Green infrastructure for a sustainable New Hampshire

Project Location

Great Bay National Estuarine Research Reserve, New Hampshire

Project Lead

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Targeted End Users and Products

- *Project final report*
- *Case studies of green infrastructure projects*
- *Fact sheets*
- *Community approach overview*

Project Partners

- *Great Bay Reserve*
- *Antioch University New England*
- *City of Portsmouth*
- *City of Rochester*
- *Geosyntec Consultants*
- *New Hampshire Coastal Adaptation Workgroup*
- *Seacoast Stormwater Coalition*
- *Strafford Regional Planning Commission*
- *Southeast Watershed Alliance*
- *Rockingham Planning Commission*
- *Town of Exeter*
- *Town of Brentwood*
- *Town Stratham*
- *Town of Durham*
- *University of New Hampshire Stormwater Center*

About the Science Collaborative
The National Estuarine Research Reserve System's Science Collaborative supports collaborative research that addresses coastal management problems important to the reserves. Learn more at *www.nerrs.noaa.gov.*

Overview

Rivers and streams flow across the boundaries of 52 communities before reaching New Hampshire's Great Bay. As they travel through each community, they collect pollution from stormwater runoff and deliver it to the bay, where its impact is already evident in declining fisheries and the increase of invasive algae. With development on the rise, the regional climate in flux, and regulatory pressure to address water quality mounting, more effective stormwater management has become a top priority for decision makers. In response, the Great Bay reserve worked with the University of New Hampshire Stormwater Center and other partners to help New Hampshire communities adopt "green infrastructure" techniques that—rather than "piping and ponding"—mimic the natural water cycle encourage by soaking into the ground where it falls, where it can be filtered of pollutants and recharge the aquifer.

Project Benefits

- Provided six communities with technical assistance to implement green infrastructure projects, such as rain barrels, rain gardens, and bioretention systems that are serving as models in New Hampshire and beyond.
- Developed the "Complete Community Approach" to assess community progress toward effective stormwater management.
- Shared the project approach and results with reserves from South Carolina and Ohio in a workshop designed to advance green Infrastructure.

Project Approach

The Great Bay reserve worked with the University of New Hampshire Stormwater Center, Southeast Watershed Alliance, Geosyntec, Rockingham County Planning Commission, and Antioch University to use the principles of public process to engage communities.

- Public Engagement: Representatives participated in an advisory board to guide the project. The project's advisory board coined the idea of the "Complete Community Approach" to measure progress and rank communities on their stormwater management efforts.
- Mentoring: The team was able to identify "mentor" communities to implement high-visibility green stormwater infrastructure projects that could demonstrate the science and effectiveness of these practices for other cities and towns.
- Technical Assistance: The team supported projects in six communities: installed rain barrels, rain gardens, snow dump treatment, and bioretention systems; launched education programs; strengthened