

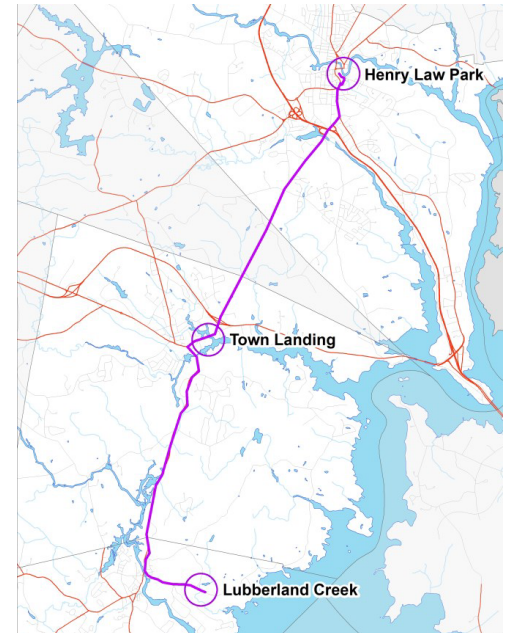


Resilient Shoreline Tour, 1 - 4:30 pm, Wednesday, June 22, 2022

Overview: During this tour, we visited three Great Bay shoreline sites in Dover, Durham and Newmarket. At each site, we visualized the impacts of tidal and freshwater flooding and learned about different strategies that towns are using to ensure their shorelines remain safe, resilient and vibrant.

Objectives

- Increase awareness of risks and impacts associated with flooding along our Great Bay tidal shorelines.
- Share strategies for making our shorelines more resilient, including strategies for built and natural infrastructure and community engagement.
- Foster connections between town staff and boards, consulting engineers and agencies interested in advancing shoreline resilience.
- Encourage Great Bay community participation in the Rising Tides photo contest



Agenda

<p>1 - 1:50 pm: Cocheco River Paddle Dock & Redevelopment Area, Dover</p> <ul style="list-style-type: none"> ● Visualizing flooding - Kyle Pimental, SRPC ● Stormwater management - Gretchen Young, City of Dover ● Waterfront revitalization - Steve Bird, City of Dover 	<p>Address: 110 River Street, Dover</p> <p>Parking: Free parking in the dirt lot at the end of River Street (see map below.)</p>
<p>2:10 - 3 pm: Town Landing, Durham</p> <ul style="list-style-type: none"> ● Visualizing flooding - Kyle Pimental, SRPC ● Climate remembrance project - Lisa Wise, NH Sea Grant ● Community oyster garden - Kim Arlen and Briana Group, TNC ● Mill pond dam removal - April Talon, Town of Durham, and Pete Walker, VHB 	<p>Address: 13 Old Landing Road, Durham</p> <p>Parking: Free parking at waterfront park</p>
<p>3:20 - 4 pm: Lubberland Creek, Newmarket</p> <ul style="list-style-type: none"> ● Salt marsh resilience - Rachel Stevens, GBNERR ● Culvert replacement / tidal flow restoration - Joanne Glode, TNC 	<p>Address: 112 Bay Road, Newmarket</p> <p>Parking: At Nature Conservancy office</p>
<p>4:30: Happy Hour at Garrison City Beerworks</p>	<p>Address: 455 Central Ave, Dover</p>

Resources and References

Understanding flood risks

[NH Coastal Flood Risk Summary](#) - This two-part publication summarizes the science relevant to coastal flood risks in NH, including updated projections of relative sea-level rise, coastal storms, groundwater rise, precipitation and freshwater flooding. The second part includes guiding principles and a step-by-step approach for incorporating current flood risk projections into planning, regulatory and site-specific projects.

Sea level rise impacts on groundwater levels - Studies were recently completed in Durham (see: [2022 Report](#)) and Newmarket (See: [2018 Report](#)) to assess how rising seas are likely to impact groundwater and identify vulnerable assets.

[NH Sea Level Rise Mapper](#) - This mapping tool provides easy access to future coastal flooding scenarios, including sea level rise, storm surge, groundwater rise, and marsh migration.

[Climate Risks in the Seacoast](#) - In 2017, the two Regional Planning Commissions completed vulnerability assessments that mapped and quantified potential sea-level rise and coastal storm surge impacts to transportation systems, critical facilities and infrastructure, and natural resources for ten tidally influenced municipalities surrounding Great Bay.

Shoreline resilience strategies - outreach and engagement

[Rising Tides Photo Contest](#) - Each year, the NH Coastal Adaptation Workgroup invites community members photograph extreme high tides during its annual photo contest in order to raise awareness of New Hampshire's rising tides. Photographing high tide flooding gives us a glimpse of what daily water levels could be like in the future.

[Durham Climate Remembrance](#) - This unique public art project aims to strengthen the public awareness of climate change by using site-specific markers of projected climate impacts to induce a personal and thought-provoking response.

[Dover High-Water Mark Project](#) - A youth art contest sparked community conversations about climate impacts and adaptation. The 13-year-old winner developed a mural that is on display outside the NH Children's Museum in Dover.

Shoreline resilience strategies - natural and built infrastructure

[Cocheco Waterfront Redevelopment](#) - This site explains the vision, research and planning process guiding the redevelopment of Dover's waterfront.

Climate and municipal planning - Climate vulnerabilities and resilience strategies for each town are outlined in their master plans, see: [Dover plan](#) and [climate resources](#); [Sustainable Durham](#) and [Newmarket water resource chapter](#).

[Oyster River Dam at Mill Pond](#) - This page includes background information about the Mill Pond Dam, which residents voted to remove in a town-wide election in March of 2022.

[Oyster Conservation and the Community Oyster Garden](#) - In partnership with the Nature Conservancy, Durham established a community oyster garden to improve water quality and engage residents in oyster restoration.

[Great Bay Living Shoreline Project](#) - During this design and training program, teams of engineers, landscape architects, and wetland scientists developed living shoreline designs for four sites around Great Bay. The project illustrates a range of nature-based approaches for stabilizing shorelines.

[Living Shoreline Suitability Model](#) - This spatial analysis identifies sites (at the finest resolution possible given available data) that may be suitable for specific living shoreline approaches in order to address erosion issues along New Hampshire's tidal shoreline.

[Resilient Tidal Crossing Assessment and Prioritization](#) - This NH DES report explains how tidal crossings have been evaluated to help prioritize funding for projects that can improve tidal flows, for example by expanding culverts that run under roads.

[Lubberland Creek Culvert Project](#) - This article tells the story of how and why a team of partners replaced the culvert that goes under Bay Road in Newmarket.

Funding opportunities:

- Applications for the [NHDES Culvert Flood Risk Assistance Grant Program](#) are due July 1. This grant program supports the replacement of culverts at freshwater road-stream crossings that are highly susceptible to flooding.
- [Clean Water](#) and [Drinking Water State Revolving Funds](#) - Low-cost financial assistance to help communities protect water quality and improve public water systems.
- [NHDES Coastal Resilience Grant Program](#) - Grants for coastal community and habitat resilience projects in NH.
- [NFWF Coastal Resilience Fund](#) - Grants to restore habitats and strengthen natural infrastructure.
- [FEMA Hazard Mitigation Fund](#) - Federal funding for actions that reduce disaster losses.

Tour Speakers and Coordinators

Name	Organization	Email
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Rachel Stevens	Great Bay National Estuarine Research Reserve	rachel.a.stevens@wildlife.nh.gov
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Tour Participants

Name	Organization	Email	City	State
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