

## REBIRTH OF THE BRANDYWINE

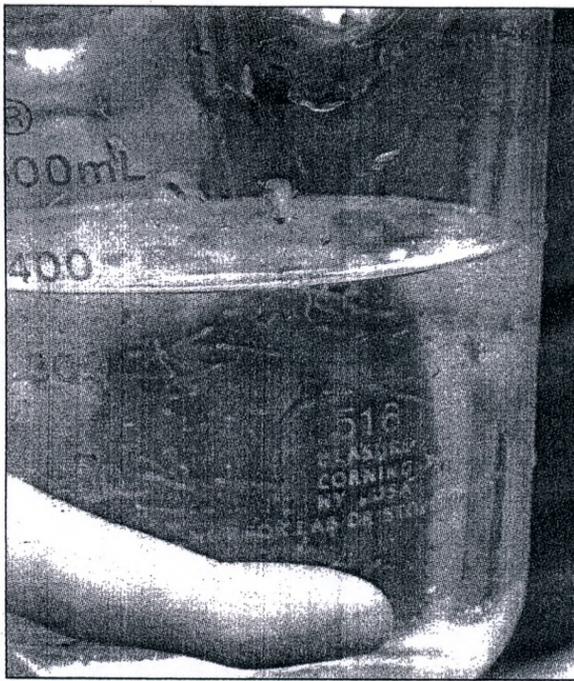
# Shad restoration effort moves into implementation phase

By Andrea Miller  
Staff Reporter

Inside a plastic-lined cardboard box on the banks of the rain-swollen Brandywine Creek near Hagley Museum's Soda House were 5,000 tiny translucent fish whose imminent release represented the start of a new era for the local, state and national officials who waded in to tip a measuring cup teeming with life into the chilly Spring current.

Those gathered for the April 24 release of the American shad fingerlings were celebrating the formal unveiling of a multi-agency project spearheaded by the Brandywine Conservancy to remove or modify 11 dams in order to bring shad and other migratory fish back to a five-mile segment of the Brandywine in Delaware.

The conservancy project, part of a larger dam removal movement to bring migratory fish back to many East Coast rivers, has been quietly in development for several years, beginning



Photos by Andrea Miller

Thousands of American shad fingerlings, two weeks old and measuring no more than a half inch, were released into the Brandywine Creek near Hagley Museum's Soda house during a celebration of a dam removal project aimed at bringing the migratory fish back to the creek.

with a 2005 feasibility study funded by grants from the National Fish and Wildlife

Foundation, Delaware Estuary Program.

It continued with partnership building that has resulted today in wide support from the dam owners, including the State of Delaware, City of Wilmington, DuPont Company and Hagley Museum and Library, said Brandywine Conservancy Environmental Management Center Senior Planner Robert Lonsdorf, as well as the National Oceanic and Atmospheric Administration, Natural Resources Conservation Service, and other local and regional environmental groups.

Acquiring funding, moving through the permitting process and design work for the first two dams, both in Wilmington, is already under way, though



Brandywine Conservancy Environmental Management Center Senior Planner Robert Lonsdorf (left) and Delaware Department of Natural Resources Fisheries Program Manager Craig Shirey release a cupful of tiny American shad into the Brandywine Creek.

no completion date has been set for either.

Wilmington Mayor James Baker called the Brandywine one of the city's most beloved resources, one that generations have enjoyed for its aesthetics and recreational opportunities.

"Now we have the opportunity to give something back to our cherished river. By working together with other dam owners and the Brandywine Conservancy, we can provide a healthier, revitalized river for future generations to enjoy," he said in comments to about 40 assembled at the celebration.

As the project formally moved from feasibility to implementation phase in Delaware, the Conservancy also announced the kickoff of a companion restoration feasibility study for Brandywine's upstream waters in Pennsylvania.

The group said such coordinated efforts are key to the rebirth of the Brandywine — a revitalization with environmental, economic, recreational and historic implications. Benefits include an estimated 25,000 annual fishing sportsman trips, opportunities for shad festivals that celebrate the areas' early

### AMERICAN SHAD ON THE BRANDYWINE

The American shad is an ocean dwelling migratory fish that hatches in freshwater rivers and creeks in late Spring, then swims to the ocean where it lives for about four years before returning to its birthplace to spawn.

In early days of the European settlement, the abundance of shad on the Brandywine was legendary, and a mainstay for the early fishing industry. However, populations dwindled as dams — built to provide water power for a vibrant mill industry that sprung up along the Brandywine — blocked fish from swimming upstream.

heritage, and increased biodiversity, including white perch, American eel, blue herons, mink, river otter, and freshwater mussels, whose larvae are carried upstream on the shads' scales.

Restoring shad populations largely involves removing dams to re-create passages for the fish to swim upstream. However, in order to preserve historical assets or maintain aesthetics, other

options include notching the structures to create a fish passage, or building rock ramps, bypass channels, and fish ladders alongside existing dams.

In the glory days of Delaware's mill industry, there were as many as 100 dams on the Brandywine. Today, there are 11, all functionally obsolete, many breached or failing, but several with historic or aesthetic value, so a lot of care is being taken to ensure that environmental issues are balanced against historical preservation.

Groups like Hagley Museum and DuPont Company, which own some of the more historic structures, are supportive.

"The Brandywine River has been an important part of the history of the DuPont Company. The river's strength provided the power needed to operate the mills that manufactured DuPont's first product, black powder explosives. Today, we are working with the Brandywine Conservancy in full support of the Shad Restoration Project," said Thomas Connelly, DuPont Executive Vice President and Chief Innovation Officer.

The entire project on the Delaware side of the Brandywine is expected to cost between \$1 million and \$3.5 million and take 10 years to complete.

For Your Information  
from the  
Brandywine Conservancy  
Public Relations Dept.

The Shad Restoration Feasibility Study is available on their website at [www.brandywineconservancy.org](http://www.brandywineconservancy.org), or by calling the Brandywine Conservancy at (610) 388-2700