



WHAT IS A TIDAL CROSSING

A tidal crossing is a culvert or bridge associated with a roadway that conveys two-way tidal flow.



WHY CARE ABOUT TIDAL CROSSINGS

When properly designed and maintained, tidal crossings can balance the needs of people and nature by:

- Providing a functional, reliable and safe transportation network that supports the continuous flow of people, goods and services across coastal communities.
- Avoiding and minimizing current and future flood risk.
- Allowing adequate tidal flow to maintain healthy tidal marshes.



PROJECT BENEFITS

- Provide road agents with site-specific data to inform tidal crossing repair and replacement decisions.
- Identify priority restoration projects.
- Contribute to strategic replacement of tidal crossings to improve public safety, infrastructure resilience and habitat restoration.
- Develop improved understanding of tidal crossings as they relate to the human and natural environment.



HOW TO ACCESS OUR RESULTS

Tidal crossing data will be available on the New Hampshire Coastal Viewer and Statewide Asset Data Exchange System (SADES) by spring 2019.

www.nhcoastalviewer.org

www.nhsades.com



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RESILIENT TIDAL CROSSINGS

New Hampshire



This project is funded, in part, by the NOAA Office for Coastal Management under the Coastal Zone Management Act in conjunction with the New Hampshire Department of Environmental Services Coastal Program.

The *Resilient Tidal Crossings Project* enables the New Hampshire Department of Environmental Services (NHDES) and its partners at The Nature Conservancy (TNC), UNH Technology Center (T²), and NH GRANIT to:

- Conduct field assessments of the 120 tidal crossings in the New Hampshire Seacoast using the *New Hampshire Tidal Crossing Assessment Protocol*.
- Collect and analyze data to better understand site-specific conditions at each tidal crossing.
- Prioritize tidal crossings based on ecosystem, hazard mitigation and climate resiliency criteria.
- Catalog tidal crossing data in New Hampshire's asset data management system.

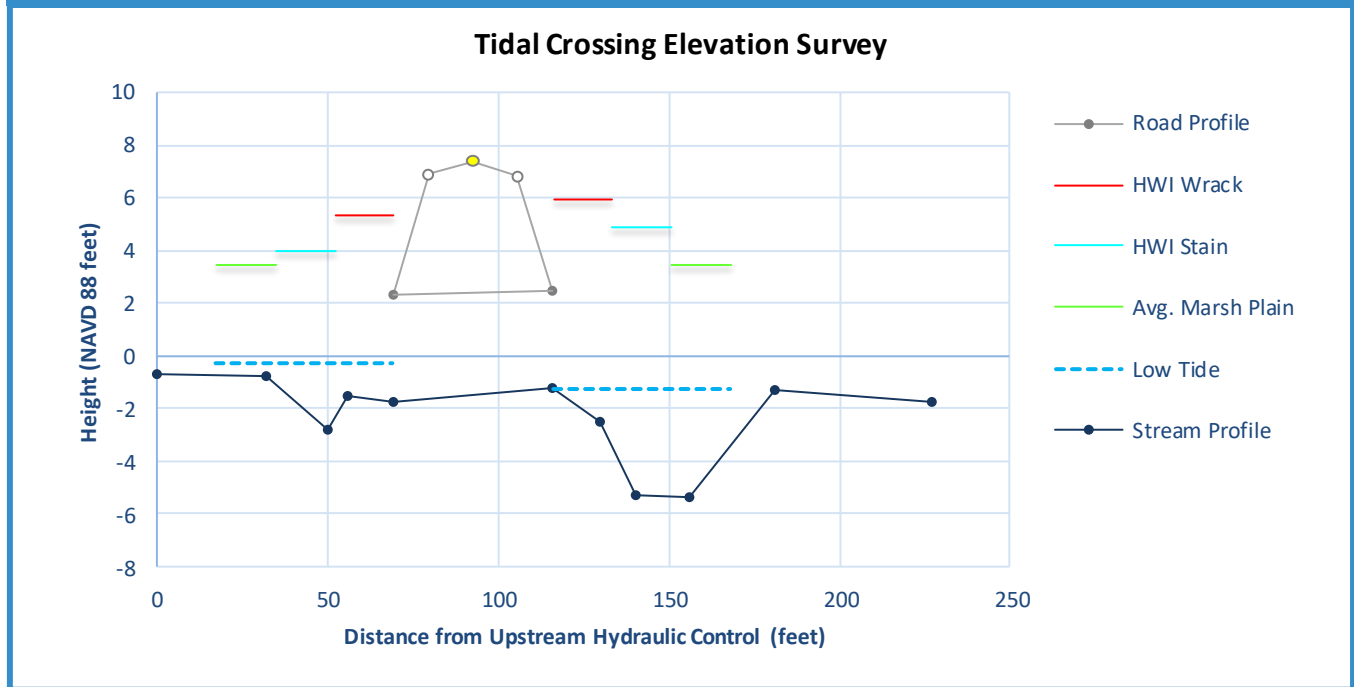


NEW HAMPSHIRE TIDAL CROSSING ASSESSMENT PROTOCOL

The *New Hampshire Tidal Crossing Assessment Protocol* will help us understand:

- Crossing condition to address public safety and asset management.
- Crossing effect on aquatic organism passage and salt marsh vegetation.
- Crossing restriction of tidal flow in and out of the salt marsh.
- Potential adverse upstream impacts of restoring full tidal flow.
- Potential for salt marsh to move inland with sea level rise.
- Degree of flood risk to the roadway and crossing structure.

For more information, download the *New Hampshire Tidal Crossing Assessment Protocol* : <https://goo.gl/qtA97D>



Above: Example diagram of key elevation data collected using the *New Hampshire Tidal Crossing Assessment Protocol*, including elevations of the road surface, stream channel, culvert top and bottom, and high water indicators (HWI). Understanding the elevation of these attributes relative to sea level and the adjacent landscape can help determine whether the tidal crossing is compatible with transportation and environmental needs.