

One way to improve Cape Cod's water quality? Return unused cranberry bogs to wetland.

A pair of old [cranberry bogs](#) on the east side of [Santuit Pond](#) in [Mashpee](#) are about to undergo a transformation: from manicured agricultural acreage back to a wild, freshwater wetlands landscape.

Totalling 6.5 acres, the former [Chop Chaque cranberry bogs](#) are part of a restoration project the [town of Mashpee](#) is working on in partnership with environmental consulting firm [Horsley Witten Group](#), the [Massachusetts In-Lieu Fee Program](#), and the [Massachusetts Division of Ecological Restoration](#).

The bogs are on 11.7 acres the town bought three years ago with Community Preservation Act funds. Out of cranberry production for about four years, the Mashpee bogs join [a growing number of former bogs on Cape Cod](#) getting turned back into wetlands. This is happening as [cranberry farmers retire](#) or consolidate bogs in a move toward introducing new, more productive and less land intensive cultivars.



Turning unused cranberry bogs into wetland is good for Cape Cod's water quality

Besides restoring the Cape's wild ecosystems and improving resiliency in the face of climate change, restored acreage provides better management of nutrients from septic systems and storm runoff.

“It is a major trend and for good reason — restoring cranberry bogs to their natural state benefits

the environment, encourages the return of wildlife and rare species habitats and contributes to the health of our waterways," said Horsley Witten Group Principal Scientist Neal Price.

What will happen to the Chop Chaque cranberry bogs?

The Chop Chaque project is funded through a \$525,000 In-Lieu Fee Program grant from the [Massachusetts Department of Fish and Game](#).

Price estimates farming was done there in the early 20th century, if not earlier. The bogs are present in a 1938 aerial photo.

[Mashpee Conservation Agent Andrew McManus](#) said the project is close to breaking ground and is expected to get underway over the winter.

Work will include removal of the mat of old cranberry vines and excess sand that accumulated over decades of farming, in addition to filling artificial ditches, roughening bog services, removing a culvert that connects Santuit Pond to the bogs and removing the pump house. The barn will remain "as just a pretty barn to look at," with no reuse planned for it.

Unlike the much [larger bog restoration](#) Horsley Witten Group is working on with the [Barnstable Clean Water Coalition](#) in Marstons Mills, which is primarily aimed at water quality improvement in the bog area and downstream of the Marstons Mills River, the Chop Chaque restoration is principally a habitat-ecology kind of restoration, Price said.

That's not to say there won't be any water quality improvements, since wetlands naturally filter water, besides increase the land's ability to act as a carbon sink and to handle heavy precipitation. Wetlands, he explained, have greater capacity to uptake nutrients and any harmful chemicals, improving both surface water and groundwater.

Mole salamanders, wood frogs and box turtles among species benefiting

"But the biggest improvement would be to wildlife habitat," McManus said. "Mole salamanders and [wood frogs](#) would greatly benefit from this being converted back to wetlands."

There are at least four [types of mole salamanders in Massachusetts](#), according to the [Massachusetts Audubon Society](#), two of which are listed as species of "special concern," and one of which is listed as "threatened," under the [Massachusetts Endangered Species Act](#).



The project will also benefit [eastern box turtles](#), another species of special concern in Massachusetts. Price said plans include creating nesting habitat specifically for box turtles.

Additionally, McManus said, the restoration will re-create habitat that's ideal for a variety of waterfowl for nesting and feeding.

The project will combine deep water and shallow water features, he said, and restoration of scrub shrub and other vegetation native to the wetland.

"The anticipation is there is a native seed bank underground that is just waiting to be exposed," McManus said.

That will constitute the majority of re-vegetation of the site. In areas where that restored native growth either doesn't happen or is sparse, a native seed mix will be applied.

"It's certainly going to be a dramatic improvement over existing bog surface area," he said.

As part of the project, the former bogs will be disconnected from Santuit Pond. Price explained an artificial connection was created to handle flood waters from the bogs when farming started, but originally the wetlands were isolated.

Restoration may improve Santuit Pond's water quality

The restored wetlands may help improve water quality in Santuit Pond, a troubled water body affected by nutrients coming mostly from septic systems that don't filter out nitrogen. The pond is frequently highlighted on the [Association to Preserve Cape Cod's map of Cape Cod ponds](#) beset with toxic algae blooms — the organization monitors a number of ponds during warm months, and issues weekly advisories about blooms and any resulting pond closings.

As it has been in the past, the land will still be accessible to the public, McManus said, though there

may be restrictions during construction.

McManus said restoration will take up to three months, depending on the weather.

Besides the Chop Chaque bogs, Price said his firm is working with Mashpee on two other bog restoration projects: on the Quashnet River and on Red Brook. Both have been in the works for a few years. The Chop Chaque bogs are the first of the three to reach the construction stage.

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