



Fisheries
& Habitat
Conservation

U.S. Fish & Wildlife Service

Fisheries and Habitat Conservation

National Fish Passage Program

FISH PASSAGE DECISION SUPPORT SYSTEM

Background

Initiated in 1999, the National Fish Passage Program works with partners to restore fish and other aquatic species by reconnecting habitat that has been fragmented by artificial barriers. The challenge is great. There are an estimated 75,000 dams greater than six feet in height and another 2.5 million smaller fish passage barriers in the United States.

Until recently, fishery biologists did not have access to a comprehensive inventory of all fish passage barriers to use for planning and prioritizing restoration efforts. In fact, two recent dam removal publications recommend establishing a comprehensive inventory of dams to allow better analysis and understanding of the segmented nature of streams and rivers.

Now, the National Fish Passage Program has given biologists and decisionmakers a powerful new tool to address this issue better and faster — the Fish Passage Decision Support System.

What is the Fish Passage Decision Support System?

The Fish Passage Decision Support System (FPDSS) is a comprehensive database of barriers preventing fish movement that is complemented by a host of analytical tools. The database provides barrier information, such as; location, type, size, owner; passage capabilities, associated fish species, and local habitat information. The goal of the FPDSS is to include all barriers that prevent or inhibit fish or other aquatic species from reaching historic habitats, including dams, culverts, inefficient fishways, water diversions, ineffective screens, and inadequate flows or water quality.

Most importantly, the FPDSS is an internet-based, geographicallyreferenced system. It provides on-line data entry, and a mapping utility program with analytical



U.S. Fish & Wildlife Service
Fish Passage Decision Support System





FPDSS Map Viewer:

Welcome

The Fish Passage Decision Support System (FPDSS) is an online application funded by the U.S. FWS Fish Passage Program. The FPDSS makes information about barriers to fish passage in the U.S. available to policy makers and the public.



Current Barriers in the FPDSS

Quick Search:

Enter a barrier name:

Choose a State:

Alabama ▼

advanced search ...

Submit Query

Other Resources:

- FPDSS Data Sources
- FAQ's
- Download
- Data Structure
- Administrative
- Contact

Fish and Wildlife Management (G)

- Assistance Program
- Conserving America's Fisheries (G)
- FWS Coastal Program (G)
- FWS Partners Program (G)

Barrier Removal Modeling

Model the removal of a barrier to fish passage. The modeling operation can model fish passage both upstream and downstream of the barrier.

- Model the removal of one or more barriers stored in the FPDSS's database.
- Model the removal of a barrier at a coordinate point. (Use this if you can't find the barrier in the FPDSS database).
- Read the modeling FAQ's.

Area Profile

Create a profile report about a geographic area. Information returned includes maps of the area, barrier summary information, and hydrology.

Featured Fish Passage Program Project

Project Name	Hardwood Creek, Michigan	
FWS Region:	Great Lakes	
Year Completed:	2000	
Description:	Flow of this creek was impeded at its only road/stream crossing on Chandler Dam Road. A small plastic culvert restricted the flow of the creek, backed up the water, and created a small impoundment that warmed the water, and washed ...	
Benefits:	The box culvert allows for fish passage to 3 miles of additional brook trout spawning habitat, can accommodate a 50-year flood, and allows the stream to regain unimpeded flow.	

[ContactUs](#) | [Privacy](#) | [Disclaimer](#)

What does the Fish Passage Decision Support System do?

The FPDSS is a management tool, that with GIS software, increases the capabilities of fisheries scientists to prioritize fish passage projects, identify critical areas, and make better management decisions for implementing projects. The many tools embedded in the FPDSS allows users to access data quickly using just a few simple hot buttons. Point-and-click operation is used wherever possible.



Old mill dam blocking fish passage. USFWS photo

The FPDSS will assist natural resource agencies and groups with education and outreach information regarding the problem and solutions for fish passage in the U.S.

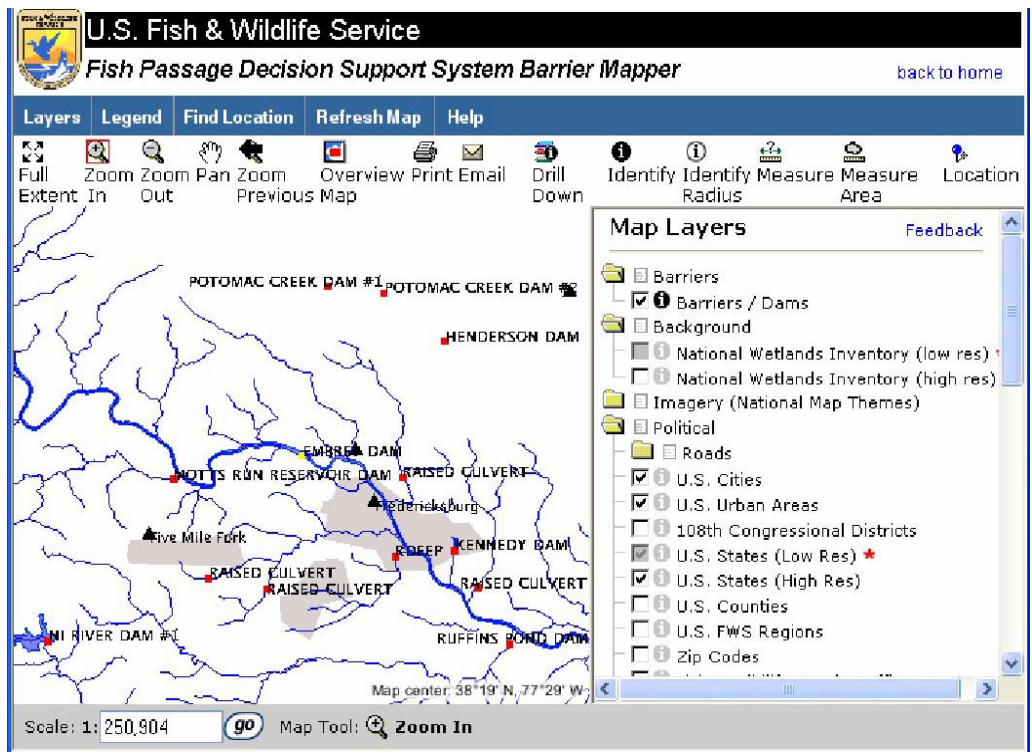
The Future of the Fish Passage Decision Support System

The National Fish Passage Program is cooperating with partners and other Fish and Wildlife Service programs to enhance the FPDSS and to incorporate other sources of information. The FPDSS currently includes such databases as the Army Corps of Engineers' National Inventory of Dams, 30 State dam databases and barriers from the Pacific States Marine Fishery Commission's StreamNet database. USFWS biologists are entering data from recent inventory projects, and data on dams, culverts, dikes, and irrigation diversions from numerous cooperating agencies and organizations are also being added on a continuous basis.

Additional partnerships are needed to expand the data layers within the FPDSS. The National Fish Passage Program is looking for access to databases that have barrier, fish, and habitat information. If you would like to cooperate with this important effort, please contact the National Fish Passage Coordinator:

For more information, contact:

Leslie Hartsell
 National Fish Passage Coordinator
 U.S. Fish and Wildlife Service
 Division of Fish and Wildlife
 Management and Habitat Restoration
 Branch of Fish and Wildlife
 Management Assistance
 4401 North Fairfax Drive, Suite 840
 Arlington, VA 22203
 703-358-1718
Leslie.Hartsell@fws.gov
<http://fisheries.fws.gov/fwsma/fishpassage/>
 U.S. Fish and Wildlife Service
 1 800-344-WILD
<http://www.fws.gov>



[home](#) > [modeling](#) > [results](#)

Barrier Removal Modeling - Results

Watershed Basin: CASS (4080205)

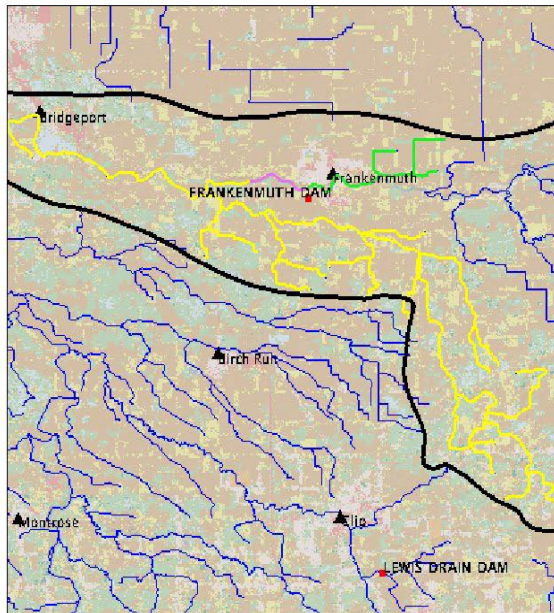
Barriers:

FRANKENMUTH DAM

Analysis

Metric	km	miles
Total length of stream affected:	123.55	76.78
Total length of stream opened for <u>upstream</u> passage:	31.41	19.52
Total length of stream opened for <u>downstream</u> passage:	90.95	56.51
Total length of stream opened for <u>upstream and downstream</u> passage:	1.20	0.75

Modeling Image:



Legend

■ barrier	+ removed barrier
— reach opened for upstream passage	— reach opened for downstream passage
— reach opened for both upstream and downstream passage	

More Info...

Interactive Mapper:

Open this location in the FPDSS interactive mapper. (The modeling coloration will not be visible).

Modeling Algorithm:

Read about how the FPDSS produces the modeling results.

Watershed profile:

Run the FPDSS watershed profile for watershed: CASS.

Go to the EPA Surf your watershed [EPA](#) page for this watershed.

National Hydrography Dataset (NHD):

The FPDSS barrier modeling capabilities depend on the quality of the National Hydrography Dataset (NHD [EPA](#)). Because the NHD contains data about the directionality of stream flow, the FPDSS can better understand barrier's position on a watershed.

Using the Results:

The result of a modeling operation is a first step to understanding the affect of increasing fish passage within a watershed. Factors such as the type of fish passage facility installed on the barrier, age of fish, and time of year all affect fish migration.

Learn more about specific Fish Passage Program restoration projects [EPA](#)

Finding Fish:

In order to identify fish that may live in this watershed, search one of the following websites:

- [FishBase](#) [EPA](#)
- [StreamNet](#) [EPA](#)
- [MARIS](#) [EPA](#)
- [CalFish](#) [EPA](#)