

- Welcome, Background
- Workshop Purpose and Anticipated Outcomes
- Anticipated outcome: Organizers provide context and background for three-day workshop

10–10:30 am Break

10:30–12 pm Lessons Learned: what worked, what didn't, what can be done differently

- Presentation: Results of the pre-workshop survey
- Discussion: what worked, challenges, solutions
- Anticipated outcome: Participants share feedback on process

12--1:30 pm Lunch

1:30--3:30 pm Lessons Learned: Creating the Ideal Process

- Background and context of process
- Discussion: What would a successful organizational structure for environmental compliance look like?
- Anticipated outcome: Group identifies key elements and process steps in achieving compliance

3:30--4 pm Break

4–5 pm Summary of Lessons Learned, develop recommended outcomes

5 pm End of Day One

Day Two: Wednesday, November 30, 2016

Anticipated outcome: Group makes suggestions, discusses best practices for implementation of compliance requirements.

9–10:30 am Implementation Issues: Center Approaches, Challenges, and Solutions

- Six presentations from each of the Science Centers, 10 min ppt with 5 min Q and A
 - Coordination
 - Monitoring and Evaluating Mitigation Protocols from Surveys
 - Monitoring and Reporting

10:30–11 am Break

11–12 pm Implementation Issues: Center Approaches, Challenges, and Solutions (cont.)

- Discussion: addressing priority implementation components

12--1:30 pm Lunch

1:30–2 pm Implementation Issues: Center Approaches, Challenges, and Solutions (cont.)

- Discussion continues

2:00–3:00 Implementation: Management Perspectives

- Presentations from Managers: Guidance on implementation, 10 min each
- Discussion: implementation guidance

3–3:30 pm Break

3:30–4 pm Office of Science and Technology’s role in implementation process

- Discussion: national role of Office of Science and Technology in national coordination, supporting experimental testing of protocol effectiveness, preparing synthesis reports, reporting to leadership

4–5:00 pm Summary recommendations

5 pm End of Day 2

Day Three: Thursday, December 1, 2016

Anticipated outcome: Discussion, recommendations for leadership on the future of fisheries research compliance.

9–9:30 am Recap of conclusions from days one and two

- Presentation, discussion

9:30–10:30 am Maintaining Compliance

- Discussion: challenges, solutions

10:30–11 am Break

11 am–12 pm Maintaining Compliance (cont.)

- Discussion: What have we missed in round one that needs to be addressed in future efforts?

12–1:30 pm Lunch

1:30–4:00 Maintaining Compliance (Cont.)

- Discussion: Identifying actionable recommendations for NMFS/NOAA leadership

4–5 pm Wrap Up and Summary

5 pm End of Workshop

APPENDIX 7.3 WORKSHOP GOALS AND FOCUS AREAS

Workshop Goals: The purpose of the workshop is to provide an opportunity for science and regulatory offices to come together to examine current NMFS fisheries research environmental compliance efforts and produce recommendations for maintaining environmental compliance for future fisheries research operations.

The workshop will focus on three main themes:

1. Lessons Learned
2. Implementation
3. Future Compliance

Lessons Learned:

Pre-workshop survey results:

During this session workshop, participants will share perspectives about the existing process and discuss the positives, negatives, and recommend areas for improvement. Challenges and approaches for other statutory consultations will also be discussed. 'Other' refers to Sanctuary, EFH, NHPA, Subsistence, permits for working in state waters, CZMA, USFWS, and so on.

Participants will suggest a recommended organization structure and process for compliance actions that would be useful for future NMFS and other Line Office environmental research activities.

Implementation:

During this session, Science Centers participants will discuss both challenges and solutions for implementing mitigation, monitoring, and reporting requirements applicable to all current and future survey operations.

- Each Center will discuss their proposed approach, including training and coordinator role/s (if identified) to ensure best practices for cruise operations are transmitted throughout the Center and with relevant offices, e.g. regional and HQ sanctuaries offices, NEPA, EFH, ESA, OPR, ST, OMAO.
- Center representatives will also share their plans for complying with permit requirements and evaluating the effectiveness of protocols.
- Managers will provide their perspectives and guidance on post-permit requirements including reporting from both MMPA and ESA perspectives.
- Additional issues, such as resource constraints, documenting non-lethal takes and exceedance thresholds, data issues (consistent data collection, forms, databases, and data management), animal handling protocols & retention of carcass, leadership support and priorities, cross-Center coordination, consistency in regional and HQ regulatory guidance, and staff investments will also be discussed.
- Participants will also discuss ST's future role in implementing and coordinating national compliance efforts, preparing synthesis documents, reporting to leadership, and providing support for experimentally testing the effectiveness of mitigation and monitoring protocols.

Future Compliance:

This session will focus on the path forward once the necessary permits/authorizations are obtained. Operationalizing environmental compliance as a normal business practice requires dedicated staff time, resources, and regional and national coordination.

Participants will discuss the problems and recommendations for maintaining compliance in a streamlined, efficient, and consistent manner. Some potential topics for discussion can include:

- staffing and resource requirements, process changes
- recommendations for leadership,
- training and data management & analysis, and
- establishing a system for continued compliance and coverage for 'parking lot' surveys and future research operations.

APPENDIX 7.4 CURRENT ROLES AND RESPONSIBILITIES

- **ST** provides overall process and project guidance, coordinates with six Centers and consultants, tracks project progress, supervises consultant performance, oversees contracts, liaises with leadership and pertinent regulatory offices within and outside NMFS, provides guidance on data collection, and administers Incidental Take database and upgrades, and acoustic and gear-take estimation technical support.
- **ST Consultants** prepare NEPA and MMPA documents with supplementary analysis/information for consultation purposes, prepare final EA and FONSI documents, and communicate/coordinate with Centers, ST, and relevant offices.
- **OPR** provides guidance for preparation of IHA/LOA application, reviews & approves application, publishes proposed/final rules, issues potential LOA.
- **NEPA HQ** approves content and scope of EA including alternatives, clears final EA and FONSI, and provides overall NEPA Oversight.
- **NOAA General Counsel HQ** provides guidance on projects/activities in scope including alternatives structure, provides legal advice as necessary, reviews and clears final EA and LOA application, liaises with NOAA General Counsel.
- **Centers (Fisheries Research Divisions)** collects and compiles information for consultants to include in EA and LOA application documents, prepares supplementary analysis and conducts consultations to satisfy various other statutory requirements and regional office requirements, agrees/approves mitigation and monitoring methods and protocols, conducts training of staff, approves data collection and animal handling techniques, and reports all incidental takes to database.
- **Regional Office** reviews documents, provides reference material and guidance on permitted/non-permitted activities, and provides requirements for ESA, EFH, and NMSA compliance, and conducts consultations (e.g., ESA and EFH).

