



Federal Role in Dam Removal and River Restoration

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- High Priority Civil Works Missions :
 - Ecosystem restoration*
 - Watershed Planning
 - Navigation
 - Flood Risk Reduction (includes shoreline protection)
- Several authorities to plan, design, and construct projects with cost-sharing non-Federal sponsors



Cooper River Fishladder, Haddonfield, NJ



- Authority: Section 206, Continuing Authorities Program
- Non-Federal Partner: Camden County Parks Department
- Total Project Cost: \$150,000
- Purpose: Restore 4 miles of migratory fish passage (blueback herring and alewife) on the Cooper River
- Installation of fish passage facilities at Wallworth Lake Dam and Evans Pond Dam, which are located within ¼ mile of each other in a residential park in Haddonfield, NJ.
- Has been used for environmental education opportunities with local schools
- Timing: Planning began in 1998, Construction completed in 2000.

Cooper River Fishway Restoration Project

US Army Corps of Engineers

Partners: PSEG, EPA, Camden County Parks Department, Coastal America, Fish America Foundation, National Fish and Wildlife Foundation, New Jersey Department of Environmental Protection, Division of Fish & Wildlife, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Public Service Electric & Gas, U.S. Army Corps of Engineers - Philadelphia District, U.S. Environmental Protection Agency - Delaware Estuary Program, U.S. Fish & Wildlife Service - New Jersey Field Office

Highlights: Project completed in 2000. Provides migratory fish access to 4 miles of river. Improves biodiversity for fish and wildlife. Restores the aquatic food web to a more natural system.

Species Helped: Alewife (*Alosa pseudoharengus*), Blueback herring (*Alosa aestivalis*)

Alewife and blueback herring are commonly known as river herring. Both species provide food for striped bass, weakfish, largemouth bass, chain pickerel, white and yellow perch, as well as birds such as ospreys and herons.

As migrating (anadromous) species, river herring migrate in the spring from salty and brackish waters of the ocean and bays into freshwater rivers and lakes (such as Cooper River) to spawn.

River herring spawn between late March and Mid-June. In the fall, the young herring migrate downstream and out to the ocean where they remain for 3 to 6 years before returning as adults to their Cooper River spawning grounds to reproduce. Herring eat microscopic plants and animals (i.e., plankton) that float or drift in the water. Herring grow to a length of 12 to 15 inches, and can be found along the Atlantic coast from Nova Scotia to Florida.

For More Information About this Fishway Project and Other Restoration Efforts Contact Camden County Department of Parks (856) 795-7275, the U.S. Army Corps of Engineers (215) 656-6516.



Fairmount Dam Fishladder, Philadelphia, PA



- Authority: Section 1135, Continuing Authorities Program
- Non-Federal Partner: Philadelphia Water Department
- Total Project Cost: \$4.5M
- Purpose: Restore migratory fish passage (Shad) at the Fairmount Dam Fishladder on the Schuylkill River
- Along with four similar projects upstream, this restoration project opened up 100 miles of migratory fish passage and has been very successful in terms of the number of fish now migrating
- Includes educational component for Philadelphia residents and visitors
- Timing: Study began in 2002, construction began in 2008 and was completed in 2009.



Indian Creek Restoration, Philadelphia, PA



- Authority: Section 566, Southeastern PA Environmental Improvements
- Non-Federal Partner: Philadelphia Water Department
- Total Project Cost: estimated \$4.1 M
- Purpose: Reduce combined sewer overflow events and decrease flooding of Morris Park in West Philly (at Lansdowne Ave and Haverford Ave) by constructing a new stream channel to the East Branch of Indian Creek to bypass the sewer system.
- Re-aligned the West Branch of Indian Creek away from the combined sewer and restored the stream to a more natural state.
- Timing: Study began in 2006, construction completed in 2014.



Cobbs Creek Fish Passage, Philadelphia, PA



- Authority: Section 566, Southeastern PA Environmental Improvements
- Non-Federal Partner: Philadelphia Water Department
- Total Project Cost: estimate \$2.6M
- Purpose: Restore fish passage on Cobbs Creek (target spp. Blueback herring) by removing the dam and restoring the stream adjacent to the dam, near Woodland Avenue in Fairmount Park
- The dam is the first impediment to fish passage on Cobbs Creek from tidal region
- Removing the dam would prevent any future dam failure and possible public safety hazard and open up 4 mi of habitat.
- Timing: Study began in 2009, currently at 90% plans and EA will be released for public review in April.

