



NOAA FISHERIES

**Northeast Fisheries Science Center
Science and Research Director's
Annual Guidance Memo for Fiscal Year 2018**

March 14, 2017

Preface

Collectively, we must adapt our science to better inform the needs of management in the face of a rapidly changing natural and human environment. We must also adapt our organization to meet present and future, internal and external challenges.

This Annual Guidance Memo is different than previous iterations. There is a recognition that the science and operation of the Northeast Fisheries Science Center (NEFSC) has developed over time to meet specific needs, focus on specific issues, and broadly support the mission of NOAA Fisheries. Rather than define one component of the NEFSC as more important than another, this document presents a framework for the scientific enterprise of which the NEFSC is part - an enterprise that supports the stewardship of living marine resources in the Northeast U.S. Shelf Ecosystem.

Within this framework, and identifying the challenges we face, this document define our core science and specific priorities for FY18. The focus is removing barriers to organizational and scientific change. Thus, these priorities stress changes in how we perform our work, the emphasis of our work, and actions that will enable additional change going forward.



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NOAA Fisheries Mission

*Stewardship of living marine resources
through science-based conservation
and management and the promotion of
healthy ecosystems.*

Mission and Challenges

The mission of the Northeast Fisheries Science Center (NEFSC) is to provide scientific advice in support of living marine resource management. More specifically, the NEFSC conducts ecosystem-based research and assessments of living marine resources, with a focus on the Northeast U.S. Shelf Ecosystem. These assessments and advice promote the recovery and long-term sustainability of living marine resources in the region, and generate social and economic opportunities and benefits from the use of these resources¹. These assessments and advice are based on the best available science and are provided in an objective and impartial manner.

To achieve this mission, the Northeast Fisheries Science Center strives for scientific and organizational excellence. These two elements were captured in The [Northeast Fisheries Science Center Strategic Science Plan](#) (2016-2021).

Organizational Excellence

To provide excellence in science, the NEFSC needs to be a highly effective organization. The organizational functions are fundamental to meeting the scientific needs of living marine resource management. As such, improving the organization is directly linked to improving the science produced by the organization.

Four core attributes are central to organizational excellence and the organization change that we want to effect: Communication; Diversity and Inclusion; Cooperation and Collaboration; and Efficiency. As we conduct our day-to-day activities, we should ask ourselves whether we are meeting these attributes of organizational excellence.

Communication is defined as the exchange of information and understanding. The NEFSC needs to improve our communication both internally and between the NEFSC and its partners and stakeholders. A key point here is the word “exchange”, which implies information and understanding moving in both directions between and among people and groups.

Diversity and Inclusion - Workforce diversity is defined as a collection of individual attributes that together help agencies pursue organizational objectives efficiently and effectively. Inclusion is defined as an organizational culture that connects each employee to the organization². The principles of diversity and inclusion can be applied to the NEFSC as an organization, as well as to the science that the NEFSC produces.

Cooperation and Collaboration are critical to the success of the NEFSC. Large benefits will be realized from engaging with others in the development of science both from the point of view of increased capacity and increased understanding and acceptance of the science. The NEFSC should serve as a leader of living marine resource science in the region and make this leadership more effective through increased cooperation, collaboration, communication, and data availability.

Efficiency is an important element of any organization, including the NEFSC that provides scientific advice in support of living marine resource management. Efficiency gained from improvements to operational and administrative systems and processes will increase the Center’s effectiveness and resilience, and will improve the use of limited resources and staff. Efficiencies in scientific activities will save limited resources for other uses in the NEFSC.

Organizational Challenges

¹ <http://www.nefsc.noaa.gov/mission.html>

² See <http://www.eeo.noaa.gov/NDIS.html> for the complete NOAA Diversity and Inclusion Policy Statement

The NEFSC faces numerous internal and external challenges. Internally, more than half of the leadership team is new (<2 yrs.) in their positions and the Center has undergone a large reorganization. We are in the midst of a culture-change to be more inclusive, cooperative, transparent, and communicative (Figure 1). Externally, we face budget challenges, staffing limitations, and aging facilities, as well as increasing mandates and requirements from NOAA and DOC. We need to adapt our operations and administration to meet these challenges, while improving our communication, diversity and inclusion, collaboration, and efficiency.

The primary challenge facing the NEFSC is related to budget. Several years of flat budgets,

sequestration, rescission, and increasing costs have created an extremely challenging fiscal environment. Future budgets are uncertain, but the likely best-case scenario is a flat budget. However, significant reductions in budget are possible. Although largely an external pressure, there are internal pressures on the NEFSC budget as well: allocation of resources, determining priorities for funding, and rising fixed-costs. The NEFSC response could include decreasing effort, changing approaches, ending programs, and potentially reassigning staff. These decisions, if necessary, will be made by the NEFSC Science and Research Director and depend on i) the information provided in the FY18 Scientific Planning and Evaluation System Activity Plans, ii) the guidance provided here in the FY18 Annual Guidance Memo, iii) the [NEFSC Strategic Science Plan, 2016-2021](#), iv) input, review, and discussion by the NEFSC Executive Staff, and v) budget guidance received from NOAA Fisheries.



Figure 1. The core values that NEFSC staff want to emulate. Staff choose 10 from a list of 100 and the size of the word is related to the number of votes. The top 10 values were Transparent, Professional, Accountable, Collaborative, Ethical, Communicative, Innovative, Honest, Respectful, and Trustworthy.

Scientific Excellence

Our goal is scientific excellence: accurate, precise, accountable, objective, efficient, timely, useful, transparent, and novel. Our science is conducted to support the management of living marine resources in the Northeast U.S. Shelf Ecosystem, which extends from North Carolina to Maine, and includes watersheds, estuaries, the continental shelf, and open ocean. The NEFSC science enterprise is composed of six components: research, development of new technology and approaches, monitoring, assessment, provision of scientific advice and services, and operations and administration (Figure 2). These components interact with three other components that are external to the NEFSC: management, stakeholders, and services.

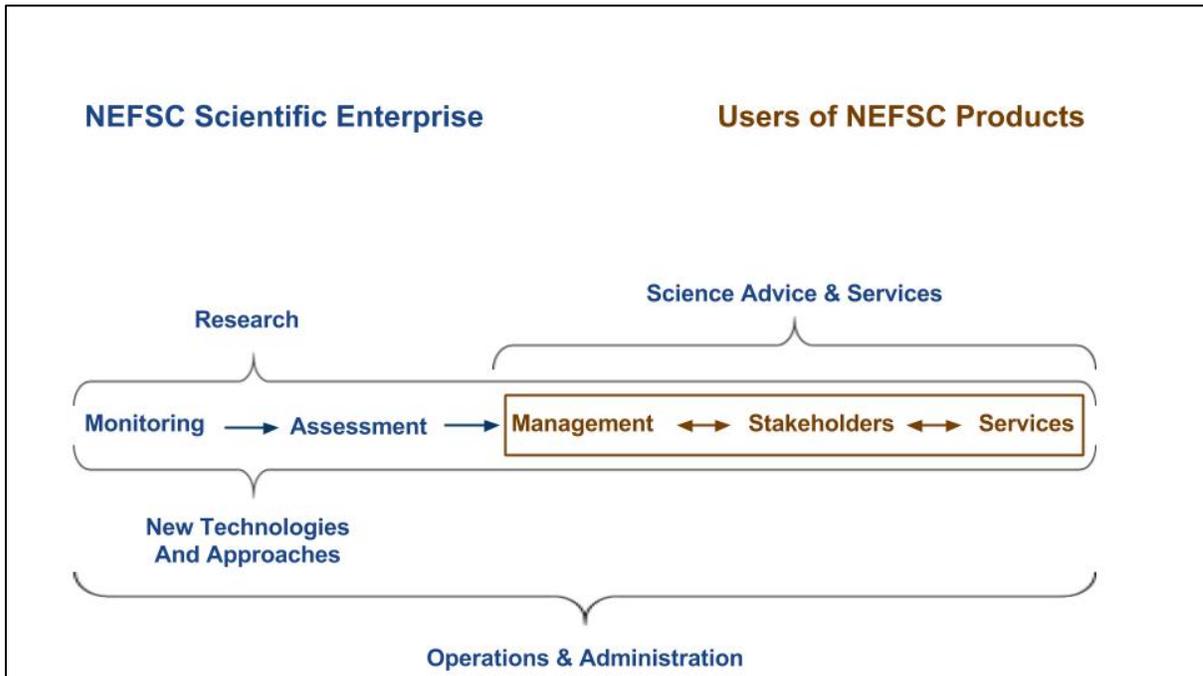


Figure 2. Conceptual diagram of the scientific enterprise that supports stewardship of living marine resources. Blue represents the scientific enterprise of the NEFSC and brown represents external partners: managers, stakeholders, and services.

Monitoring is defined as the systematic collection of data that provide information on changes in biological, physical, chemical, or human conditions. The data collection systems are designed to support the development of assessments and other scientific advice and services.

Assessments estimate the current status of managed species and provide the foundation for making decisions that support management goals and objectives.

Scientific Advice and Services broadly support management programs and decision making. These activities develop a wide variety of products that support the NOAA Fisheries mission and the advice to and decisions of managers. The goal is to support the sustainability of living marine resources, to enhance society's capability to respond to changing ecosystem conditions, and to manage risk by developing science-based decision tools.

Research is defined as laboratory experiments, field-based experiments and process studies, retrospective analyses, studies of human systems, and modeling studies designed to understand and predict changes to living marine resources, the ecosystems they depend upon, and the human communities with which they interact.

The development and evaluation of **New Technologies and Approaches** improves the provision of scientific advice. These technologies and approaches can apply to any element of the NEFSC scientific enterprise or connecting elements across the NEFSC scientific enterprise. New technologies include passive and active acoustics, imaging of water column and benthic habitats, gear engineering, electronic monitoring of fisheries, and genetic applications such as measurements of environmental DNA to assess ecosystem services. New approaches include more involvement of industry in monitoring and research activities and improvements to assessment and advice processes.

Operations and Administration are fundamental to the scientific enterprise and represent the internal functions and services necessary for the NEFSC to operate. These functions and services include secure and safe facilities and IT infrastructure, highly functioning human resource support, effective personnel management, active communication techniques and strategies, effective and compliant budget execution, budget planning activities, procurement, grants, and contracts, and enabling IT support at the facility-level and functional level.

Outside of the NEFSC Science Enterprise, there are three other components of living marine resource management with which NEFSC science interacts.

Management includes all organizations involved in managing living marine resources in the Northeast U.S. Shelf ecosystem. These include the Atlantic States Marine Fisheries Commission, the two regional Fishery Management Councils, the NOAA Fisheries Greater Atlantic Regional Fishery Office, and the NOAA Fisheries Highly Migratory Species office. Other federal agencies are also supported; including the Bureau of Ocean Energy Management, the Army Corp of Engineers, and the U.S. Fish and Wildlife Service. Where resources overlap, management organizations in the southeast U.S. are also supported including the Southeast Regional Fisheries Office and South Atlantic Fisheries Management Council. There are also a number of advisory groups that review and use NEFSC science including the Atlantic Scientific Review Group, Status Review Teams, and Take Reduction Teams. NEFSC science also supports internationally managed resources through engagement in bilateral discussions of transboundary resources with Canada and contributions to the advisory processes in the North Atlantic Fisheries Organization, International Council for the Exploration of the Seas, the International Commission for the Conservation of Atlantic Tunas, and the North Atlantic Salmon Conservation Organization. At the state level, management includes membership on state planning bodies such as the Long Island Sound Management Committee and groups focused on oyster restoration in the Chesapeake Bay. The above is not meant to be an exhaustive list, but provide examples of the wide-array of managers that use NEFSC science.

Stakeholders include the individuals, communities, businesses, organizations, and agencies that rely on living marine resources. Examples are commercial and recreational fishermen and businesses; aquaculture operations; fish and shellfish dealers, processors, and sellers; the shipping, energy, and pharmaceutical industries; local, state, and federal agencies; Federally-recognized tribes; other nations; non-governmental organizations; and research organizations and institutions. Defined as such, stakeholders involve a large array of individuals, groups, and governments concentrated in the Northeast U.S. but stretching nationally and internationally.

Services include all the benefits that stakeholders obtain from living marine resources. These services can be divided into four categories³. Supporting services are necessary for the production of other services. For example, prey provide a supporting service to predators. Provisioning services are products obtained from living marine resources, for example, money obtained for the sale of catch. Regulating services are benefits obtained from management of living marine resources. For example, conserving Essential Fish Habitat⁴ protects the productivity and carrying capacity of fish and shellfish populations. Cultural services are non-material benefits obtained from living marine resources for example, the non-material value of cod as an iconic species in the Northeast U.S.

Core Science

Core science is science that falls within the NEFSC Science Enterprise (Figure 2) and directly addresses the elements of the NOAA Fisheries mission: fisheries management, aquaculture, protected species management, and habitat and ecosystem management. As such, core science is broad, but there are boundaries; the connection to the NOAA Fisheries mission must be direct. Core monitoring activities include those programs that directly contribute data to the NEFSC's fisheries, protected species, and ecosystem assessment activities. Core assessment and advice activities include fisheries, protected species, and ecosystem assessments, as well as economic and social impact analyses associated with fisheries, protected species, and ecosystem. Advice and support to the aquaculture industry is also a core science activity. Research and the development of new technologies that are directed and designed to support the NEFSC Science Enterprise are also core - we need to continually work to improve our monitoring,

³ see <http://www.nefsc.noaa.gov/ecosys/ecosystem-status-report/ecosystem-services.html> for a more detailed discussion of services

⁴ See <http://www.habitat.noaa.gov/aboutus/statutoryauthorities.html> for definition of Essential Fish Habitat

assessments, advice, and services. Finally, the operations and administration of the NEFSC is fundamental to our science - facilities, IT, budget, procurement, grants, communication, and administration.

Scientific Challenges

There are multiple challenges facing the science of living marine resource management in the Northeast U.S. First and foremost is the complexity and array of issues related to living marine resource management: wild-captured fisheries, cultured fisheries, protected species, habitat, various natural and human interactions, and ecosystem considerations.

The second major challenge is the recognition that our stock assessment process needs to change. Working with our partners, we need to continue the development of assessment approaches and modify the manner through which assessments are conducted, while meeting our ongoing assessment obligations. Changing an operational system during operation is challenging but implementing these changes is a priority for NOAA Fisheries^{5,6,7,8} and the Northeast Fisheries Science Center^{9,10}.

The third major challenge is that the Northeast U.S. Shelf Ecosystem is one of the fastest changing ecosystems in the world. Over the past 15 years waters have warmed in excess of 2°C, in part due to multi-decadal variability in climate and longer-term changes in climate. Understanding the effects of these changes in the physical system on living marine resources is a priority, as is understanding the impacts of these changes on living marine resources management¹¹.

⁵ <http://www.st.nmfs.noaa.gov/ecosystems/ebfm/creating-an-ebfm-management-policy>

⁶ <http://www.st.nmfs.noaa.gov/StockAssessment/>

⁷ <http://www.st.nmfs.noaa.gov/stock-assessment/stock-assessment-prioritization>

⁸ <https://www.st.nmfs.noaa.gov/stock-assessment/future-of-stock-assessment>

⁹ <http://www.nefsc.noaa.gov/rcb/stratplan/nefsc-strategic-science-plan.pdf>

¹⁰ http://www.nefsc.noaa.gov/program_review/pdfs/nefsc-directors-memo-2014-program-review.pdf

¹¹ See <https://www.st.nmfs.noaa.gov/ecosystems/climate/rap/northeast-regional-action-plan> for detailed description of regional action plan

FY18 Priorities

The Northeast U.S. Shelf Ecosystem is one of the fastest changing ecosystems in the world. Many components of the ecosystem are changing; including ocean and climate conditions, predator and prey abundances, and habitat availability. Human interactions with the natural system are also changing, including fishery management systems and increasing interaction among ocean use sectors. The NEFSC needs to embrace Ecosystem Based Management to provide the best science possible in support of living marine resource management in this dynamic region. However, we face well defined barriers to moving forward with an ecosystem perspective.

FY18 will focus on eliminating or greatly reducing these barriers.

In general, the priority for FY18 is to support the NEFSC Strategic Science Plan, which spans the breadth of the NOAA Fisheries mission: Sustainable Fisheries (including Aquaculture), Protected Species, Ecosystem-Based Fisheries Management, and Organizational Excellence. Specifically, we will address issues that limit our ability to implement the Strategic Plan.

Numerous reviews of NEFSC science and operations have been conducted over the past 5 years. The recommendations of the various program reviews and planning documents should be incorporated into FY18 activities. These reviews have identified numerous barriers to improving our science and our organization. Some of these reviews have been part of a formal NOAA Fisheries Program review process¹²: [Data Collection & Management](#), [Stock Assessment Programs](#), [Protected Species Science](#), and [Ecosystem and Climate Science Review](#). A Social Science Program review is scheduled for 2017. In addition, there have been independent reviews of the [Observer Program](#), [Scallop Survey Methods](#), [Communications & Outreach](#), and Northeast Cooperative Research Program¹³. Deloitte Consulting also recently reviewed Human Resources and Budgeting functions at the NEFSC. In addition to these reviews there is a number of agency and regional plans for improving NEFSC science: including the [Habitat Assessment Improvement Plan](#), [Stock Assessment Improvement Plan](#), [Northeast Regional Action Plan](#), [Ecosystem Based Fisheries Management Roadmap](#), [NEFSC Strategic Plan](#), and [NOAA Marine Aquaculture Strategic Plan](#). Addressing actions identified in these review and plans should be an important element of FY18 activities.

Organizational Excellence

The priority for FY18 is inclusion - both internal and external. From the NOAA Diversity and Inclusion Policy Statement,

“Each of us must contribute to a sustained and vibrant climate and culture in which every staff member at every level of the agency genuinely feels they are professionally valued and that their contributions make a positive difference.”

We must also express this attitude with our external stakeholders and partners. Throughout the year, we will plan multiple events focused on inclusion. Divisions and Branches are encouraged to pursue their Diversity and Inclusion plans. The Staff Advisory Council will be given dedicated resources to address inclusion issues throughout the NEFSC. A Facility Directors Board will be initiated and the All Supervisors group will be continued and these groups will also address issues related to inclusion and organizational excellence more broadly.

Monitoring

The first priority for monitoring programs during FY18 is to evaluate, develop and implement work plans for the use of industry-based platforms to collect data and information used in NEFSC assessments and scientific advice. Time on NOAA-vessels is increasingly limited and a Guiding Principal of our Strategic Plan is collaboration with partners and stakeholders. The Working Group to Evaluate Integration of Industry Platforms with NEFSC Bottom Trawl Surveys will complete its initial evaluation of alternatives related to industry participation in fishery independent

¹² <http://www.st.nmfs.noaa.gov/science-program-review/>

¹³ Available in March 2017

trawl surveys. The NEFSC will continue to work with the Northeast Trawl Advisory Panel to develop and implement the greater use of industry platforms in monitoring and research activities. The review recommendations from the [Review of Sea Scallop Survey Methodologies and Their Integration for Stock Assessment and Fishery Management](#) will be addressed through changes in survey design and / or operations.

The second priority for monitoring programs during FY18 is to improve Fishery-Dependent Data Systems: specifically implement a Unique Trip ID and address observer deployment issues in the Mid-Atlantic. This specific issue was identified as a major barrier to the collection of fishery dependent data in the recent [Program Review of the Northeast Fisheries Science Center Fisheries Sampling Branch](#). The Unique Trip ID will be implemented through the joint NEFSC-GARFO effort to improve Fishery Dependent Data through the development of a Trip Management System. Observer deployment issues will be addressed internally by working with the contract provider and externally by communicating the level of anticipated observer effort and the requirements and expectations of both vessel operators and observers. Efforts to improve observer programs are linked to larger fishery monitoring programs and potential changes also need to be evaluated from a cost-effectiveness perspective.

The third priority for monitoring programs is make data from core surveys publically available in compliance with the NOAA Plan for Increasing Public Access to Research Results. Data availability remains a barrier for users of NEFSC science and responding to data requests takes staff time and resources. Core NEFSC surveys are: Spring and Fall Bottom Trawl Survey, Scallop Survey, Clam and Ocean Quahog Survey, Ecosystem Monitoring Surveys, Shrimp Survey, and Protected Species Surveys. The NEFSC will develop a small working group to review options for making survey data publically available and then develop plans for making data available by the end of FY18.

Assessment

The first priority for assessment activities is to improve the fisheries assessment process. Numerous internal and external programs reviews have identified the process of fisheries assessment as a barrier to developing new assessment approaches. The NEFSC will work with the Northeast Regional Coordinating Committee to make changes to the assessment process with a goal of enabling scientific developments and improving the responsiveness of science and management to the changing ecosystem.

The second priority for assessment activities is to integrate the new Marine Recreational Information Program (MRIP) data into NEFSC assessments and advice. Changes in a major data input into many NEFSC creates significant challenges for assessments, managers, and users. During 2018, updates and benchmarks will be completed by the NEFSC using the new private boat and shore fishing catch estimates. Priorities for updates and benchmarks will be developed with the Northeast Regional Coordinating Committee. New recreational catch estimates will likely require advice to assist Councils in evaluating the social and economic implications of allocation decisions including allocations between and among user groups.

The third priority for assessment activities is to evaluate the schedule for protected species assessment and advice under the Endangered Species Act and the Marine Mammal Protection Act. Specifically, the interval of assessments will be evaluated in the context of other advice that is developed by the NEFSC (e.g., Take-Reduction Teams). The current schedules create inefficiencies in the allocation of NEFSC staff time and some of the internal processes could be improved to reduce the demand on NEFSC staff.

Scientific Advice and Services

The first priority for scientific advice and services is to better understand the advice and services that are provided by NEFSC staff and the amount of staff time that is allocated to these activities (e.g., Plan Development Teams, ICES Working Groups, Fishery Management Action Teams, aquaculture industry extension). The foundation for this priority will come from the description of products and services developed as part of the 2021 Staffing Plan. During 2018, the roles and responsibilities of staff in various external planning groups, work groups, and teams will be better defined through a cataloging of activities, which will then be followed by a review by the Executive Staff. This review may shape future priorities and the development of a strategy for providing scientific advice and services.

The second priority is to support regional Ecosystem-Based Fisheries Management activities. There are a number of activities in the region, but the NEFSC should focus on activities in partnership with the [NEFMC](#), [MAFMC](#), [ASMFC](#), [Northeast Ocean Plan](#) and [Mid-Atlantic Ocean Plan](#). This priority extends across the NEFSC and requires contributions of all Divisions. In addition to the development of scientific approaches from implementing EBFM,

effort is needed to understand the social and economic dimensions of transitioning from current to potential future management approaches.

Research

The first priority for research is to directly link research activities to the assessment and scientific advice functions of the NEFSC. Historically, the NEFSC has conducted excellent research, but this research has not always been well-connected to assessments and advice. A direct link does not mean those involved in assessments and scientific advice dictate the research that is to be done. But the connection between research and assessments and advice needs to be clear. Additionally, research activities should focus on Northeast U.S. Shelf ecosystem and living marine resources that use this ecosystem. However, since many of the region's managed species use multiple ecosystems and since there is value in comparing across ecosystems, NEFSC research is not limited to the Northeast U.S. shelf ecosystem.

The second priority for research activities is to publish results in the peer-reviewed literature and make data developed during research activities publically available. It is essential that the NEFSC make research results available. Peer-review publication provides an independent evaluation of research quality and allows the results of the research to be broadly available. Providing for publically available data generated by research activities is also important as the data can be evaluated and used by others. This priority is consistent with the [Data Quality Act](#) and the [NOAA Plan for Increasing Public Access to Research Results](#).

The third priority is to conduct research to support aquaculture in state and federal waters. Research is needed to support decisions regarding offshore aquaculture: i) evaluation of offshore areas for aquaculture suitability in a changing environment, ii) development of techniques for culturing species suitable for offshore aquaculture, iii) examining the interactions between offshore aquaculture and fisheries, protected species, and human communities, and iv) documenting ecosystem services provided by offshore aquaculture. Efforts should also focus on strengthening our ability to reduce spread of disease within cultivated stocks: i) research on probiotics and immunology as well as ii) eco-forecasting of disease vectors. These efforts serve managers and stakeholders, including industry, throughout the region and nationally.

The fourth priority is to understand the factors limiting the recovery of [Atlantic Salmon Gulf of Maine Distinct Population Segment \(DPS\)](#) and [North Atlantic Right Whale](#) and to research steps that might be taken to promote recovery. Both face a significant risk of extinction during this century. Recovery will require continued research, as well as strengthening our partnerships with GARFO, other resource agencies, industry, academia and the NGO community from the regional to international level.

New Technologies and Approaches

The first priority for New Technologies and Approaches is to more fully integrate cooperative research into the NEFSC Science Enterprise. Cooperative Research is by no means new. But the Cooperative Research Program review identified several major barriers to the broader use of cooperative research information in NEFSC science. Addressing the Cooperative Research review will be a priority for FY18. In particular, development of a specific plan for the use of NEFSC Study Fleet data in assessment and advice and a more general plan to develop science products from cooperative research projects.

The second priority for New Technologies and Approaches is to develop detailed science plans for the use of acoustics and HabCam in NEFSC research and advice. These technologies have the potential to revolutionize how we monitor the ecosystem. However, we need to clearly articulate what is needed to operationalize these technologies: identify the steps and components necessary to use these data in NEFSC assessments and advice and define a pathway for transition from older technologies and approaches. These plans must include the information technology components including data systems and management. One plan should address passive acoustics, one plan should address active acoustics, and one plan should address HabCam. These plans will be comprehensive and not focus on individual research or monitoring topics. The purpose of these plans is to provide a rationale and roadmap for operationalizing the technologies into NEFSC core monitoring programs, assessments, and advice.

Operations and Administration

The first priority of operations and administration is the development and distribution of transparent budget tracking and monitoring tools to support planning and execution processes. This emphasis on budget includes permanent, temporary, and reimbursable funds. Budget and Finance Branch will lead this priority, but the users of budget information also need to be directly involved.

The second priority is to complete the James J. Howard Marine Sciences Laboratory renovation at Sandy Hook, NJ and relocate staff currently in Building 74 to the renovated lab building. Cooperation and coordination between Facility Operation and Safety Branch staff and Ecosystem and Aquaculture Division staff is required to successfully meet this priority. NOAA Office of the Chief Administrative Officer (OCAO) is lead for this project and NEFSC staff will need to work closely with the OCAO to successfully address this priority.

The third priority is to implement the NEFSC Communication Plan developed during FY17. This implementation includes the development of a fully-functioning social media effort. The Research Communication Branch will lead this implementation, but all Divisions need to be included. Improving our internal and external communications is an opportunity to facilitate aspects of the cultural change underway at the NEFSC (see Figure 1).

The fourth priority is to conduct external reviews of our IT/data management functions and Directorate function. These reviews will complete the external reviews of NEFSC science and organizational components that started in 2013 with the Stock Assessment Data Collection Program Review.

The fifth priority is to develop a strategy for obtaining external funds to support the science conducted by the NEFSC. External funds include temporary funds from NOAA and reimbursable funds from outside of NOAA. The strategy will include priority topics for seeking external funds, a description of the sources of external funds, and clear guidelines for applying for external funds. It is essential that seeking external funds clearly fits into the NEFSC Science Enterprise and addresses the elements of the NOAA Fisheries mission.

Measures of Success

Success - Core Science Activities

- Meet assessment needs as defined by the Northeast Regional Coordinating Committee
- Meet advice needs of Northeast regional fishery managers
- Meet assessment and advice needs as mandated by the Marine Mammal Protection Act and Endangered Species Act
- Provide economic and social impact analyses related to fishery and protected species management
- Provide science products and advice to the aquaculture industry
- Provide science products and advice for regional ecosystem-based management efforts underway by regional management and planning bodies.
- Collect and maintain long-term datasets related to fisheries, protected species, the Northeast U.S. Shelf ecosystem and human interactions.

It is important to note, the budget pressures faced by the NEFSC may require a reduction in these core activities. Because of the structure of our budget, the range of core activities will likely not change, but we must be prepared to change the content of each core activity.

Success - FY18 Priorities

Organizational Excellence

- Through a Center-wide survey, staff respond that the Center as a workplace is improving and becoming more inclusive (lead Directorate)
- Through a Center-wide survey, staff respond that they feel more empowered to effect change at the NEFSC (lead Directorate)

- Mechanisms for improving external communication are implemented and methods for evaluating the effectiveness of external communications are developed (lead OMI/RCB)
- A Facility Directors Board formed and documents key internal challenges facing NEFSC facilities (lead Directorate)
- The All Supervisors group is continued and meets regularly; three key actions for improving supervision are identified (lead Directorate)
- Staff Advisory Council continues to function and advise the Executive Staff on improvements that can be made at the NEFSC (lead Staff Advisory Committee)
- A more thorough and effective employee onboarding program for new Federal and Contract personnel is deployed. (OMI/HR)

Monitoring

- The use of industry-based platforms in monitoring and research increases (lead FMRD/CRB)
- The preliminary work of the Working Group to Evaluate Integration of Industry Platforms with NEFSC Bottom Trawl Surveys submitted and discussed at the Northeast Trawl Advisory Panel (lead PEMAD)
- A Unique Trip ID is implemented in the regional Fishery Dependent Data collection systems (lead FMRD)
- Observer deployment rates increase over FY17 levels (lead FMRD/FSB)
- Data from two core surveys are made publically available (lead EAD/OCB)

Assessments

- In partnership with the NRCC, complete an evaluation of the stock assessment process and begin implementation of recommended changes (lead READ)
- Integrate new recreational catch estimates in data updates, model updates, operational assessments, and benchmark assessments (lead READ/PDB)
- Develop a schedule for protected species assessments and the development of ancillary advice related to these assessments (lead READ/PSB)

Science Advice and Services

- Develop on inventory of NEFSC staff support for various advisory processes including Plan Development Teams, ICES Working Group, NOAA Fisheries Working Groups, etc) (lead Directorate)
- Support the continued development of EBFM in the region through participation in New England Fishery Management Council, Mid-Atlantic Fishery Management Council, Northeast Regional Planning Body, and Mid-Atlantic Regional Planning Body activities (lead READ/EDAB)

Research

- All NEFSC research is well aligned with the NEFSC Science Enterprise (lead Executive Staff)
- The quantity and quality of NEFSC publications increases in FY18 compared to FY15-FY17 (lead Executive Staff & OMI/RCB).
- Critical aquaculture research is completed and communicated to managers and stakeholders (lead EAD/ASB & EAD ASEB)
- Research is completed to better understand the status and stressors of Atlantic Salmon and North-Atlantic Right Whale and this understanding is communicated to managers and stakeholders (lead READ/PSB)

New Technologies and Approaches

- The plan to institute cross-cutting cooperative research study teams is executed and mechanisms to engage industry in this process are in place and effectively implemented. (lead FMRD/CRB)
- A plan for including study fleet data in assessments is completed (lead FMRD/CRB)
- Research-to-operations plans are completed from active acoustics, passive acoustics, and HabCam (lead READ/PSB & PEMAD/ESB)

Operations and Administration

- A budget-tracking and monitoring tool is successfully implemented (OMI/BFB)

- Renovation at the James J. Howard Sciences Laboratory is completed and staff are successfully settled in the renovated facility (OMI/FOSB coordinating with NOAA/OCAO)
- Through a Center-wide survey, staff respond that internal communications at the NEFSC have improved (lead Directorate)
- A core-set of external communication products are defined and developed (lead OMI/RCB)
- An external review of IT infrastructure, data management, and function is completed and a response to the review is produced (lead Directorate)
- An external review of the NEFSC Director's Office is completed and a response to the review is produced (lead Executive Staff)
- An strategy is developed and implemented for pursuing external funds (lead Directorate)

Conclusions

This Annual Guidance Memo is different than previous versions. The purpose is to give concrete guidance for activities to be emphasized in FY18. This document does not attempt to prioritize different aspects of the NOAA Fisheries Mission (e.g., fishery assessment is not higher priority than protected species assessment). Nor is it an attempt to prioritize one aspect of the NEFSC Science Strategic Plan over other aspects (e.g., Ecosystem-Based Fisheries Management is not a higher priority than Organizational Excellence). Rather, this Annual Guidance Memo presents a framework for the NEFSC Science Enterprise and documents the multi-dimensionality of our work and the connections of our work to activities inside and outside the NEFSC. From this framework, core science activities are presented and specific priorities are identified for FY18. The emphasis for FY18 is to reduce or eliminate internal barriers to change.