

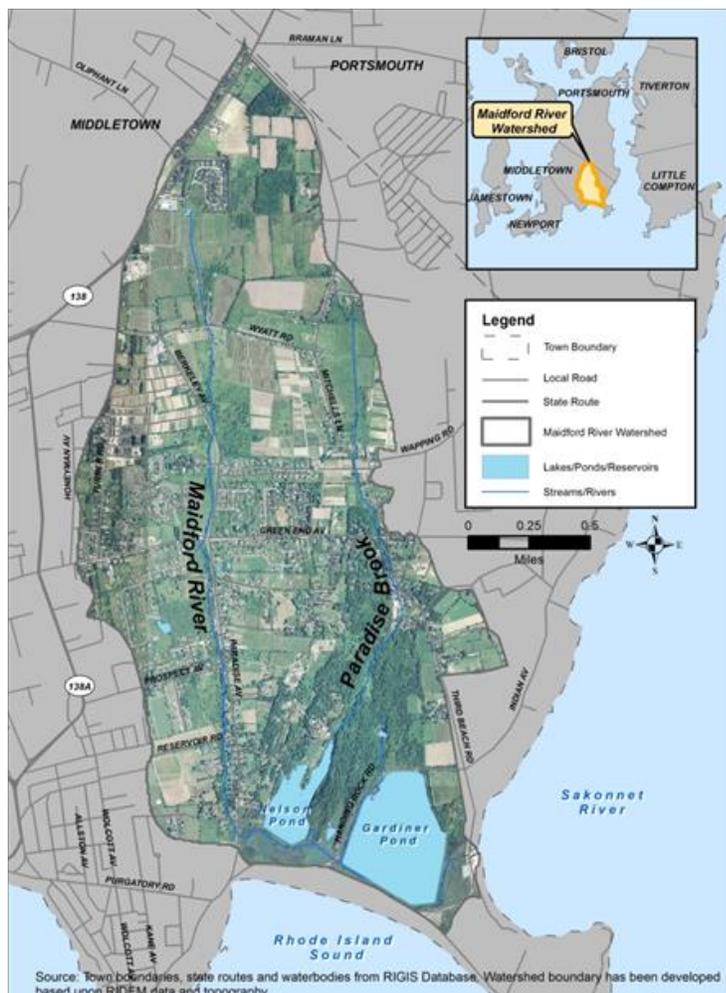
Maidford River

Floodplain & Buffer Restoration Project

The Maidford River may appear as a small and insignificant waterway but it is the primary source of water to two of Aquidneck Island's water supply reservoirs, Nelson Pond and Gardiner Pond.

The Maidford River's water quality is considered poor. It is impacted by bacteria, nitrogen, phosphorus, and suspended solids. Nitrogen and phosphorus pollution contributes to algal blooms, including potentially toxic cyanobacteria blooms. Both Nelson and Gardiner Ponds experience algal and cyanobacteria blooms, and the Maidford River is a major contributor of pollution causing the problem. The Maidford River also makes it way to Third Beach, where the river's elevated bacteria levels may contribute to beach closures. These water quality issues are serious but not always visible.

The river's more visible problem is the frequent flooding of roads, lawns, and fields. It's a problem long in the making due to increased runoff from development, straightening of the river, and culverts (which carry the river under roads) that are no longer big enough to carry the river's flow. Adding to the problem is the more frequent intense rain storms, and reduced natural floodplain to absorb the water. Flooding of roads, fields, and lawns is a public health and safety concern; it also causes erosion and significantly increases pollution in the river.



Floodplain Restoration

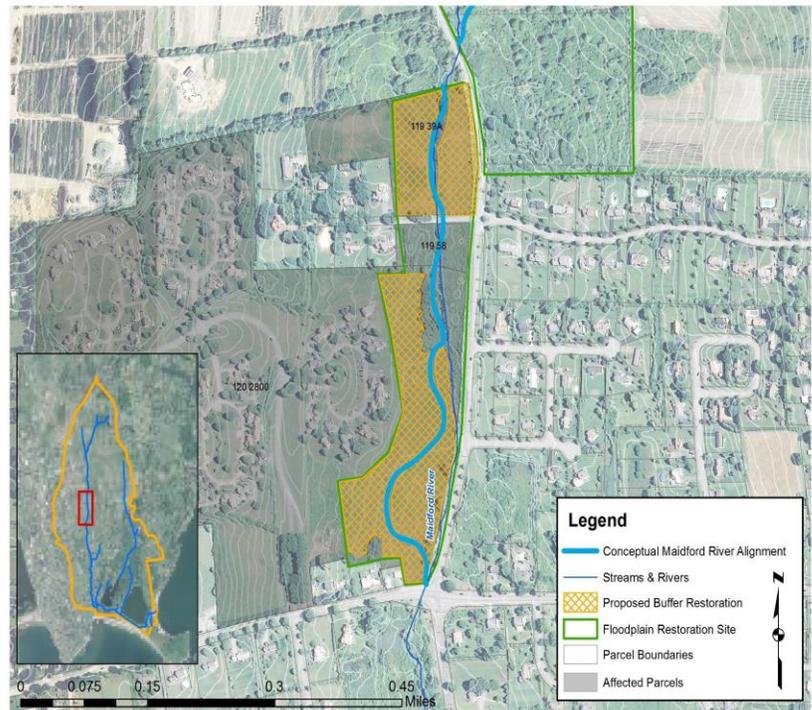
The river's problems are cause for concern but efforts are underway to protect and restore these waters. The Aquidneck Land Trust (ALT) has worked to preserve and manage sensitive areas from further development and the Town of Middletown has retrofitted existing drainage swales and areas that capture polluted road runoff, and planted tree filters to reduce roadway pollutants. Building on these efforts with the support of the Southeast New England Network, the Town and ALT are now advancing planning and design of nature based solutions to reduce flooding and improve water quality.



Working with property owners, the studies underway are evaluating various alternatives to increase the river's flood storage capacity and restore the floodplain in the upper Maidford watershed. The alternatives include both re-creating the river's historical meanders by moving it away from

Berkely Avenue, and re-grading the land adjacent to the river to expand the river's floodplain and safely store higher flows. The evaluation also includes upgrading the culvert at Whitehall Lane/Berkeley Avenue Extension, which restricts flows and worsens flooding in the area.

After the preliminary studies are completed, an alternative that best meets the project's goals and property owners' interests will be selected, and a more detailed plan will be developed. Meetings will be held with affected property owners to explain the proposed project in detail, and to seek permission to proceed. Once written permission has been secured, with the endorsement of the Middletown Town Council, work will begin to secure necessary permits for the project from the Rhode Island Department of Environmental Management and the U.S. Army Corps of Engineers. The permitting process could take a year or more depending on the project's complexity. Once permitting is complete and funding for the project is secured, construction would begin.



GRAPHIC DEPICTS PROJECT AREA AND TYPE OF RIVER RE-ALIGNMENT BEING EVALUATED

Buffer Restoration

The plan to increase the river's flood storage is just part of the solution. Project partners are reaching out to all property owners along the river to offer assistance to restore and protect the area adjacent to the river – to create what is known as “riparian buffers” along the river's full length. The goal is to restore as much as possible of the river's riparian buffer to native vegetation. Restoring these areas to a more natural condition and allowing trees and shrubs to grow protects the river and the animals that live there. For more information about restoring buffers on your property, visit the SNEP Network's website at <http://snepnetwork.org/buffer/>.

Floodplain restoration projects, such as these underway on the Maidford River, are a highly effective strategy for reducing flooding, improving water quality, and increasing resilience due to the impacts of more intense rain events. We hope that you will lend your support to make these efforts a success and do your part to protect Aquidneck Island's water supply, beaches and other treasured resources. To learn more, visit SNEP Network's website at <https://snepnetwork.org/maidford/>.

Project Funding

Technical assistance and consultant services to further evaluate the feasibility of the Maidford River Restoration Project are being provided (at no cost to affected property owners or Middletown taxpayers) as a pilot project of the newly formed Southeast New England Network, funded by a US EPA grant. The Network was formed to provide assistance to Southeast New England communities to advance stormwater management and ecological restoration, and develop sustainable revenue streams to support these efforts into the future. Network partners are working closely with Middletown and the Aquidneck Land Trust, to undertake necessary field work and detailed engineering analyses to evaluate the project's feasibility, and if found feasible, to advance planning and the preparation of necessary permits, and secure funding to construct the selected nature based solutions.