# Bride's Brook Restoration Overview

Project Location: Rocky Neck State Park, East Lyme, CT, New London County, Bride Brook Watershed

Land Owner: Connecticut Dept. of Environmental Protection (DEP) State Parks Division

Project Introduction: Located at Rocky Neck State Park in East Lyme, Connecticut, Bride Brook features the second largest alewife (herring) run in the Sound and is crucial for migratory fish populations. It has also been used to provide alewife for fish restoration projects that require seeding to begin the run. Existing culvert structures restrict tidal flow, particularly at low tide; this waterlogs the soils, the primary reason for the drowning of marshes upstream. The existing corroded culvert structures are in imminent danger of complete blockage and collapse, threatening to shut down the alewife run. A new, large cement box culvert and open channel will be constructed to replace the failing culverts.

Project Scope: Volunteer transplantation of dune grass prior to construction; excavation of dune; installation of stream diversion pipe; removal of existing culvert pipes and headwalls; installation of new headwalls and cement box culvert; creation of open channel to the Sound; re-establishment of dune elevations; volunteer planting of dune grass and shrubs.

Project Outcomes and Benefits:

- Prevent shutdown of the second most important alewife run in Long Island Sound
- Enhance 5+ river miles and 72+ acres of lake for fish migration and breeding habitat
- Restore 81+ acres of estuarine marsh
- Improve water quality
- Enhance 5+ acres of dune habitat
- Improve support for migratory and resident bird populations

1. Restoring a natural tidal hydrology to the Bride Brook marsh system allows both daily tidal flooding and ebbing flows for fish and other marine animals to access important foraging and cover habitats, and enhanced marsh substrate conditions to allow a healthy tidal marsh plant community to flourish.

2. Adult alewife are afforded unimpeded access to upstream spawning and rearing habitat in Bride Lake, and juvenile alewives migrating to the sea in late summer and early fall can readily pass to the ocean. The Bride Brook run has been historically one of the larger alewife runs in Connecticut.

3. Restored intertidal flats are created within the marsh channels that provide important wading bird and shore bird foraging areas

4. A healthier tidal marsh and alewife run translates to greater recreational values - enhanced wildlife viewing and photography, increased shellfishing, forage fish for recreational and commercial fisheries, and greater environmental stewardship values by the general public, particularly those persons who visit the marsh and Bride Brook to observe the ecological restoration in progress.

5. Creation and retention of local Connecticut jobs.