

The Social Indicator Project

Integrating social science into ecosystem management for New Hampshire's estuaries

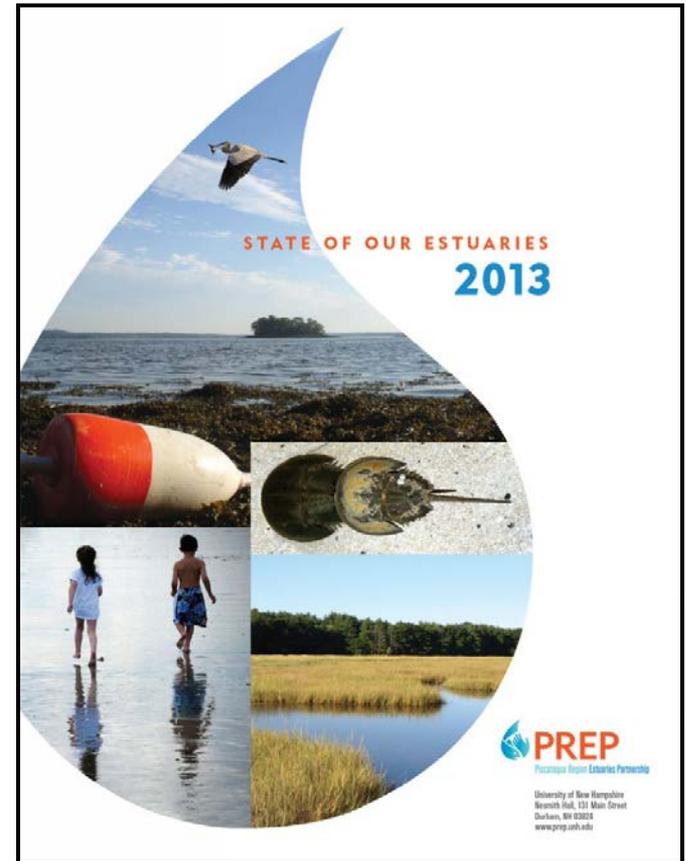
Simone Barley-Greenfield

New Hampshire Coastal Management Fellow 2015-2017



Project Framework

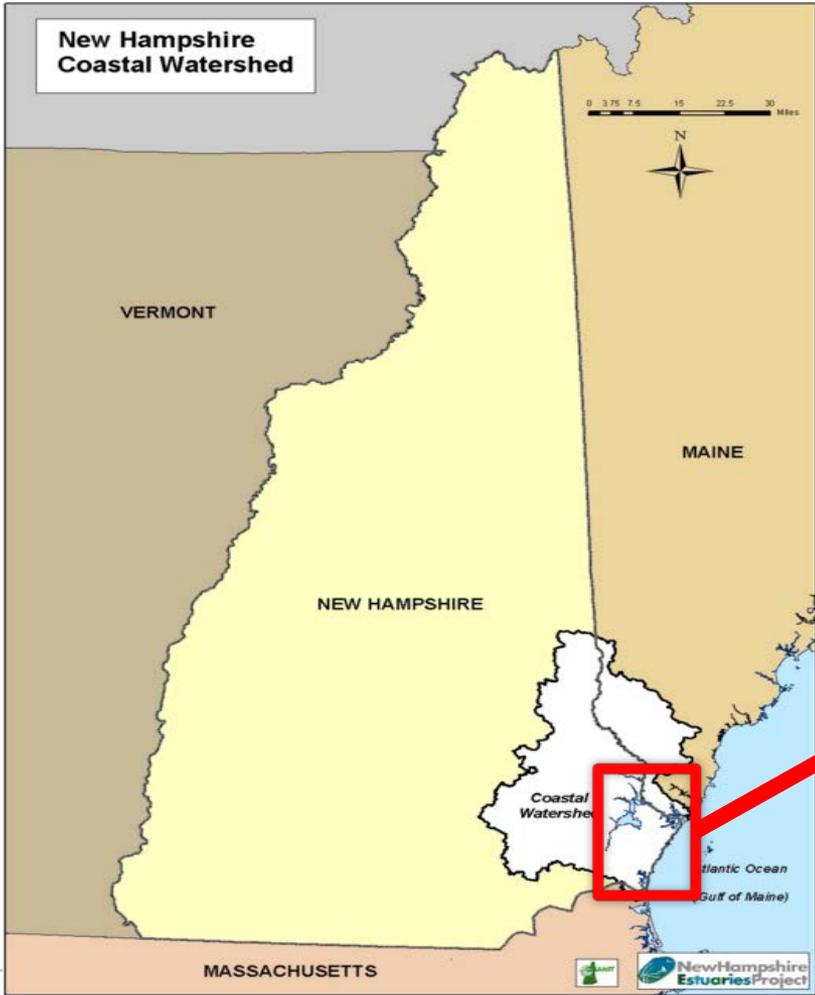
- 2 year fellowship
- Pre-existing project proposal
- My job to bring it to life
- 5 months in!
- Work will be published in 2017



Roadmap

- Why this project?
- What are social indicators?
- How can social indicator data help coastal New Hampshire?
- What progress has been made so far?

Welcome to the Piscataqua Region Watershed



Issues facing the coastal watershed

- Ecological
 - Increased nutrient levels
 - Declining eelgrass and oysters
 - Low dissolved oxygen
 - Decreased water clarity
- Political
 - More stringent federal regulations on local storm and wastewater management
- Social
 - Increasing population
 - Rapidly increasing development



The human element



Social Indicators

- Measure well-being of individuals or communities
- Tell us how people live and how they feel about their lives
- To work with people, you have to understand them!

Development of Social Indicators of Fishing Community Vulnerability and Resilience in the U.S. Southeast and Northeast Regions

Michael Jepson and Lisa L. Colburn



U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

NOAA Technical Memorandum NMFS-F/SPO-129
April 2013

The social side of ecological indicators

- Social indicators are a broad concept
- My project targets social indicators that link back to ecosystems
- We want indicators that speak to the human dimensions of a healthy watershed

ENVIRONMENTAL INDICATORS	
Impervious Surfaces	10
Nutrient Load	12
Nutrient Concentration	14
Microalgae (Phytoplankton) and Macroalgae	16
Dissolved Oxygen	18
Eelgrass	20
Sediment Concentrations	22
Bacteria	23
Shellfish Harvest Opportunities	24
Beach Closures	26
Toxic Contaminants	28
Oysters	30
Clams	32
Migratory Fish	34
Salt Marsh Restoration	35
Conservation Land (General)	36
Conservation Land (Priority)	38
Oyster Restoration	40
Eelgrass Restoration	41
Migratory Fish Restoration	42

Aquaculture as a social indicator for New Hampshire



Maryland Seafood

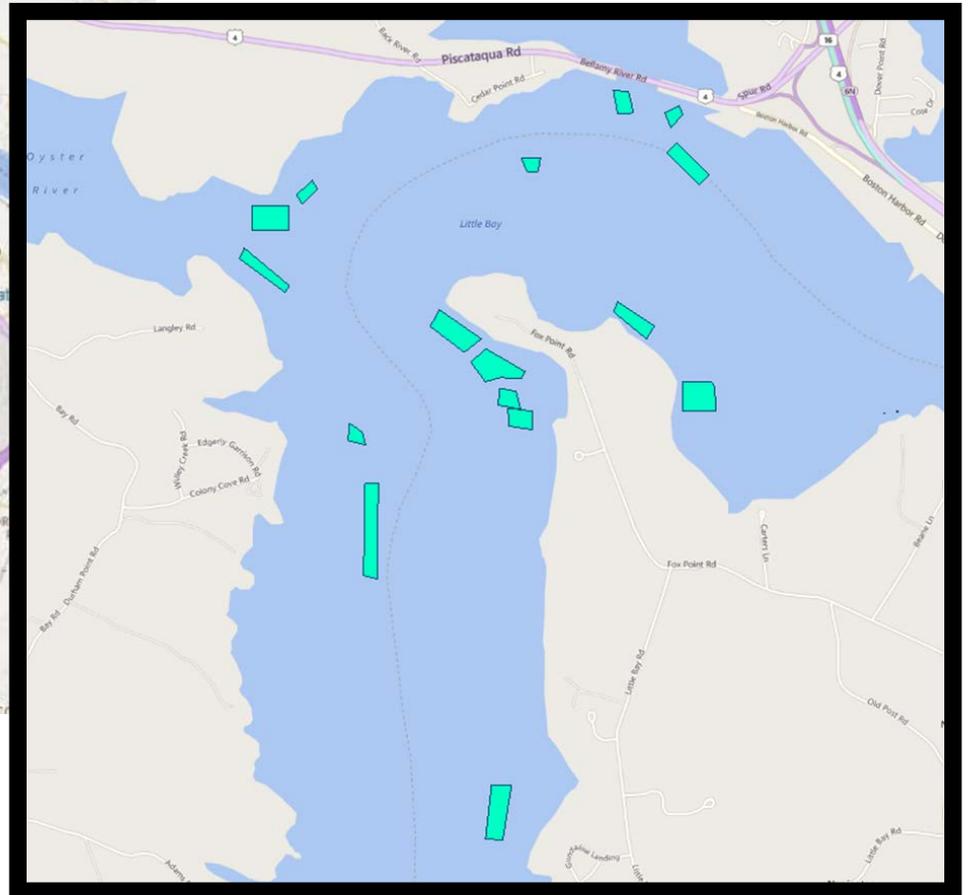
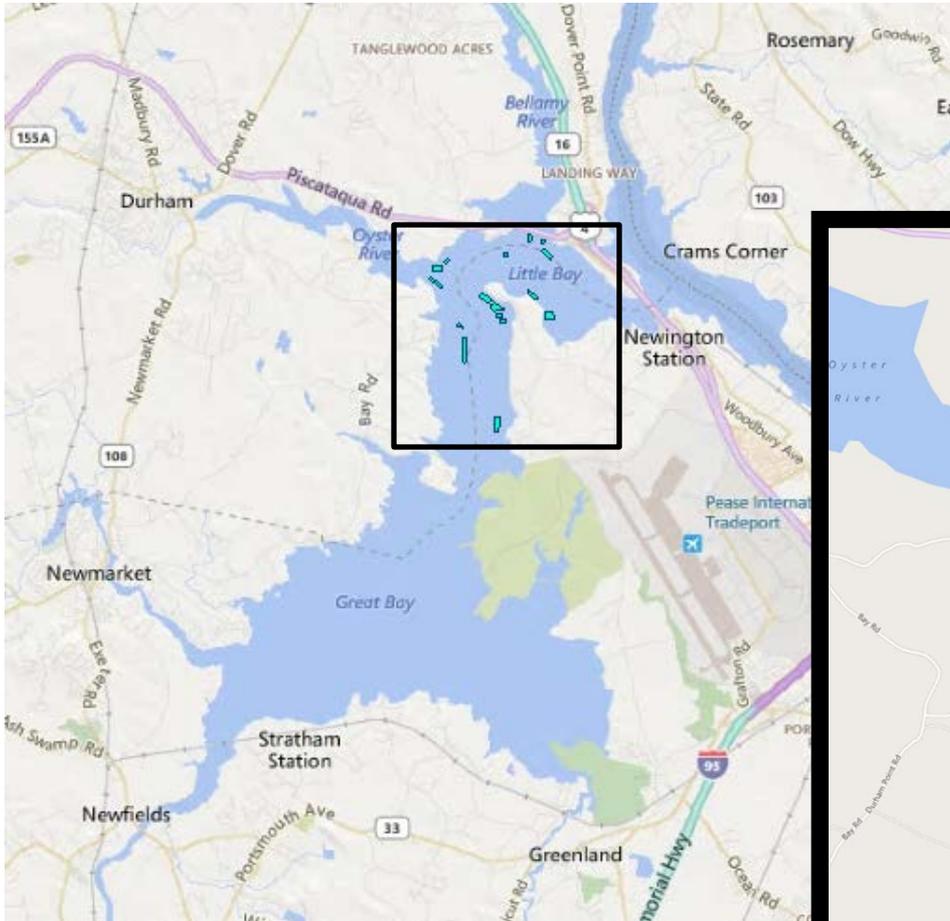
Socially beneficial to watershed residents



Courtesy NHPR

Ecologically beneficial to the watershed

Aquaculture Sites in New Hampshire



Oysters in the watershed

- 2 farms established in 2007
- 16 farm in operation today
- 207, 024 oysters sold
- 46.9 acres used
- Detailed data on harvests, sales, and local circulation available starting in 2015



Moving forward



Other data trails

- Conservation land
 - Access to open space
- Outdoor recreation
 - Participation
 - Economics
- Stewardship activities
 - Green behavior
 - Volunteer hours

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