

# Use Case: Getting Researchers, Managers, and Stakeholders on the Same Page

<http://bit.ly/NI-ESCM>

## CONTEXT

The North Carolina National Estuarine Research Reserve (NERR) hosted a workshop with resource managers, on-the-ground practitioners, researchers, and NGO representatives in the process of developing a statewide plan for oyster restoration and management. This workshop, structured around developing and discussing an Ecosystem System Services Conceptual Model (ESCM), allowed stakeholders to reach consensus on which critical ecosystem services are provided by restored oyster reefs in North Carolina and who depends on them. Each stakeholder helped identify which ecosystem services are most important to their constituents, and experts helped to ensure that services identified were tightly linked or attributable to the reef restoration options being considered. This agreed upon list of social and economic outcomes then served as a starting point to identify possible statewide metrics for monitoring the social and economic outcomes of oyster reef restoration. The ESCM developed during the workshop served as a strong framework for getting every stakeholder on the same page regarding the myriad social and economic benefits that may result from oyster reef restoration in the North Carolina context.

## PROCESS

The NC NERR hosted a daylong workshop with approximately 15 participants representing different stakeholder groups, notably managers, practitioners, researchers, and conservation NGOs in North Carolina.

### *Workshop Part 1—Introduce and Finalize the ESCM*

The workshop participants reviewed a draft general oyster ESCM and provided feedback on how it could better represent the outcomes of oyster reef restoration in North Carolina. Their suggestions included omitting “respiratory health related to algal blooms” and adding “waterfowl hunting,” as those outcomes were more applicable to oyster reef restoration projects in North Carolina. The model was modified when there was consensus amongst diverse stakeholders regarding proposed changes (Figure 1: see page 3).

### *Workshop Part 2—Identify Important Socioeconomic Outcomes*

From this revised model, each workshop participant chose three socioeconomic outcomes that were most important from their perspective with a reminder to focus on those they thought would be most likely affected by oyster reef restoration. Socioeconomic outcomes with the most votes were considered for metrics.

### *Workshop Part 3—Initiate Metrics Discussion*

Using the list of top socioeconomic outcomes, the final session of the workshop focused on identifying possible metrics that could be used to monitor the ecosystem services of oyster reef restoration projects. For each selected outcome, the participants identified a set of possible

metrics using a National Ecosystem Services Partnership–developed metrics database. This list served as a starting point for discussion to determine the feasibility of metrics and if they are attributable to the targeted socioeconomic outcomes. A key aspect of metric selection was whether data on a particular metric would resonate well with the communities that each stakeholder at the workshop represented.

## RESOURCES USED

***Workshop Guide.*** A workshop to develop the model was designed using Sessions 2 and 3 described in the *Workshop Guide: Using Facilitation Techniques to Integrate Ecosystem Services into Coastal Management Decisions*.

***Oyster ESCMs.*** A draft oyster reef restoration ESCM was introduced to the workshop participants who then suggested modifications based on their knowledge.

***NESP Metrics Database.*** A metrics database was used to spur discussion about possible socioeconomic metrics.

## APPLICATIONS

***Getting everyone on the same page.*** A workshop format was an appropriate avenue for convening stakeholders of oyster reef restoration in North Carolina and getting them on the same page regarding its benefits.

***Getting input from diverse expertise to understand the complete system.*** No one person is an expert in all the linkages represented in an ESCM diagram and having other perspectives in the room allowed participants to ask questions about how different parts of the North Carolina oyster reef social-ecological system interact.

## ADDITIONAL RESOURCES

Mason, S., R. Karasik, and L. Olander. 2020. [Ecosystem Services Resources for Oyster Reef Restoration at the North Carolina NERR](#). NI Report 20-04. Durham, NC: Duke University.

