Gulf of Maine Research Institute

Marine Resource Education Program

BUILDING NATIONAL FISHERIES OUTREACH & SCIENCE EDUCATION CAPACITY THROUGH TRANSFER AND IMPLEMENTATION OF THE MARINE RESOURCE EDUCATION PROGRAM (MREP) TO ALL U.S. FISHERY MANAGEMENT COUNCIL REGIONS

Proposal Summary

In response to interest from a number of other fishery management regions, the Gulf of Maine Research Institute ("GMRI") proposes to adapt the Marine Resources Education Program's outreach & science education process, originally developed in New England ("MREP-NE"), and help lay the foundation for other fishery management regions of the country to fully engage a diversity of stakeholders as envisioned by the reauthorized Magnuson-Stevens Act.

> *"This is the only outreach vehicle for NMFS that is actually working. If it can work in the New England groundfish industry, it can work anywhere"* – NEFSC Senior Staff
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> *"We have yet to hear a negative comment about MREP after 200+ interviews"* – Preston Pate, NE Systems review in progress

The strength of the MREP-NE model is that it was initially created by industry, which also plays a lead role in its implementation. Extension of the program to other fishery regions will mirror this and draw upon local fisheries industry to serve as leaders in regional implementation. The curriculum will be tailored to the fisheries, fishing communities and management practices of the region but retain the core MREP education & outreach methods and processes, which are largely transferrable.

Initial entry into each region will begin by developing a local Board of Advisors, and facilitating the initial implementation of a 3-day Fisheries Science module and a 3-day Fisheries Management Module. After an initial startup period, the programs will become embedded in each region, according to their needs. The MREP Program Manager will provide long-term connective tissue between the regional groups with in-person consultation, periodic implementation support, and through semi-personalized community based communications such as alumni newsletters. GRMI could continue to provide support where required, assist with evaluation and could act as a financial administrator as necessary.

MREP curriculum is chiefly delivered with the support of academic and NOAA agency partners of the region in which it is being implemented, and provides an outreach mechanism for these partners that is unparalleled in its effectiveness. Presenters from the Northeast Fishery Management Council (NEFMC), NMFS Northeast Regional Office (NERO), NMFS Northeast Fishery Science Center, and NMFS Cooperative Research Partners Program offer a personal identity to these agency functions, thereby helping to break down historical barriers and creating meaningful dialog among stakeholders in a neutral setting.

The 3-year scaling effort to develop MREP in each of the 7 fisheries management regions, is estimated to be $550K in year one, $1.15 million in year two and $2.5 million in year three and beyond and will train 500 industry members in fisheries science and the council process, leaving behind outreach & education capacity, infrastructure and methods to deliver this training program on a national level for years to come.

A set of appendices sets out the outline budget in more details, further information on the curriculum, proposal methodology for transfer and adaptation to other regions and a suggested time line.

Curriculum

We will offer a three-day Introductory Fisheries Science, a three-day Fisheries Management Module and an Advanced two day science workshop, at a location central to each of the area's fisheries. Dates would be determined by the Board of Advisors to fit well with fishery management schedules. We recommend a class size of 20 to 24 per session. The preferred participant list will include Council members, active commercial fishermen from diverse sectors, recreational fishermen, seafood processors/dealers, as well as other professionals, such as ENGOs.

The MREP curriculum will reflect the information needs of the fishing and management community in which it is being implemented. Early in preparation for module delivery, we will poll key industry and management members in the region for relevant topics and encourage the localized Board of Advisors to shape the curriculum accordingly. The following is a sample curriculum outline and speakers list:

Fisheries Science Module:

- General Oceanography, Dr. Dave Townsend, University of Maine
- Concepts in Population Biology, Dr. Gary Shepherd, NEFSC
- Sampling Statistics and Surveys, Dr. Steve Cadrin
- Stock Assessments and Modeling, Dr. Steve Cadrin OR Dr. Gary Shepard
- Ecosystem-Based Management, Dr. Jason Link or Dr. Mike Fogarty NMFS
- Collaborative Research, Dr. Earl Meredith, NMFS CRPP
- Fishing Gear Operation and Innovation, Dr. Steve Eayrs, GMRI

Fisheries Management Module:

- The Regional Fishery Management Council Process, Ms. Pat Fiorelli, NEFMC
- Federal Fisheries Management, Mike Pentony or Moira Kelly, NERO
- Overview of the Atlantic State Marine Fisheries Commission, Mary Beth Tooley, NEFMC
- Attending a Council Meeting: How to Participate Effectively, John Williamson
- Negotiating Skills and Fishery Negotiation Role Play, Laura T. Singer
- The Role of the United States Coast Guard, Lt. Ryan Hamel, U.S. Coast Guard
- The Role of Science in Management, Frank Almeida, NMFS NEFSC
- The Role of the U.S. Congress and The Courts, Mr. Michael Conathan
- Sustainable Fisheries: What Are the Current Issues? Mr. Paul Howard or Mr. Chris Moore

Insights into Stock Assessments, F/V to R/V and an exploration of the R/V Henry Bigelow:

- Survey Objectives & Design, Dr. Russell Brown, NEFSC
- Dealer and VTR Data, Mr. Greg Powers, Fishery Statistics Office
- Overview of the Observer Program, Ms. Amy Van Atten , Observer Program
- Age and Growth Lab Jay Burnett or Gary Shepherd, NEFSC
- Explore capabilities of R/V Henry Bigelow with Officers:
    - Fishing Gear and Performance Evaluation, Richard Raynes & Phil Politis
    - Acoustic Capabilities and Sampling, Mike Jech
    - Vessel Design Characteristics and Special Features, Dr. Chuck Byrne
    - Fish Handling and Sampling, Geoff Shook or Stacey Rowe
- Fisheries Stock Assessment Methods, Dr. Paul Rago

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Budget Detail

MREP-NE covers travel and hotel expenses for non-federal participants, as well as meals for all participants. Active commercial fishermen typically are offered a $125/day stipend (some decline). Industry moderators and some course presenters receive an honorarium for their time. We recommend the same compensation structure for MREP extensions. (Our projected budget assumes payment of stipends to 15 fishermen attending each of the two modules.)

We intend to develop the MREP Board of Advisor capacity and implement one pair of modules in each of one to two new regions per year, over a three-year period. We will also engage in continuous curriculum improvements and delivery methods in the original MREP-NE, and transfer these improvements to other regions as applicable.

Based on prior experience, we find that average incremental expense for program delivery for each module costs ~$50K. The program requires one full-time National Program Manager, a half-time staff person per region for logistics and administration, and additional part-time & travel support for Board of Advisor development, outreach, ongoing curriculum improvements and program evaluation.

The preparation and development costs per region will be $75,000 per region. The cost of delivering an annual schedule of one to two six-day programs per region, with 25 participants per program, is estimated at around $340,000 each.

The full annual operating cost of implementing and administering MREP in five to seven fishery management regions is approximately $2.5 million per annum.

A full detailed budget and is available upon request.

For More Information Please Contact:

Alexa M. Dayton
Community Training and Outreach Program Manager
Gulf of Maine Research Institute
350 Commercial Street
Portland, ME 04101
(207) 228-1645
alexa@gmri.org