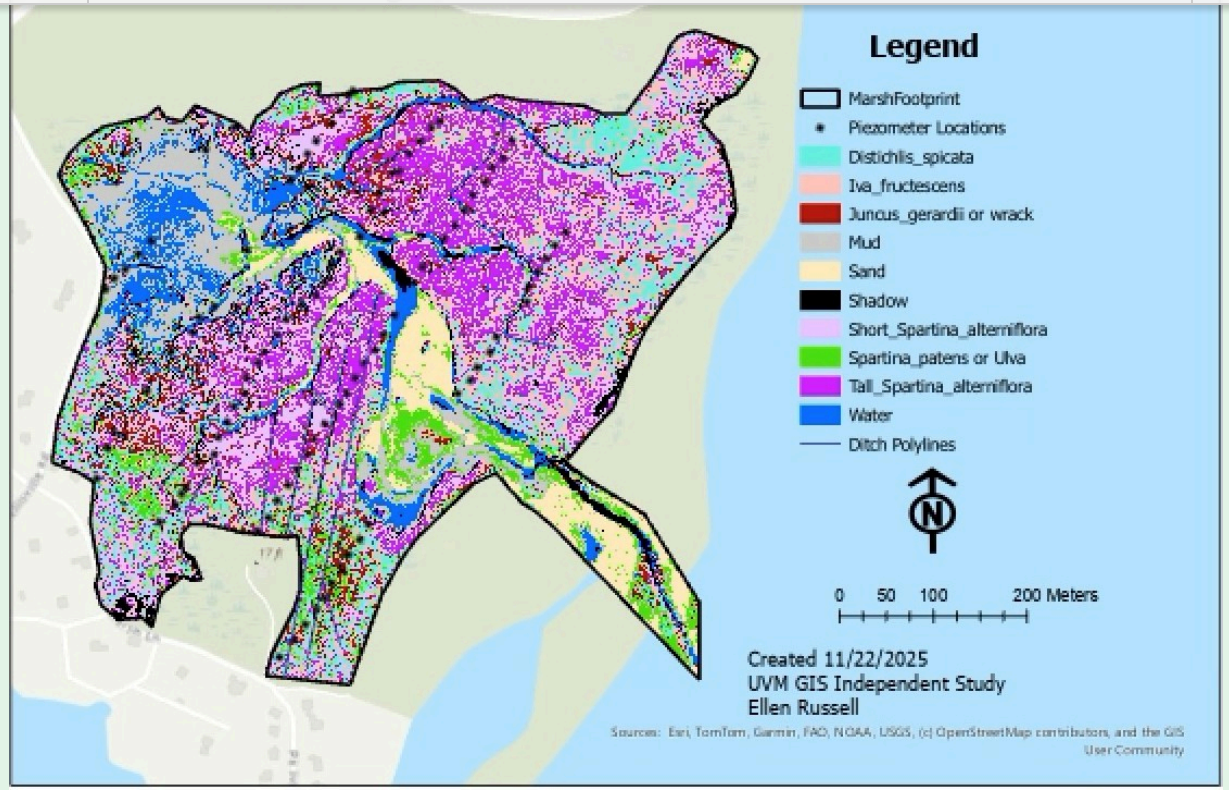
Understanding Natural Change

Winter 2026 Update

How Ellisville Marsh Has Changed Since 2008

Summary of "Ellisville Marsh Vegetation Change Analysis,"
by Dr. Ellen Russell, co-founder, board member, and scientific advisor.

This project was undertaken to decipher a 2024 remotely sensed image using Geographical Information System (GIS) software and to compare its land cover to that from similar historical images captured by the Friends of Ellisville Marsh in 2008, 2011, and 2018 (see figure below and full report). Thirteen years of sampling/on-the-ground data were used to verify GIS changes in species of plants, sand deposits, mudflat, and water coverage showing that in the future, GIS assessment of changes in cover classes will be a useful, and more detailed, method for describing marsh cover.



Each plant species occupies a certain elevation range in a salt marsh. Species that occupy lower elevations, by default, are those that are inundated most often and for the longest periods. It was determined that coverage of the species *Spartina alterniflora* (salt marsh cordgrass), has increased. *S. alterniflora* increases appear to be at the expense of areas formerly occupied by *Spartina patens* (salt meadow cord grass, found at higher elevations than *S. alterniflora*). The greater the coverage of *S. alterniflora* plants in a marsh, the greater the likelihood that this marsh is inundated frequently for longer hydroperiods and that the grasses are growing at a low elevation (see report for supporting literature). Areas of mudflat have also increased resulting from more frequent inundation of formerly vegetated areas. As sea levels continue to rise, marsh grasses such as *S. patens* that need less salty and less frequent inundation have no higher elevations to colonize in a land-locked marsh such as Ellisville Marsh. All is not lost, however, as opportunities for elevation/salt marsh gain are present and include:

- Sand coverage areas that are increasing steadily across years. Sand can trap finer sediment and become substrate for grass colonization.
- *Ulva* (sea lettuce) populations growing within the marsh and storm-provided wrack deposition will degrade to organic matter that will help keep pace with incremental rises in sea level.
- Noticeable areas of both saltwater and freshwater marsh vegetation have appeared oceanward of the dune system and there has been growth of S. alterniflora along the southern side channel.

For the full scientific paper, click here

January sunrise at Ellisville Marsh. Photo courtesy of Judy Quinn. (c) 2026.

Harlow Farmhouse - a New Friends Group?

A recent meeting with the MA Department of Conservation and Recreation (DCR) was well-attended and constructive. Five members of the Friends' board were present, demonstrating the high level of interest in this unique property located "in our own backyard." We learned that architectural plans have been created for the building's adaptive re-use but dismayed to hear that the state's estimated budget to complete the renovation is $1.8 million.

DCR's John Singleton has spent countless hours, often single-handedly, removing staghorn sumac and other plants that have run wild on the grounds for the past twenty or more years, restoring the picturesque view from the house to where the farm buildings once stood.

The Friends are working closely with other stakeholders to develop a long-term vision for this historic property and to find the best way to facilitate DCR's further progress. A strong showing of community support is needed. If you would like to be involved, or have ideas to share, please email Friends' member Nancy Mukundan at nancy.mukundan@gmail.com.

Winter sunset. Photo courtesy of Paula Marcoux. (c) 2025.

2026 Winterfest at North River

Celebrate the magic of winter at Mass Audubon's North River Wildlife Sanctuary in Marshfield with a full slate of indoor and outdoor family-friendly activities at Winterfest, taking place Saturday, February 7, from 2:30-6:30 pm. This special event features three hands-on sessions designed for fun and discovery. In each session, you can: meet live raptors from the Blue Hills Trailside Museum during a live animal show, help create a community art canvas, and join guided nature walks along the sanctuary trails. Warm up by the fire pit with s'mores, explore interactive touch tables, and discover the wonders of winter up close. The Friends and Mass Audubon are longtime partners, monitoring and protecting wildlife at Ellisville Marsh. For more information, visit: Winterfest at North River.

Want to understand the importance of Ellisville's offshore eelgrass bed?
CLICK HERE for an Ocean State Media report

New Plymouth Committee to Review Earth Removal Bylaw

Readers may recall that the Plymouth Stewardship Alliance, which includes several Friends' members and directors, proposed a warrant article for last fall's Town Meeting that would have restricted sand and gravel mining in Plymouth. An agreement was reached with the town that this article would be withdrawn in return for the town creating a committee to review the current earth removal bylaw with an eye toward closing existing loopholes. Friends' president Eric Cody is one of nine community members appointed to the new committee, which met for the first time on January 15. We will keep you apprised of progress toward combatting the scourge of large-scale sand mining here in America's hometown.

Red-breasted mergansers "arguing" (female on left). Photo by Geoff Kronik (c) 2020.

Passing of Two Longtime Members

The Friends have lost two members who made noteworthy contributions to the success of our organization. Geoff Kronik, who died last May, presented us with wonderful photos of waterbirds that graced our newsletters over the years. Jenn Herchen who, with her husband Steve, hosted our first summer intern in her home in 2015, died suddenly and unexpectedly in early January. Our deepest sympathies go out to both of their families for their losses.

The Friends of Ellisville Marsh welcome your feedback, questions, and comments.

Email the Friends' board

View email in browser

update your preferences or unsubscribe

INTUIT mailchimp