

# Goodwin Marsh Restoration Project

## Frequently Asked Questions



### Why does the marsh need to be restored?

The Goodwin Marsh supports wildlife, stores atmospheric carbon, filters runoff, and protects coastal communities from flooding and shoreline erosion. **However, historical alterations from farming and road building, combined with sea level rise, have compromised the health of the marsh.** The below image illustrates some of these historic changes and their impacts.

These alterations affect the flow of water (known as hydrology) in the marsh. Over time this leads to marsh sinking (called subsidence), open water expansion (called mega-pools), and vegetation loss. Today, coastal scientists, including those working at the Wells Reserve, are working to restore the health of salt marshes.

**Restoration improves marsh hydrology, which rebuilds lost elevation, increases vegetation and wildlife habitat, and enhances the ability of the marsh to protect the land from flooding and erosion.**



### Why is it called "Goodwin Marsh"?

The Goodwin family stewarded the marsh and surrounding property for five generations. When the current landowners, Susan O'Connell and Charles Bashaw worked with the Wells Reserve to place a [conservation easement](#) on 18.6 acres of their marsh and upland property in May 2025, they chose to name the marsh in honor of that legacy. This conservation easement now protects the property from further development and will allow the Wells Reserve to restore and monitor the property in the long term.

### How will the marsh be restored?

For this project, the Wells Reserve is working with Northeast Wetland Restoration (NWR)\*, a pioneering restoration design firm located in Berwick, Maine. The design focuses on controlling the way water flows on and off the marsh. Restoration begins by digging shallow channels, **Runnels**, that direct standing water off the marsh. The sediment that is excavated during runnel creation is then used to build low-elevation **Micro-topography Mounds**, which promote vegetation regrowth and may provide less vulnerable nest sites for the Salt Marsh Sparrow. Finally, **Ditch Remediation** is used to preserve marsh peat and direct tidal flow through a single channel network by staking braided salt marsh grasses in the bottom of select ditches where they can trap sediment, encourage plant growth, and heal the ditches from the bottom up.

### Is there a connection between the Goodwin Marsh restoration and the Drakes Island Bridge replacement?

In 2024, the Town of Wells worked with the Wells Reserve to secure a federal grant from NOAA for over **\$2.8 million in federal grant money** to upgrade the failing Drakes Island Road Bridge. Part of that funding was used to purchase the Goodwin Marsh conservation easement and restore the salt marsh prior to the bridge replacement. These activities are all part of the same project to make this area of Wells more resilient to sea level rise.

Drakes Island Road is the only route to Drakes Island so the bridge is a critical community asset. But the current bridge is undersized, making it vulnerable to flooding and restricting tidal flow, which places stress on the marsh. The new bridge will be large enough to accommodate a 100-year storm tide, plus up to 3.9 ft of sea level rise, which is projected over the bridge's expected lifespan. **Restoring the marsh prior to fixing the bridge will ensure the marsh is prepared to accommodate higher water levels.**

### Where will restoration activities take place?

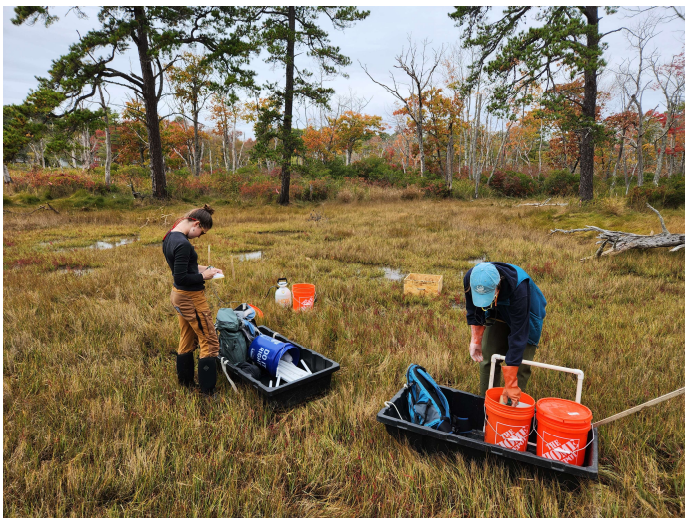
\*The restoration is occurring on the north side of Drakes Island Bridge in select ditches and areas of standing water on the marsh. There is a separate marsh restoration project on the south side of the road that is being led by Rachel Carson National Wildlife Refuge.

## How can we tell if the restoration is improving marsh health?

The Wells Reserve will collect data over a 5-year period after restoration to monitor vegetation, water levels, and other marsh conditions. Additional management actions may be taken as necessary if the project is not performing as expected.

## What will we see on the marsh during restoration work?

During construction, you may see small crews on the marsh using hand tools and lightweight equipment. A small excavator will also be used for creating runnels. Work will take place intermittently from March to June depending on weather and tide conditions. Following construction, Wells Reserve staff will be on the marsh every spring and summer to conduct monitoring. Temporary markers and monitoring equipment, including flags, wooden stakes, or PVC pipes, may also be visible.



*The WNERR team installing monitoring equipment, Fall 2025*

*\*Restoration techniques and the Goodwin Marsh restoration designs are courtesy of Geoff Wilson, Northeast Wetland Restoration. For more information, please visit the [Goodwin Marsh Restoration Design Report](#) on the Goodwin Marsh project page*

## What is the “end goal” of marsh restoration?

By restoring the marsh, we aim to **create conditions that will allow the marsh to be self-sustaining and more resilient to environmental changes**. The restoration will change the way water flows in and out of the marsh. This improved hydrology will create better growing conditions for marsh plants that trap sediment and build the marsh elevation to keep pace with sea level rise. Taking steps now will ensure the marsh can thrive for generations to come.

We don't know what the marsh was like before farming, and the character of the marsh has changed so much over the past 300 years that it is not possible to return it to what it was. Instead, we are focused on enhancing the marsh to allow it to respond to current and future coastal conditions.

## Is the Goodwin Marsh restoration part of the work happening on the south side of Drakes Island Road?

The two projects are complimentary, and both are intended to restore the salt marshes. The work occurring to the south of Drakes Island Road is on the Rachel Carson National Wildlife Refuge and is being led by Ducks Unlimited, not the Wells Reserve. That project is using sediment from Wells Harbor to raise the elevation of the marsh rapidly, a technique common in other parts of the U.S., but a first here in Maine

## How long does it take for the marsh to recover after restoration?

Reduction of standing water on the marsh surface will occur immediately, while revegetation of these areas occurs more slowly, over a decade or more. Healing the ditches will also take several years and will require annual additions of braided salt hay to achieve the desired results. Ongoing stewardship by the Wells Reserve will ensure that these changes are monitored over time, and that any problems are addressed quickly to keep the restoration on track.

To learn more about the Goodwin Marsh Restoration Project, scan the QR code or visit our project page: [wellsreserve.org/goodwin-marsh](https://wellsreserve.org/goodwin-marsh)



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