



Economics and Human Dimensions Science Program Review

Alaska Fisheries Science Center

Summary of Comments and Response to Economics and Human Dimensions
Science Program Recommendations

December 4, 2017

Introduction

On July 17-20th, 2017, the Alaska Fisheries Science Center (AFSC) hosted a panel of experts to conduct a programmatic review of its Economic and Human Dimensions Science Program related to conducting research on the impacts of management actions and providing science advice that informs policies to maximize societal benefits from ocean and coastal ecosystems.

This review was the fifth in a series of annual reviews of AFSC science, directed at different topics each year over a five-year cycle and designed to maximize the transparency and effectiveness of major science programs located at NOAA Fisheries' six Science Centers as well as those located in, or coordinated through, NOAA Fisheries' Office of Science and Technology.

For the 2017 review, an independent panel evaluated the current scientific program of the AFSC that provides social and economic information essential to the management, protection and restoration of ocean and coastal ecosystems, and ensures sustainable benefits to the Nation. The following themes were covered as required by the [Terms of Reference](#) agreed upon by the NOAA Fisheries Science Board: 1) Management Context and Strategic Planning; 2) Human Dimensions; 3) Commercial Fisheries; 4) Recreational Fisheries; 5) Ecosystem Research; 6) Communication and Peer Review; and 7) Other.

The panelists are experts in the relevant topic areas and do not have an association with the AFSC. They were provided background materials in the form of briefing documents, organized by theme, as well as more in-depth information including North Pacific Fishery Management Council (Council) documents, the Economic Status Reports from the Stock Assessment and Fishery Evaluations (SAFE), and NOAA Fisheries policy and guidance documents. The panelists were given presentations from AFSC staff demonstrating the breadth and specific focal areas of AFSC's economic and human dimensions science programs. During the review panelists were also provided with the opportunity to discuss the AFSC's economic and human dimensions science programs with AFSC management, and staff from the Council, Alaska Regional Office (AKRO) and other research programs within the AFSC.

More information regarding the review of AFSC's Economics and Human Dimensions Science Programs may be found at: http://www.afsc.noaa.gov/program_reviews/2017/default.htm.

The results from this year's review, along with those conducted at each of the other five fisheries Science Centers and the NOAA Fisheries Office of Science and Technology, will be used to prepare a national summary to highlight best practices and to inform decisions on opportunities for improving science programs across NOAA Fisheries. The full suite of these reports will be found at: <http://www.st.nmfs.noaa.gov/science-program-review/>.

Acknowledgements

We would like to express sincere gratitude to the review panelists who provided excellent comments and devoted a significant amount of time for this review. Their valuable feedback on how our economic and human dimensions program is performing relative to our stated goals and objectives will help us improve and serve our constituents better. The AFSC also greatly appreciates the time and thought that participating stakeholders put into this review; their questions and comments sparked many conversations and their perspectives were invaluable particularly when addressing the issues of priority setting and overall objectives of this research.

The panelists for this review were:

- Prof. Ralph Townsend (Chair) - University of Alaska, Anchorage
- Prof. Vic Adamowicz - University of Alberta
- Dr. Ben Muse - NOAA Fisheries Alaska Regional Office (Retired)
- Dr. Patricia M. Clay - NOAA Fisheries Northeast Fisheries Science Center
- Dr. Bonnie Ponwith - NOAA Fisheries Southeast Fisheries Science Center

Response to Recommendations and Other Observations

Overall, the panelists provided positive comments on the AFSC's Economic and Human Dimensions Program, including its scope and technical expertise in the field. The Chair's summary and individual panel member reports provide reinforcement and validation of the AFSC's commitment to maintaining economic and human dimensions research, despite a challenging budget environment. The results of this review will encourage and motivate staff and AFSC leadership to continue to pursue excellence.

Here, we provide our initial response to specific comments, observations, and recommendations in the Chair's summary report, which were organized around the six general themes below. A number of additional issues were included within the individual reports, and although these are not individually addressed here, they will be taken into consideration as we respond to the larger issues.

1. Strong positive assessment of technical competence.
2. Overall scope of research appropriate for mission.
3. Need for strategic planning for research.
4. Recognition of tension in relationship of research to management agenda.
5. Data issues to consider as research agenda moves ahead.
6. Systemic issues in conduct of social science.

Response to specific comments and recommendations from the Chair's Summary Report

Comment 1: Strong positive assessment of technical competence.

Response 1: The AFSC appreciates this statement and works hard to maintain a high level of scientific expertise in the social sciences.

Comment 2: Scope of research broadly appropriate in terms of its relation to the NOAA mission.

Response 2: As the review demonstrated and panelists commented, the scope of social science research at the AFSC is very broad due to the variety of stewardship responsibilities of NOAA. This also leads to situations for which we have more research areas than staff time to successfully accomplish and requires prioritization of research projects. Our approach to address that issue will be discussed in our response to themes 3 and 4 below, specifically Response 4.3.

Comment 3.1: Address areas that are uniquely Alaska/Arctic issues - rural food security, the role of traditional and local knowledge in the AFSC research agenda, and the impact of Arctic climate change on marine-related activities in communities along the Bering Sea and Arctic Ocean.

Response 3.1:

AFSC researchers have been involved in the Bering Sea Project (BSIERP) since 2008 and have initiated the Alaska Climate Integrated Modeling (ACLIM) Project along with other Alaska climate-related initiatives. We recognize the many dimensions through which people interact with the environment, and that effective adaptation will require a better understanding of how all stakeholders interact with different components of the changing ecosystem.

The AFSC is interested in expanding research into various Arctic social science research arenas. The panelists specifically listed the need for research in rural food security, the role [incorporation] of local and traditional knowledge (LTK) in the AFSC research agenda, and the impact of Arctic climate change on marine-related activities in communities along the Bering Sea and Arctic Ocean. The AFSC envisions research on subsistence resources as integral to rural food security; therefore, see Response 5.3b below.

The AFSC appreciates the need to work towards effectively incorporating traditional and local knowledge into our research process. This is an area that AFSC researchers are actively pursuing, and one which overlaps with subsistence resource practices and rural food security research efforts that are summarized under Comment 5.3b below. As part of this effort, AFSC researchers are initiating collaborative partnerships with social scientists from universities, NOAA Sea Grant, and other state and federal agencies and entities, who are already working in this arena in Alaska.

We recently hired a new social scientist who will put us in a better position to expand our socio-cultural research both within the existing research frameworks and in new research trajectories (see Response 3.2) such as non-extractive use of marine resources under conditions of environmental change (see Response 5.3a, b and c).

Comment 3.2: Identify steps to insure strong integration of socio-cultural staff into the Economic and Social Science Research Program (ESSRP) and the broader AFSC science program.

Response 3.2: The AFSC is dedicated to a strong and meaningful integration of socio-cultural and economic staff and research. Collaborative work is encouraged and systematically supported through a variety of ways including regular full staff meetings, shared correspondence, joint responsibility to provide project updates in the Economic SAFE report, coordination by the ESSRP Program Manager, and formal and informal working group events. The AFSC socio-cultural working group just initiated a monthly meeting to discuss issues and possible sensitivities specific to cultural research in small and Alaska Native communities. One central topic discussed at the meeting was how to improve and develop AFSC-wide projects. We expect these meetings to provide a forum to engage across disciplines and share AFSC staff expertise. The first meeting resulted in a request for a shared document identifying the lead contact for individual research projects, as well as a platform to exchanging possible funding opportunities. This effort is ongoing.

In addition, we will examine ways to combine the methods used in socio-cultural research with those used in economic research and the research in other groups at the AFSC. For example, we continue to explore ways to develop an integrated framework that enables the economic effects/impacts to be translated into changes in well-being for the fishing-dependent communities and people, or alternatively, how changes in economic and social conditions can result in changes in behavior of humans in the marine environment.

Comment 3.3: Apply natural capital conceptualization to explore how management decisions determine the long term value of marine resources.

Response 3.3: The natural capital model is closely related to use and non-use valuation of natural resources. AFSC staff routinely estimate economic values of commercial fishery resources at different stages of production but these values represent only part of the final value of fish consumption. To this end, the AFSC also uses computable general equilibrium (CGE) models to conduct economic analysis that represents all final values and stages of commercial fish production. Incorporating recreational fishing sectors into CGE models, and linking CGE models to bioeconomic models, are ongoing research activities within AFSC. An optimal economic growth model, a type of dynamic CGE model, is under development to assess economic value of commercial fishery resources under different scenarios. Moreover there is interest in exploring methods to incorporate non-use values (e.g., “existence value”) into CGE models.

In addition, ESSRP staff currently have a project that will apply the natural capital model to Alaska fisheries (following Fenichel and Abbott 2014, and Yun et al. 2017). This will provide both an improved dataset with which to better understand this modeling approach and the long term value of our natural resources, as well as an additional model to consider in the ACLIM modeling suite.

Comment 3.4: Research prioritization should include research coordination with other Science Centers and other potential research partners in academic institutions and within Alaska state government.

Response 3.4: The AFSC regularly interacts with researchers at other NOAA Fisheries’ Science Centers through our various internal working groups and joint projects, but we agree that more could be done to coordinate with external partners.

We are also modifying the process for submissions in response Requests for Proposal to be first reviewed by the Council’s Social Science Planning Team (SSPT) during their annual meeting in May to assess the ways in which our research can be made more relevant to our management partners. This will also provide additional time and transparency to enable additional coordination with our academic partners as

well as within members of the Alaska state government. Since the review, we have also initiated conversations with members of the Alaska Department of Labor and the Alaska Department of Fish and Game's (ADF&G) Division of Subsistence to better coordinate our research efforts and improve the information available about the Alaska fisheries-related labor markets and subsistence fishing activities.

Comment 4.1: Management partners, including Alaska Regional Office (AKRO) and North Pacific Fishery Management Council (NPFMC) staff, clearly communicated that they would like ESSRP research to feed more directly into management process. Those comments indicated that SAFE reports are a key reference document for the management process, but that other ESSRP research is not seen as connected to the management process. There was an acknowledgement that ESSRP staff have made recent efforts to improve communication between the ESSRP and those directly involved in management.

Response 4.1: We recognize that this has been an ongoing issue and are committed to improving our communication with our management partners to better translate science into management. In the recent past, this has taken several forms including: revisions to our website to make information available to the public and our management partners in a timely manner (particularly in relation to our data collections, where anyone can sign up for email updates when data collections are modified or initiated); developing regional economic analysis software for Alaska fisheries (still under development) which will be used by AKRO and Council staff to calculate the economic impacts of fishery management actions which can directly feed into the management process in a timely manner; arranging for ESSRP members to make presentations and have meetings with AKRO staff in Juneau; and providing planned ESSRP proposals to the Office of Science and Technology to our management partners (albeit often with short notice/turnaround).

We plan on continuing and improving these efforts in the future in at least three ways. First, we will work with the AFSC Communications Program to create additional outreach materials [brochures, mapping and data visualization tools on the web (see Response 4.5)] to better inform the public and our management partners about the research underway at the AFSC and provide novel tools to understand Alaska fisheries and fishing communities. Second, we will participate in the recently approved SSPT, which will be a forum to, "...improve the quality and application of social science data that informs management decision-making and program evaluation" ([SSPT Proposed Purpose and Organization Statement](#), NPFMC, 2017). We will also have the SSPT review and comment on ESSRP proposals to the NMFS S/T RFP to help provide guidance on the proposals that are most informative to management and find ways to make other proposals more relevant to management needs. Third, we will provide our management partners with an update of recently funded S/T RFP projects as well as share our Accepted Publication Report that is currently submitted to AFSC leadership which documents the publication outlet, significance of scientific conclusions for management, policy, or to the broader scientific community, and an assessment of the degree of controversy associated with the publication.

Comment 4.2: There is an inherent tension in the allocation of research effort to immediate management issues versus longer run issues in fisheries management and in non-fisheries marine resource use. The answer is not to devote all ESSRP effort to immediate fisheries management issues, as these other areas are important.

Response 4.2: The AFSC is striving to balance research efforts between short-term and ongoing needs, and strategic planning for incorporating longer-term research issues such as ecosystem-based fisheries management, climate change investigations, and ocean acidification studies into our portfolio. In particular, AFSC is developing analytical methods and models, such as bioeconomic models and computable general equilibrium models, which can be used to address both short-term and long-term

issues of concern for fisheries management. See Response 4.3 for additional details for how we plan to address research prioritization.

Comment 4.3: Develop a conscious strategy for balancing competing research demands. Develop a system of prioritizing research to manage the inherent tension (also mentioned in Theme #3).

Response 4.3: This was a common theme of many of the Panelists. We have made efforts to align our individual staff member performance plans to our activity plans, which are guided by the AFSC's annual guidance memo priorities for AFSC research. However, those priorities are not necessarily specific enough to address ways to prioritize different areas of social science research noted by the review panel. We plan on addressing this issue in two basic ways. First, we plan on completing FY18 proposals to the Office of Science and Technology's Request for Proposal's (S/T's RFP), scheduled to be due in late June 2018, to be ready for review and comment by the Council's SSPT during its May meeting. We hope this will also assist in our communication with our management partners (some of whom are also members of the SSPT) about the research that we are planning on conducting and why, and give them an opportunity to provide feedback as to the importance of proposals or changes that would be more useful for their analyses. Second, these comments will be incorporated into an ESSRP scoring rubric to determine the prioritization of ESSRP proposals to S/T that will be developed in June 2018. The rubric will score proposals based on several criteria, such as their potential application to management, AFSC and Council research priorities, SSPT and management partner comments, scientific innovation, the extent to which it addresses current data or research gaps (such as those mentioned in Comment 3.1), quality and quantity of deliverables (including issue briefs), and staff availability, interest, and expertise.

Comment 4.4: There may be better ways to structure communication of research for the management process. The SAFE documents seem to have become a compendium of data (albeit, data with interpretation) and as such have become very large.

Response 4.4: Because SAFE documents become official Council documents they have become a primary vehicle for delivering information related to economic data collection, catch share programs, and fishery-related community information. There is value in having an official annual compendium of this type of economic information, as is commonly stated by several stakeholder groups who utilize the SAFE documents. At some point, the addition of new data elements becomes redundant or superfluous and this year the Economic Groundfish SAFE has trimmed and restructured the economic data tables to provide a more concise presentation of economic information. The Economic SAFEs should not be the sole mechanism through which economic information and research is delivered and communicated to the management process, and we are working on several avenues to improve the mechanism and appropriateness of the information provided to our management partners. See Response 4.1 for additional details on our strategy to improve communications to provide additional useful social science information into the management process.

Comment 4.5: Augment the SAFE reports with online data delivery tools, such as data visualization and convenient data serving/data filtering tools.

Response 4.5: An online delivery tool for data visualization is underway. AFSC economists and biologists are currently working with our partners at the Pacific States Marine Fisheries Commission on an E-Journal of Scientific Visualization. This platform will host interactive data visualization, data filtering, and extraction tools of the Economic SAFE data. This platform will host data visualization of other AFSC research products as well, including natural and social science applications. In addition to

providing easy to use visualizations and data this will provide an authoritative, referenceable online resource for researchers and the public. Beta versions of the data visualizations and data delivery tools have been presented to the Council's Groundfish Plan Teams in September, 2017.

Comment 4.6: Include more "evaluation" in SAFE documents. That might include sections that interpret the significance of recent research, both from the ESSRP and also from the broader published literature, for the management choices facing the Council.

Response 4.6: Throughout the last 5 years, the Economic SAFEs have been augmented with additional sections that process, synthesize, and interpret economic information available on Alaska fisheries and global seafood markets. This includes economic performance indices, catch share performance metrics, community participation metrics, price projections, market profiles, and reporting on the status of specific economic data collection programs. The SAFE authors will continue to develop new objective measures that we believe evaluate the status and performance of fisheries.

Comment 4.7: Another way to deliver policy-relevant synthesis of research from the ESSRP and from other sources might be through "research briefs" on important topics confronting the management process.

Response 4.7: We believe this is good idea and plan to pursue this strategy. Panelist 3 provided numerous useful suggestions to make these briefs successful, and we plan on submitting an S/T RFP proposal in FY18 along in collaboration with our management partners to update the template for regulatory economic analyses to include methodological or analytical improvements that could be addresses in the near- or medium- to long-term by the AFSC. This project will also create a template for the research briefs for a variety of topics that AFSC research can help inform. As mentioned in our response to comment 4.3, inclusion of a research brief in ESSRP proposals to S/T will also be a factor in prioritizing proposals for funding.

Comment 5.1: Deficiencies in the available cost data are the result of constraints imposed by the existing management structure and the ESSRP is actively involved in trying to address these deficiencies.

Response 5.1: ESSRP has actively worked with the Council and AKRO to develop and implement the mandatory Economic Data Report (EDR) programs currently in effect for some catch share programs (Crab Rationalization, Amendment 80, and American Fisheries Act/Amendment 91), and most recently for the groundfish trawl fishery in the Gulf of Alaska. The Council process for developing EDR reporting requirements has varied over time in terms of the extent of input from scientific staff or the Scientific and Statistical Committee (SSC), ranging from intensive involvement in survey development and design to minimal substantive consultation.

We will also work to address the gap in the economic data coverage across different fleets in the North Pacific that was mentioned by several reviewers. As NOAA Fisheries' Senior Research Economist Doug Lipton pointed out during his presentation to the panel, the Alaska Region lags behind all other regions with the amount of operating and fixed cost data collected across fisheries. We plan on working with the Council, Council staff, AKRO staff, the SSC, and SSPT to pursue a simplified economic data collection more comprehensively across vessels that would be far less burdensome than the current EDR requirements for the industry while still providing the Council with the information it needs to make decisions. With such a focus we believe the Council will be inclined to consider improvements in the EDR data collections.

In addition, we will strive to continue to collect regional economic data on a regular basis. One important element of the data is inter-regional trade flow information. Alaska fisheries are characterized by a large extent of flows of inputs and factors of production among different regions (boroughs, regions, and states). This means that much of the economic impacts from Alaska fisheries leaks to non-Alaska regions, and in order to estimate the economic impacts accurately, we plan to continue to update our regional economic data on a regular basis.

Comment 5.2: While there has been some progress on the collection of socioeconomic data on crew and on processing employees, these areas clearly deserve more attention.

Response 5.2: With respect to crew data, the AFSC acknowledges this as a gap area. The ADF&G crew license information does not identify the fishery in which the crewmember intends to or did participate, and fish tickets include the number of crewmembers (since 2008) but do not include a crew identifier that can be used to track individual crewmember participation. In other words, there is no systematic collection of crew data in North Pacific fisheries. While Economic Data Reporting mandates require collecting information for crew employment and remuneration for some fisheries, e.g., Bering Sea and Aleutian Island crab, other fisheries like halibut and sablefish have no specific crew data. This data gap was specifically identified during the 20-year review of the halibut and sablefish Individual Fishing Quota (IFQ) Program, which tried to address the gap by providing qualitative information garnered during a focus group workshop dedicated to gathering information about crew numbers and compensation. As noted by the SSC, future IFQ Program and other programmatic reviews would benefit from a systematic data collection effort on crew members. A recently implemented survey for crewmembers by the Northwest Fisheries Science Center may serve as an appropriate model for gathering information on crewmembers in the North Pacific as well, and we will follow their progress as that project continues.

Comment 5.3: Much data collected for commercial fisheries compared to little data collected about other uses of marine resources. a) Need for data on recreational fishing; b) Need for data on subsistence harvesting; c) Need for data on non-consumptive uses on marine resources (tourism).

Response 5.3a: The AFSC collects data and conducts research on marine recreational fisheries in Alaska. Surveys of recreational anglers, charter businesses, and charter halibut permit holders have been conducted in recent years. Data from these surveys are used in analyses to better understand recreational fishing behavior of anglers and charter businesses, recreational fishing values, and the economic impacts and other implications of management actions. The AFSC is also actively engaged in efforts to expand this research area. For instance, recreational fishing will be one aspect of a tourism project under development. Commercial, recreational, and subsistence practices are sometimes difficult to distinguish in Alaska where, for example, one may retain subsistence halibut while commercial salmon trolling. This is a common issue in any location where multiple purpose fishing occurs, but the extent to which it occurs is currently unknown. Therefore, AFSC researchers are increasingly looking at ways to examine these mixed-use practices holistically. Efforts have been made with other regions to expand the discussion on better defining distinct parameters for recreational, subsistence, and commercial fishing. AFSC researchers are also exploring approaches that have been used by other regions to collect economic and socio-cultural recreation-related data using crowd-sourcing and big data methods. Moreover, AFSC plans to investigate ways of leveraging data and expertise on climate change science with existing data and tools, perhaps in integrated modeling frameworks, to better evaluate how climate changes and policies impact recreational fisheries.

Response 5.3b: The AFSC acknowledges the need for subsistence data collections and is actively working to address this gap through research projects on salmon and halibut subsistence use in Alaska, which was submitted to S/T during the FY17 RFP. Subsistence harvesting data and research is an area in which (as noted by the review panel) AFSC can strategically collaborate with other agencies and researchers who already work in this arena, e.g., ADF&G and the University of Alaska. AFSC researchers are currently pursuing such collaborative opportunities in order to expand on this area of research. A pilot project on native subsistence users was conducted this past summer and plans are underway to expand the project to include other communities.

Subsistence halibut fishing is also an area of increasing research interest for the AFSC. The Council has identified subsistence halibut fishing practices and impacts on those practices from Council management decisions as areas of research interest. The AFSC is currently examining collaborative research opportunities with ADF&G, which collects biennial subsistence halibut data. AFSC staff have been involved in the analysis of salmon bycatch management actions for many years and this has provided consistent interactions with subsistence users and their advocates.

Subsistence fishing resources are also a key component of food sharing and trading networks in rural Alaska (which is also linked directly to food security), another area of research interest identified by the review panel. The AFSC has previously utilized the Alaska Community Survey (ACS) to examine social networks for sharing resources (including subsistence food) between communities, and is currently examining ways to revise and expand the ACS to include questions that could further address these issues.

Response 5.3c: The review panel identified data gaps in non-consumptive uses of marine resources. This is certainly an area into which the AFSC plans to expand in the future. One project being assessed is a data mining project using social media data to identify non-consumptive activities in Alaska (e.g., marine wildlife viewing and other non-fishing marine recreation activities). More generally, the AFSC will be pursuing strategic collaborations with other researchers who have expertise in this area. Researchers at the U.S. Forest Service, the National Park Service, and the University of Alaska have all done research in this arena and can serve as potential collaborators. As noted in Response 5.3a, ESSRP staff are initiating a project on a project related to tourism in Alaska and how these tourists interact with the marine environment and fisheries, with a potential for FY18 S/T RFP proposal submission.

Comment 6.1: There is growing agreement that social science researchers must take greater care to document research steps and to archive data and metadata. The issue of replicability raises unique problems when research uses confidential data, which is common for ESSRP research.

Response 6.1: The AFSC is committed to social science research which is informative, applicable, and scientifically robust. The staff will work together to ensure systematic data collection and accurate archiving processes. These procedures may benefit from ongoing dialogue within AFSC and across regional staff in order to develop and document best practices. NOAA as a whole has recently undertaken systemic changes in its metadata and data archiving requirements (as part of the Public Access to Research Results initiative) and considerable resources are being provided to ensure proper documentation.

Comment 6.2: A related issue is how NOAA will work with outside researchers to allow research based upon confidential NOAA data.

Response 6.2: As a public institution responsible for the stewardship of the nation's natural resources, we

recognize the need to be transparent with our research and data collection activities. We also have a responsibility to protect confidential personally identifiable information, business identifiable information, and business secrets. We are bound by 50 CFR 600.415 (particularly section (b)(5) related to NOAA contractors and grantees) in regards to sharing confidential data with outside researchers. We appreciate the desire of outside researchers to have access to confidential NOAA data, and we need to balance this while also maintaining the trust of our stakeholders who are providing us with this valuable information. We will continue to provide non-confidential data to outside researchers, often in collaboration with the Alaska Fisheries Information Network (AKFIN).

Comment 6.3: The expectations about prior review of ethical aspects of social science research are being heightened and codified. For academic institutions, this is almost universally achieved through Internal Review Boards (IRB). There may also be extra-institutional review of some types of research, such as by the Alaska Area IRB. An increasing number of social science journals require evidence of IRB approval as part of the peer review process. While ESSRP staff seemed to view Paperwork Reduction Act review as equivalent to IRB review, that process is not exactly equivalent. It may be time for researchers at federal research centers to revisit institutional review of social science research.

Response 6.3: We agree with the review panel that maintaining confidentiality ethical research practices is a priority for AFSC. Currently, AFSC staff are required to follow several research review protocols; however we agree it is worth reviewing the existing social institutional review processes. The IRB protocol which is followed by academic institutions may be appropriate for AFSC, depending on confidentiality concerns, and may be better addressed by NOAA Fisheries at a national level. The AFSC intends to assign a staff lead to explore options with NOAA Fisheries and meet with staff members regarding institutional requirements.

References

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<http://npfmc.legistar.com/gateway.aspx?M=F&ID=528ac57c-7f58-43f6-8471-6bb03de74231.pdf>.

Table: Summary of action items and schedules

Comment number and action item	Schedule
3.2. AFSC socio-cultural working group meetings	Ongoing
4.1. Create outreach materials about ESSRP research	February, 2018
4.1. Participate in the SSPT	November, 2017; ongoing
4.1. Provide management partners with an update of S/T funded research projects and updates on ESSRP publications	November, 2017; ongoing
4.3. ESSRP RFP proposal review by SSPT and management partners	May, 2018
4.3. ESSRP RFP priority scoring template	June, 2018
4.7. Submit research brief RFP proposal	June, 2018
5.1. Work with NPFMC, AKRO, SSC, and SSPT to refine existing economic data collections and pursue a simplified economic data collection more comprehensively across vessels	May, 2019
5.3c. Potentially submit Alaska tourism related RFP proposal	June, 2018
6.3. Explore the potential for IRB-like protocol for NMFS social science research	September, 2018