



Hydropower

Examples of Accomplishments

Service participation in FERC's hydropower licensing process has resulted in many benefits for the Nations fish and wildlife resources. The following examples provide an overview of significant contributions Service expertise in fish and wildlife matters has made to resources affected by the construction and operation of hydropower projects.

Susquehanna River Projects, Pennsylvania

Four large hydropower projects block passage of anadromous fish to historic spawning waters of the Susquehanna River in Pennsylvania. The Service was instrumental in convincing FERC to consolidate the relicensing cases of all the hydro power projects in order to address fish passage needs. Service biologists defined a long-term restoration program for American shad which resulted in settlement agreements with effected utilities.

From 1984 - 1993, cooperative efforts by utilities and government agencies focused on rebuilding shad runs returning to the river. Success in this effort led to the construction of a fish passage facility at the lowermost dam and an agreement with the three remaining utilities to complete fish passage at their dams. Once completed, shad, river herring and other migratory fish will have to access to over 300 miles of spawning habitat in the Susquehanna River.

Otter Tail River Projects, Minnesota

In coordination with the Minnesota Department of Natural resources, the Service recommends measures to improve flow conditions at five existing hydro projects on the Otter Tail River. Based on instream flow studies conducted for the project, stable flow operations at four of five individual projects, and substantially increased flows in another section of the river were included in the new license. As a result, habitat conditions have been greatly improved for fish and other aquatic species in over 24 miles of river.

Skagit Project, Washington

Service overview and input during 11 years of studies and negotiations yielded agreements for protection, mitigation and enhancement of fish and wildlife resources in relicensing of three dams on the Skagit River in western Washington state. River flows will be increased and habitat enhanced to benefit salmon and other native river species. Over 500 acres of wildlife habitat will be preserved and ecosystem monitoring and research are part of the plan. Additionally, eroded sites along project reservoirs and roads will be stabilized and replanted with native vegetation.



Jordan Dam, Alabama

Based on Service recommendations, FERC required the power company to increase the minimum flow released below the Jordan Dam on the Coosa River in Alabama. When the dam was built, approximately eight miles of river became a series of ponds; flows needed to sustain the endangered Tulotoma snail, paddlefish, and a trophy striped bass fishery were cut off. Fish numbers and diversity, and numbers of Tulotoma snails have increased with these flow releases.



Pit River Projects 3, 4, and 5, California

Negotiations with the developers of Pit 3, 4, and 5 Projects on the Pit River in California will allow improved instream flows to support restoration of bald eagle populations in the basin. Since initiation of minimum flow releases below the Pit 3 dam, studies have documented increased numbers of fish favored by bald eagles and improved angling success for rainbow trout.



Coneross Project, South Carolina

Studies, negotiation, and Service involvement resulted in increased flows required by FERC. The flow regime allows for seasonal fish passage, fish habitat, and invertebrate production in a formerly dewatered reach of Coneross Creek in South Carolina.

Stiles Dam, Wisconsin

The results of an instream flow study conducted cooperatively by the Service and the Wisconsin Department of Natural Resources led to substantial increases in minimum flow releases at the Stiles Dam on the Oconto River in Wisconsin. Increased minimum flows and stabilized reservoir levels will greatly improve habitat for many fish species, including walleye, smallmouth bass, and steelhead.



Bradley Lake Hydroelectric Project, Alaska

The Service recommended measures to protect and restore fish and wildlife at the Bradley Lake Hydroelectric Project in Kenai Mountains of south central Alaska. Guidelines were developed to restore moose and bear habitat disturbed by construction and to create nesting habitat for waterfowl. Access roads were designed to avoid important bald eagle nesting habitat to reduce impacts from construction activities and to benefit the salmon fishery, a water by-pass system was installed to protect spawning salmon in the lower Bradley River and gravel mining sites were reclaimed to enhance fish habitat.



Salmon River Projects, Idaho

In the early 1980s, the Service petitioned FERC to consider the cumulative impacts of multiple hydroelectric project developments in the Salmon River basin. At one point, there are over 60 active proposals to build hydropower projects on tributaries of the Salmon River - most would have harmed anadromous and resident fish as well as wildlife. Thanks to the cooperative efforts of a number of Federal and State agencies and various Indian tribes, FERC chose to delay licensing of most of these projects until a basin-wide environmental impact statement considering cumulative impacts could be completed. As a result, eight applications were denied because of the potential for significant environmental degradation. The others are still pending before FERC.



New York State Dam, New York

The Service played a major role in assuring that a new license on the Mohawk River in New York addressed the protection of public trust resources. Construction and operation of newly designed fish passage facilities combined with a program of monitoring and operational modifications, provides for safe and effective downstream fish passage for large numbers of anadromous blueback herring on the Mohawk River while avoiding project-related fish mortality's.

