Session: The Saco Watershed Collaborative – Strategies for Sustainability in Southern

Maine Sustainability
& Water Conference

March 28, 2019
Augusta Civic Center

SPEAKER

umaine edu/mitchell center/

Maine's Largest Watershed

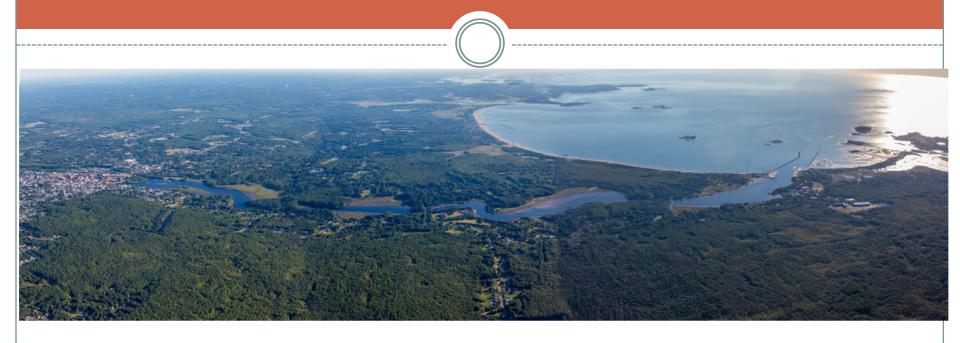
Maine Water and Sustainability Conference March 28, 2019 Augusta, Maine



Moderator, Robyn Saunders, Attaining Sustainable Solutions Christine Feurt & Emily Greene, UNE and The Wells Reserve James Innes, White Mountains National Forest Richard Knowlton, Maine Water Company Dalyn Houser, Saco River Corridor Commission

Using Sustainability Science to Build the Saco Watershed Collaborative

Maine Water and Sustainability Conference March 28, 2019 Augusta, Maine



Christine Feurt Ph.D. & Emily Greene
Department of Environmental Studies, University of New England
Coastal Training Program, Wells National Estuarine Research Reserve
cfeurt@une.edu egreene@une.edu

Collaborative Learning to build watershed partnerships

2002-2007

Sustainability Science to Link Social and Ecological Systems

2009 - 2015

Stakeholder Engagement to Develop the Saco Watershed Collaborative

2016 - 2019



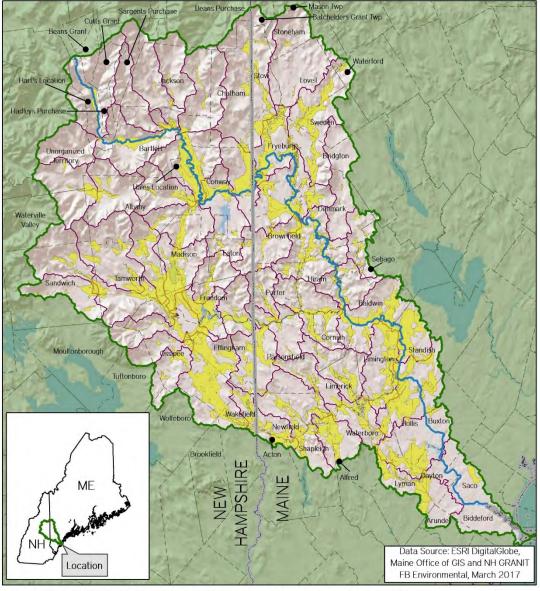
UNIVERSITY OF NEW ENGLAND

College of Arts and Sciences



The Saco Watershed- a living laboratory

Applying the <u>Collaborative Learning Approach</u> to accomplish the goals of <u>Sustainability Science</u>



SACO RIVER WATERSHED: Aquifer Map DRAFT

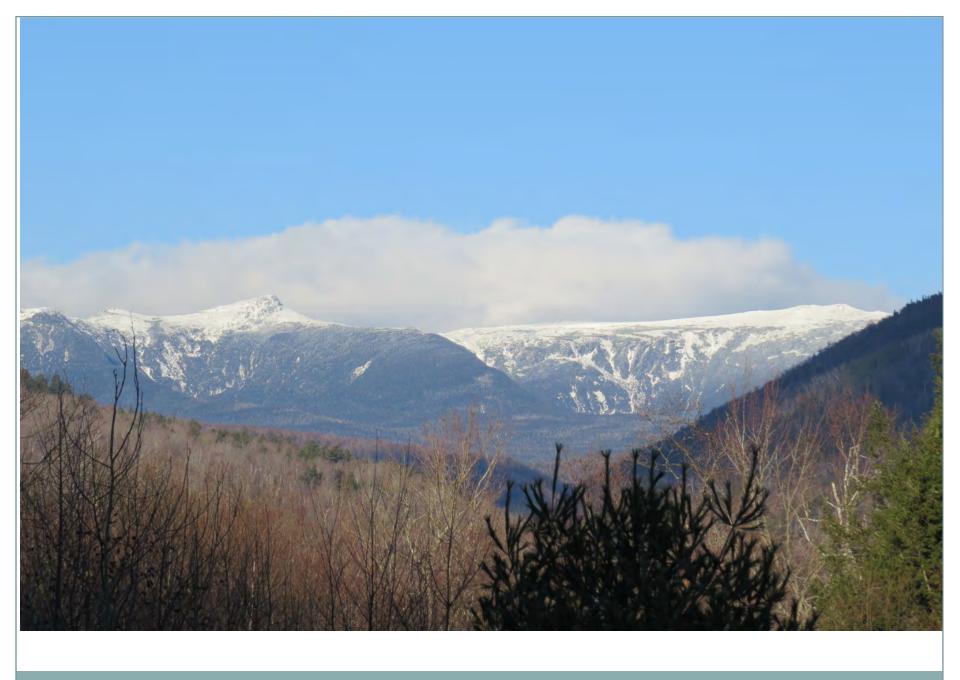












Sustaining Quality of Place and Ecosystem Health in the Saco River Estuary

Maine Sustainability Solutions Initiative 2009 - 2015







Collaborative Learning

- To facilitate interdisciplinary team science
- To connect researchers and stakeholders in dialogues to improve environmental issues and to understand pathways for science to management

Sustainability Science in the Saco Watershed

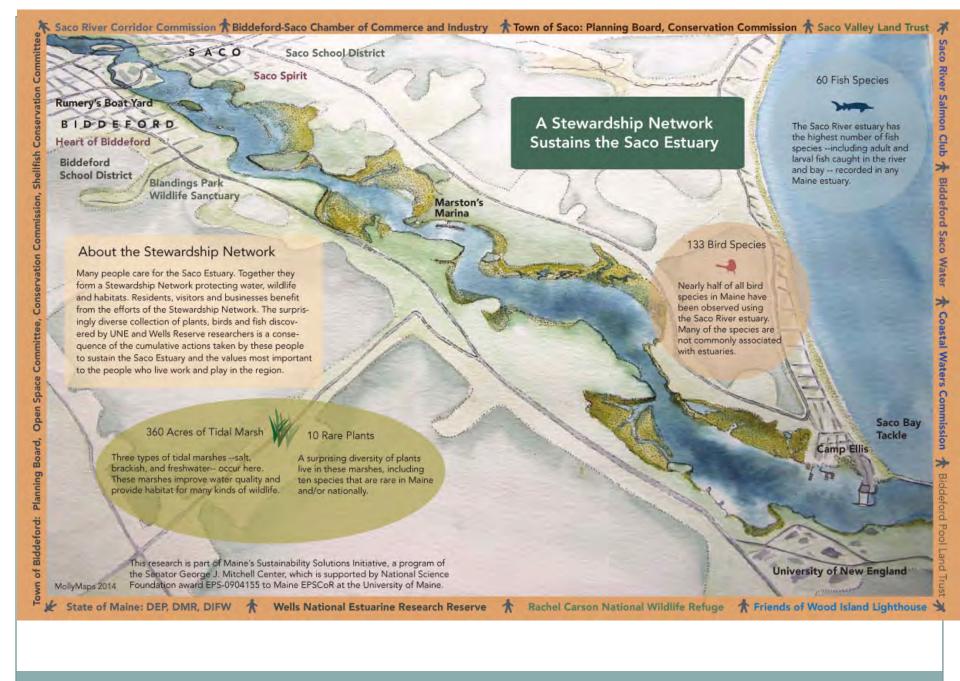
- 1. Knowledge is created collaboratively
- 2. Considers linked social-ecological systems (SES)
- 3. Motivated by a sense of urgency
- 4. Engages non-scientists and local knowledge
- 5. Integrates natural and social science
- 6. Cares about knowledge to action

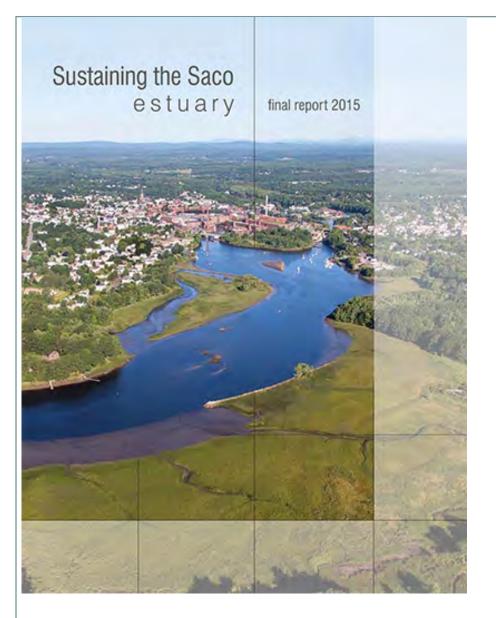


Kates R W PNAS 2011;108:19449-19450

Collaborative Learning Engages The Kaleidoscope of Expertise Sharing diverse perspective on watershed management







•Sustaining the Saco Estuary Final Report

- Chapter 1 <u>Introduction</u>
- Chapter 2 Stewardship
- Chapter 3 Plants
- Chapter 4 <u>Invertebrates</u>
- Chapter 5 <u>Fish</u>
- Chapter 6 Birds
- Chapter 7 Foodweb
- Chapter 8 Landuse
- Chapter 9 <u>Sea Level Rise</u>
- Chapter 10 Water Quality
- <u>Saco Watercolor Map</u>

https://www.wellsreserve.org/blog/saco-river-estuary-project http://www.une.edu/sacoriver/events/saco-science-symposium

The Saco Watershed Collaborative

2016-2019



The Collective Impact Approach

Brings together a variety of stakeholders to tackle complex issues that no single policy, government department, organization, or program can independently solve.

Google: Sanford Review Collective Impact

https://ssir.org/articles/entry/collective_impact

Building the Saco Watershed Collaborative Using the Collective Impact Approach



Participants in the Saco Watershed Collaborative Steering Committee (2017 - 2019)

- City of Biddeford & City of Saco
- Cumberland & York County Soil and Water Conservation District
- FB Environmental
- Maine Center for Disease Control Drinking Water Program
- Maine DEP
- Maine Farmland Trust
- Maine Water Company
- New Hampshire Department of Environmental Services
- North Conway, NH Water Precinct
- Poland Spring/Nestle Waters
- Saco River Corridor Commission
- Senator Angus King's Office
- University of New England
- US Environmental Protection Agency
- US Forest Service/White Mountains National Forest
- USDA Natural Resources Conservation Service, Maine & NH
- Wells National Estuarine Research Reserve



Events build partnerships to form the Collaborative and develop the Saco Watershed Collaborative Action Plan

- 1. Conference Calls
- 2. Facilitated Team Communications/Basecamp archives
- 3. Quarterly Face to Face/Steering Committee Meetings
- 4. Field Based Workshops
- 5. Annual Conference
- 6. Development of Action Plan a living document
- 7. Professional, peer to peer and community outreach
- 8. Members share with their networks & continue existing professional practice



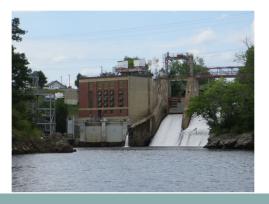
2017/2018 Saco Watershed Collaborative Field Trips Develop shared understanding of issues



- Discover the Headwaters Success Stories Tour
- Saco Fish and Dam Passage Tour
- Saco Estuary Boat Tours
- Poland Springs Tours
- Natural Resources Conservation Service Tour
- Maine Water Company Tours
- The Ecology School
- Massabesic Experimental Forest Tour
- Silver Maple Floodplain Forest Trek
- Saco River Paddle
- White Mountains National Forest Headwaters Tours









Saco Estuary Boat Trips





The Massabesic Experimental Forest US Forest Service





Saco Watershed Silver Maple Floodplain Forests



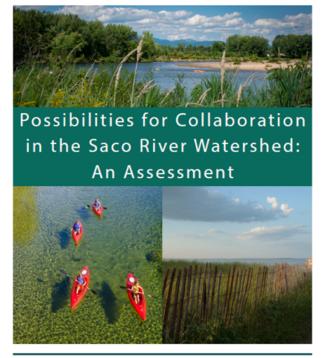




White Mountain National Forest



Collaborative Assessment of the Saco Watershed 52 Interviewees from 30 Organizations



Alice Elliott • Sophia K. Paul • J. Garrett Powers • Kaitlyn Pritchard

University of Michigan School for Environment and Sustainability

Prepared for the Wells National Estuarine Research Reserve and residents of the Saco River watershed

March 2018



Table 9.1 What Interviewees Value about the Saco River Watershed

Value	Percent Interviewees Mentioning
Recreation	58%
Clean water	42%
Biophysical attributes	42%
Aesthetic qualities	38%
High quality water for drinking and irrigation	33%

Collaborative Assessment Project Objectives

Identify:

- 1. Major issues confronting the watershed.
- 2. Individuals and parties active in the watershed.
- 3. Values and visions, perspectives and level of interest in developing a Collaborative.
- 4. Transferable lessons from other collaboratives that might apply to the Saco Watershed Collaborative.





Goals of the Saco Watershed Collaborative Presented in the Action Plan

- Protect water quality, public health and the ecosystems of the Saco Watershed through coordinated land and water conservation, education, research, planning, and management.
- Develop and sustain mutually beneficial partnerships to accomplish shared goals for clean water.

(March, 2019)

The activities of the Saco Watershed Collaborative are organized within four <u>Action Strategies</u>:

- 1. ENGAGEMENT: Engage and inspire governments, organizations and citizens to take action to sustain water in the Saco Watershed.
- 2. WATER QUALITY: Protect water quality through pollution prevention and restoration of degraded waters in the Saco Watershed.
- 3. CONSERVATION; Support land conservation and stewardship to protect water quality in the Saco Watershed.
- 4. BMPs: Promote and enforce Low Impact Development (LID) strategies, stormwater and wastewater best management practices (BMPs), and land use development that protects water.

Building the Saco Watershed Collaborative for Collective Impact

Action Plan sets common agenda

Action Plan proposes shared measurement 2019 goal

Field Trips & Meetings

UNE: Basecamp; emails, social media

UNE is Backbone Organization with Steering Committee



Connecting with the Saco Watershed Collaborative

- Basecamp: Access by invite
- <u>Twitter</u>
- Facebook
- Saco Watershed Story Map
- <u>Southern Maine Planning and Development Commission: Saco River Drinking Water Resiliency Project</u>
- Saco Watershed Collaborative
- Saco Watershed Collaborative Action Plan
- University of Michigan SEAS Collaborative Assessment
- Digital UNE and Research Gate (Feurt)
- Coming in 2019...UNE Saco Watershed Collaborative website







Acknowledging support and collaboration

Project Manager: Robyn Saunders robyn@attaining.me
Program Manager: Christine Feurt cfeurt@une.edu
Outreach Coordinator Emily Greene egreene@une.edu

