



U.S. Fish & Wildlife Service

National Fish Passage Program

Reconnecting Aquatic Species to Historical Habitats

Background

Early in our history, rivers ran wild, unobstructed by barriers, and fish followed them according to their needs. However, early Americans were unaware of their effects on the natural world. The Nation's resources seemed unlimited. Then the fish began to disappear.

All river fish migrate between feeding and spawning areas and make other seasonal movements to important habitats.

After more than three centuries of building dams and other barriers on rivers, many Americans are concerned about their effects on fish and other aquatic species.



Good Hope dam removal on Conodoquient Creek, PA. USFWS photo.



USFWS photo.

Nationally, an estimated 2.5 million artificial barriers prevent fish passage, including 75,000 dams greater than six feet high.

What is the problem?

Millions of culverts, dikes, water diversions, dams, and other artificial barriers were constructed to impound and redirect water for irrigation, flood control, electricity, drinking water, and transportation--all changing natural features of ecosystems. Many dams are obsolete and no longer serve their original purpose. Culverts that funnel water beneath roads and train tracks often pose insurmountable barriers to fish.

Barriers prevent natural fish migrations, keeping them from important habitats. As a result, some populations of native fish are gone and others are on the brink of disappearing.

What is the National Fish Passage Program?

We remove and bypass barriers. All projects are voluntary, done in cooperation with willing partners.

The National Fish Passage Program, which began in 1999, partners with agencies, private organizations and landowners to reconnect aquatic species to historical habitats, and restore natural flows and fish migrations.

Biologists determine what fish species need help and the best sites for projects. They conduct "before and after" surveys to evaluate project benefits.

The goal of the National Fish Passage Program is to restore native fish and other aquatic species to self-sustaining levels by reconnecting habitat that has been fragmented by barriers.

A comprehensive database of barriers preventing fish movement is being developed; called the Fish Passage Decision Support System.

Partnerships are in place to obtain comprehensive fishery and habitat data at barrier locations. The system can be used to identify and prioritize projects.

What are the benefits?

Restoring fish passage benefits people, fish and other animals. Fish passage projects increase habitat available for fish spawning and growth. Enhanced fish populations can provide enhanced opportunities to catch fish.

Eighteen endangered and threatened species have directly benefitted, as well as many more forage and game fish species.

Natural flows and temperature have been restored for trout, herring, striped bass, shad, sturgeon, salmon, minnows, and darters. Fish-eating birds such as eagles, ospreys, and kingfishers have more forage. Bears, otters and mink benefit from larger fish populations.

Anglers and commercial and subsistence fishers benefit from larger fish populations, which are distributed across more available habitats.

What needs to be done?

In 2001, the Service and its partners identified 196 fish passage projects, including 436 barriers, totaling \$44 million to complete. These are voluntary projects with willing partners. Passage at these barriers would provide access to 5,983 miles and 142,830 acres of historical habitats. The Service and its partners will complete these projects as funding becomes available. Thousands of additional barriers await identification and remedial actions.

Collaborative partnerships are also needed to populate the Fish Passage Decision Support System. Access is needed to barrier and fish databases from federal, state, or local sources.



Dam removal in the Neuse River Basin, NC. USFWS photo.



Program Accomplishments

- The Program has supported 105 fish passage projects with over 166 different partners.
- Restored access to over 3,750 miles of river habitat and 69,191 acres of wetlands for fish spawning and growth, enhancing public recreation.
- Program contribution: \$3.5 million; Partner contribution: \$7.2 million.



Fish screen on Bridge Creek, Malheur NWR, OR. USFWS photo.

"The fish like it. I saw two northern pike just minutes after we opened the culvert."

Fairbanks Daily News,
November 2001

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Culvert renovation on Hardwood Creek, MI. USFWS photo.

