For FY 2013, it is anticipated that up to approximately $400,000 could be made available for projects that address funding priorities identified in the Program Priority Section (I.B.1 - I.B.2). NCBO encourages projects that are collaborative, interdisciplinary, and will leverage other resources. Preference will be given to projects with clear management application and to projects targeted in specific tributaries or watersheds to improve understanding of the local ecosystem.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

NCBO's Fisheries Science Program targets better understanding of fisheries status, trends, and ecosystem value to improve sustainability and ecosystem based management of Chesapeake Bay species. The program seeks to establish a strong understanding of the Chesapeake Bay system, the complex connections among organisms and their habitats and the wide range of processes that control their dynamics. Research conducted under the Fisheries Science Program should help to:

- Increase use of ecosystem information in natural resource decisions;

- Increase use of climate considerations in fishery decisions and in coastal and marine spatial planning processes;

- Increase understanding of the role of habitat in providing ecosystem services and improve habitat assessments; and

- Develop fish stock assessments incorporating habitat and ecosystem information.

In this request for proposals (RFP), NCBO is seeking research that will guide fisheries management through improved understanding of ecosystem processes and habitat linkages to fisheries sustainability. Research findings should lead to tools and applications that assist policy makers in weighing trade-offs among alternative courses of action and help ensure that seafood harvest and production, recreational fishing opportunities, and non-consumptive uses of living marine resources continue to support vibrant coastal communities and economies.

B. Program Priorities

The NOAA Chesapeake Bay Office is soliciting research proposals for three areas of interest, within two focus areas:

1. Focus area 1: Ecosystem Services of Restored Oyster Reefs
   - Quantify nitrogen flux rates (including denitrification and nitrogen sequestration) over their annual cycle in subtidal restored oyster reefs, compared to rates in unrestored control sites in the same tributary. Investigate how those rates are affected by oyster density and other factors.
   - Quantify the finfish utilization and productivity of restored oyster reefs, compared to unrestored control sites.
2. Focus area 2: Ecosystem Based Fisheries Management
   - Assess the dominant drivers of Chesapeake Bay fishery sustainability for key finfish species (striped bass, menhaden, and/or alosines). Assess the relative importance of such factors as habitat, species interactions, climatic variability, and adjacent land use in fishery sustainability.

Proposals under the first focus area are encouraged to target projects in tributaries with recent (within 10 years) or planned large scale oyster restoration activity (restoring 50 acres or more in that tributary). That targeting would make the results more useful for understanding the ecosystem benefits of oyster restoration projects.

Proposals under the second focus area are encouraged to provide endorsement letters from Chesapeake fishery management agencies that describe how the proposed research results would be used by those agencies to improve Bay fisheries management.

To quantify the benefits of oyster reefs and reef restoration in the Chesapeake Bay, NCBO is measuring ecosystem services in the Little Choptank River where large scale restoration is being planned. The project is designed to take into account the variability in tributary habitat (i.e., reef/bottom complexity and water column habitat) affecting the level of ecosystem services (e.g., fish production) provided by oyster reef restoration. The four main objectives of this project are:

1) To identify relationships between oyster abundance and benthic habitat morphology

2) To quantify finfish community structure (i.e., species occurrence, relative abundance, distribution, richness/diversity) on oyster restoration sites before and after project implementation

3) To assess the effect of water column habitat variability (e.g., temperature, salinity, dissolved oxygen)

4) To model habitat-based trophic interactions associated with oyster reef restoration.

NCBO is seeking proposals under the first focus area that will complement this project within the Little Choptank River or other tributaries where large scale restoration has occurred or is planned, per the criteria outlined above.