

# The Social Indicator Project: integrating social science into ecosystem management for New Hampshire's estuaries

A NOAA Coastal Management Fellowship Project in collaboration with the New Hampshire Coastal Program (NHCP), Great Bay National Estuarine Research Reserve (GBNERR), Plymouth State University (PSU), and the Piscataqua Region Estuaries Partnership (PREP), an EPA National Estuary Program housed at the University of New Hampshire (UNH).

## Project Coordinator

Simone Barley-Greenfield, NOAA Coastal Management Fellow 2015-2017  
simone.barley-greenfield@des.nh.gov

### The project:

The Social Indicator Project is a two-year effort to establish a process to integrate social indicators into existing measures of health in New Hampshire's coastal watersheds. NOAA defines social indicators as numerical measures that describe the well-being of individuals or communities. They are used to describe and evaluate community well-being in terms of social, economic, and psychological welfare. The overall goal is to explore human wellbeing from an ecological perspective and incorporate this perspective into management decisions. This project is fundamental to understanding and linking social and behavioral data to regional environmental indicators so managers and stakeholders can collaborate effectively to protect coastal ecosystems and sustain high local quality of life. PREP will debut three preliminary social indicators in the 2018 State of Our Estuaries Report alongside the existing ecological indicators.

### The need:

New Hampshire's 1000 square mile coastal zone is showing signs of stress in its water systems. This stress stems from population increases and development, as well as intensifying weather events coupled with land use policies inadequate to manage impacts of anthropogenic and natural stressors. To effectively manage this complex social ecological system, the management community must expand current monitoring efforts. Tracking ecological data only tells half the story; collecting social data sheds light on how people engage coastal ecosystems and highlights values crucial for affecting behavior change.

PREP and its Technical Advisory Committee have provided the greater Piscataqua Region watershed with data regarding water quality and overall environmental health since its inception in 1995. These data are released in the State of Our Estuaries Report every five years. In previous reports, monitoring efforts have been primarily focused on indicators measurable by quantitative, ecological data collection. To better reach communities and partners involved in implementing solutions, an ongoing understanding of their values, knowledge, awareness, and concerns regarding these ecosystems is needed. Analyzing social data will provide this insight.

Timeline	Project Components
Phase 1 SEPT 2015 – DEC 2015	<ul style="list-style-type: none"> <li>Interview regional stakeholders to gain an understanding of how local communities use and value the watershed and its resources.</li> <li>Conduct concurrent literature review on both social indicator science and social ecological science methodology in New Hampshire and nation-wide.</li> </ul>
Phase 2 JAN 2016 – SEPT 2016	<ul style="list-style-type: none"> <li>Identify, collate, and analyze existing, reliable data with relevance to the uses, values, and concerns expressed by stakeholders in Phase 1.</li> </ul>
Phase 3 JUN 2016 – SEPT 2016	<ul style="list-style-type: none"> <li>Work with Advisory Committee to rank indicators identified in Phase 2 by robustness of data and relevance to both social and ecological priorities.</li> </ul>
Phase 4 DEC 2016 – JAN 2017	<ul style="list-style-type: none"> <li>Narrow list down to 8 – 10 robust indicators using criteria and input from the Advisory Committee.</li> </ul>
Phase 5 MAR 2017 – APR 2017	<ul style="list-style-type: none"> <li>The project team and Advisory Committee will make the final selection of 3 – 4 indicators.</li> </ul>
Phase 6 APR 2017 – JUN 2017	<ul style="list-style-type: none"> <li>Draft the content and narratives for each indicator to be published in the SOOE in December 2017.</li> </ul>
Phase 7 APR 2017 – AUG 2017	<ul style="list-style-type: none"> <li>Draft separate project report and establish future directions for the PREP social data program to be published in technical data report.</li> </ul>

