

Who we are: APCC is a nonprofit environmental organization founded in 1968. We promote policies and programs that foster preservation of Cape Cod's natural resources. In 2015, APCC established the Restoration Coordination Center to assist towns and communities with implementation of **restoration projects** by providing coordination, project management and technical assistance.

Why is a Restoration Coordination Center (RCC) needed?

- Natural areas have been degraded by decades of human alterations and pollution. Restoration projects can help undo some of these negative impacts.
- To date, the RCC has **identified 160+ potential** restoration projects that Cape towns want to undertake, but lack the resources to implement.
- Towns and communities need assistance with funding and implementation of their high priority projects. The RCC is developing and maintaining a Cape-wide inventory of priority projects and actively seeking funding to accomplish these projects.

**Restoration Projects:** projects designed to restore ecological function to natural systems such as salt marshes, streams, and wetlands

**Resources that benefit from restoration**



**Water**

**Habitat**

**Wildlife**

**Fisheries**

**Shellfish**

**Beaches**

What types of projects does the RCC work on?

- **Salt marsh** and **fish run** restoration projects that entail removal of **tidal restrictions** and barriers to fish passage, to reestablish natural water flow, improve water quality, and restore habitat for native species
- **Stormwater** management projects to protect and improve water quality and habitat through collection and treatment of polluted stormwater runoff
- **Coastal resilience** projects, such as dune restoration, to protect the Cape's environment and inhabitants from impacts of coastal storms and sea level rise

**Tidal Restrictions:** human-created barriers such as undersized pipes or culverts (shown below), narrow bridge underpasses, or dams that limit or prevent natural tidal flow



**Coastal Resilience:** the ability of a community to 'bounce back' after hazard events, such as hurricanes, coastal storms, and flooding, rather than simply reacting to impacts



### Example Tidal Restoration Project: Parker's River

This project involves the replacement of an existing bridge along Route 28 in Yarmouth in order to restore full tidal flow to the upstream salt marsh system (pictured left). The new widened bridge opening will allow greater upstream tidal exchange resulting in improved salt marsh health, better flushing of nutrients, and improved fish passage. APCC is working with the project team to review design, permitting and construction plans and is providing pre- and post-restoration monitoring.

### Example Stormwater Installation: Hyannis Harbor

Rain gardens, like this one installed by the town and the EPA at Hyannis Harbor (pictured below), collect and treat rainwater runoff from nearby roads and parking areas. This runoff can carry a variety of harmful pollutants including nutrients like nitrogen and phosphorus, which can cause harmful algal blooms and low oxygen conditions in coastal waters. The inclusion of plants imitates natural wetland functions



and helps remove excess nutrients and other pollutants before treated water is discharged into the harbor. APCC is working with towns and communities across the Cape to identify locations for similar stormwater installations around impaired waters.

### **Why is stormwater runoff a problem?**

Stormwater runoff collects pollutants from the ground surface (bacteria from pet and wildlife waste, oil and gas from roadways, and fertilizers and pesticides applied to lawns and greenways) and discharges them into ponds, streams, and estuaries impairing water quality and contributing to beach closures, shellfish closures, and toxic algal blooms.

### Example Fish Passage Project: Upper Shawme Pond Fish Ladder

This project involved the rebuilding of a failing dam, installation of a fish ladder (photo right), and restoration of a herring run that had been non-functional for more than 30 years. APCC helped the town of Sandwich to obtain grant funding and to monitor returning herring.



After growing to maturity at sea, **river herring** swim up streams in spring to reach their spawning grounds in freshwater ponds and streams. Stream restoration projects help to improve fish passage beneath roadways, through bogs, and around other man-made obstacles.