



Restoration of the Coonamessett River

What's Going On?

Welcome to a self-guided tour of the restored lower Coonamessett River watershed. This Town-owned land was managed as a cranberry bog for many years. Now it is a restoration project of the Town of Falmouth with over 40 partners, including the Coonamessett River Trust, the 300 Committee Land Trust and State and Federal Partners.

The Coonamessett River, once known as the Five-Mile River, was important to the native people of Cape Cod and to the immigrants who settled here. Coonamessett means “long fish, white pine place” in the Wampanoag language. Just as the Coonamessett winds through the center of Falmouth, it also wove through the history of our town. As Falmouth grew and changed, the river was altered to fit different needs and uses over time.

How long will it take for the wetland and river to be fully restored?

The active phase of restoration for the lower river was completed in 2018. Now it is up to Mother Nature and Father Time. The restoration will continue to evolve. Growing trees will shade the river, keeping it cool enough perhaps for brook trout to return. Scientists have discovered that seeds hidden in the wetland soils for hundreds of years are sprouting as they are exposed to sun and rain. The wetland will remove some excess nutrients which can help improve water quality in the Great Pond estuary. Now that the connection to Vineyard Sound is unobstructed, this area can provide flood storage and protection during large storms especially as sea levels rise.



Produced by the Coonamessett River Trust

1 Why is this boardwalk called Dexter's Crossing?

The Coonamessett River was one of the few streams in Falmouth with enough flow to power a waterwheel. Around 1700 the first grist mill, owned by Philip Dexter, was constructed near this spot to grind grain. Later, it was converted to a woolen mill to spin cloth from Falmouth's large population of sheep at that time. The mill specialized in making a thick and sturdy woolen cloth called kersey flannel, which was worn by Falmouth fishermen and whalers. Unfortunately, the waterwheels blocked the migrating herring from swimming up the Coonamessett River to spawn, causing an 1805 conflict known as the “Herring War” between mill owners and local people dependant on the spring bounty of herring to supplement their thinning winter food supplies.

This legacy dam remained in place for over 300 years. It was difficult for herring to pass through, delaying their upstream migration thus subjecting them to extra stress and predation. Removal of legacy dams, the one here and others upstream, is one of the most important aspects of the restoration.

2 Why is this called the Turtle Pond?

On a sunny day there are nearly always painted turtles warming themselves on logs provided for this purpose. They warm themselves in the sun to help regulate their body temperature and reduce the incidence of disease. This small pond, which we like to call the Turtle Pond, is continuously filled with cold springs from ground water year-round. We hope the cold water in this pond will help bring back brook trout, a native cold-water dependent species, once abundant in the Coonamessett River.



3 What is the purpose of the vertical poles?

What you see is part of a support system for whole trees that are buried along the river to stabilize the new river banks until natural vegetation can take hold. Large root wads are under the water where they provide shelter for fish. This wood is known as large woody debris and plays a key role in river restoration. Flowing water passing over the wood scours out deeper spots for larger fish to hang out. The wood also provides food sources and habitat for aquatic insects that fish like to eat.



4 What other changes did cranberry production bring?

In 1890 when the small local mills could no longer compete with the large mills in New Bedford and Fall River, the land was converted to cranberry bogs. Trees or native plants were removed and the land was flattened. The river was straightened and ditches built to drain away excess water. The photo below was taken before restoration in 2004. Following restoration, the river is now narrower, 50% longer and has eight new bends. There are now also deep pools for fish to live in and gravel riffles that support insects the fish like to eat.



5 Why were several feet of earth scraped off the bog during restoration?

Up to three feet of sand had to be removed from the old bog surface to uncover the original wetland soils. For over 100 years sand was regularly spread over the bog to promote the growth of cranberry plants. As it washed into the river, the sand created poor living conditions for the many river inhabitants, making it too shallow and hot. The sand had to be removed for the wetland and the river to function properly again. Now the stream bottom also has rocks, cobble and wood that support a more diverse population of aquatic insects indicative of better stream health. The removed sand was spread on the adjacent upland areas to provide a place for turtles to lay their eggs.

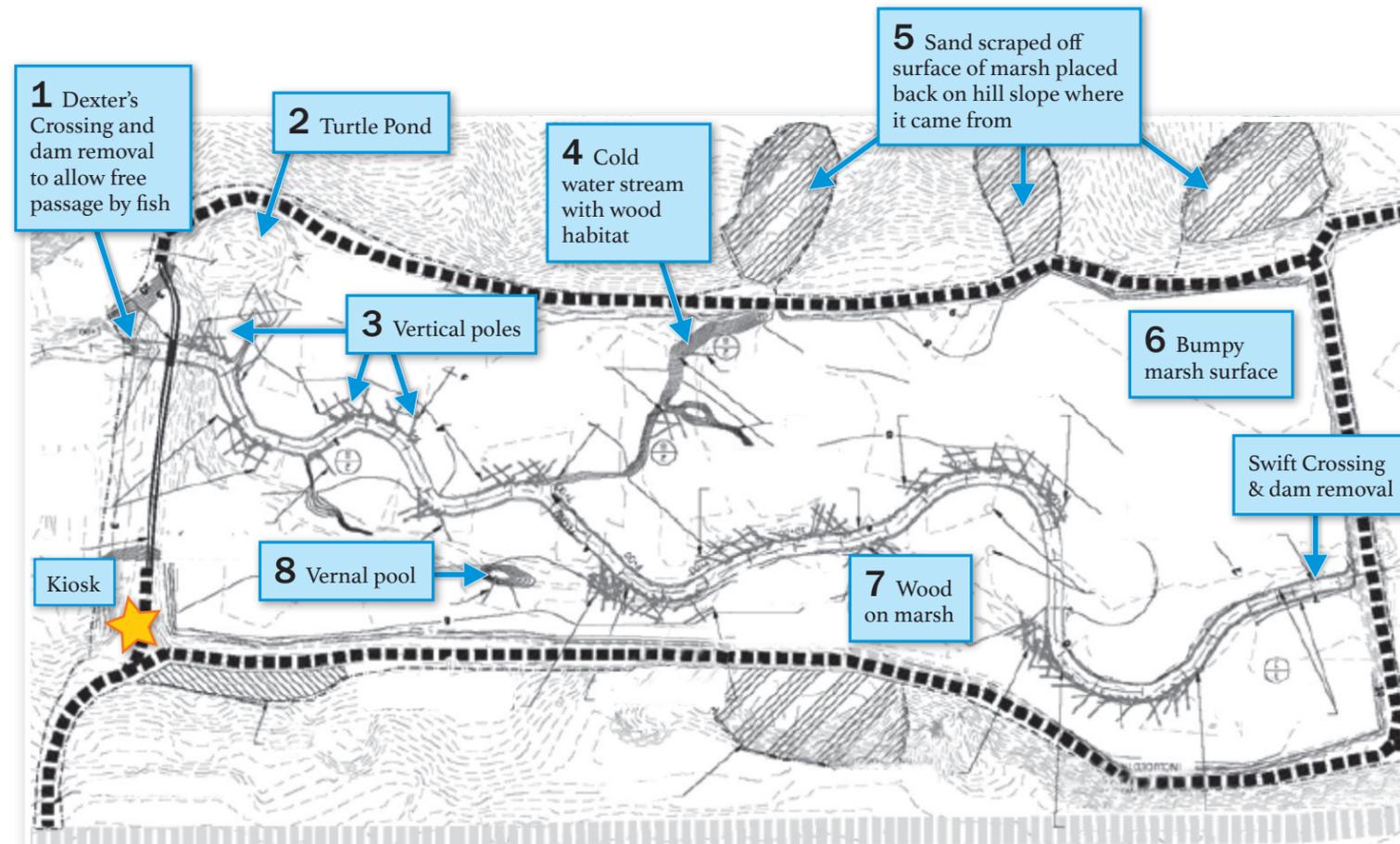
6 Why is the wetland surface so lumpy?

The marsh surface was intentionally made bumpy to increase plant and habitat diversity. This is referred to as *pits* and *mounds*. Some plants are adapted to low, wet spots called pits while others prefer higher, drier sites called mounds. The wet and dry create conditions for a greater diversity of plants. This variety provides for the needs of many different animals and birds. Keep an eye out for butterflies and dragonflies attracted to the site. Logs were left on the marsh surface to provide shaded spots for frogs, turtles, and salamanders.



7 Why are there tree trunks scattered about on the wetland?

It may look like the scattered tree trunks were just left for no reason, but not so! The trees were left on the marsh surface to provide shady areas and cover for frogs, turtles, and salamanders.



8 What is special about this pool?

It was created to be a vernal pool, a unique type of wetland that is typically full of water in the spring. Vernal pools are rare and special places where wood frogs and salamanders lay their eggs in the spring. During dry summers it will likely dry up. Keep an ear out for the unique "quack" call of wood frogs in the spring.