U.S. Fish & Wildlife Service

Alpena Fishery Resources Office
FY 2007 Station Activities

Aquatic Habitat Conservation and Management

Loss and alteration of aquatic habitats are principal factors in the decline of native fish and other aquatic resources and the loss of biodiversity. Seventy percent of the Nation's rivers have altered flows, and 50 percent of waterways fail to meet minimum biological criteria. The Alpena Fishery Resources Office in Alpena, Michigan addresses habitat conservation issues through the Habitat and Ecosystem Health Branch. The branch is involved with habitat restoration, the Partners for Fish and Wildlife Program, and fish passage issues. The accomplishments listed below provide examples of habitat related activities conducted by the Alpena FRO in Fiscal Year 2007 (October 2006-September 2007).

Michigan Stream Team Presentation

Submitted by Heather Rawlings
Fish and Wildlife Biologist

Biologist Heather Rawlings presented an overview of the Michigan Stream Team's objectives and goals on September 17, 2006 at the Michigan Department of Natural Resources (MDNR) Fisheries Division Annual Meeting. The meeting was held in Alpena, Michigan at the Alpena Combat Readiness Training Center, Michigan Air National Guard base. Approximately 40 biologists from the MDNR Fisheries Research Division and management unit supervisors from northern Michigan attended the meeting. The presentation was well-received, and the group requested an annual update from Michigan Stream Team representatives.

Completion of aquatic habitat restoration projects contributes toward the "Aquatic Habitat Conservation and Management" component of the Service's Fisheries Program Vision for the Future.

Partners for Fish and Wildlife 2006 Wetland Construction Complete

Submitted by Heather Rawlings
Fish and Wildlife Biologist

Construction on the final eight wetland sites scheduled for FY2006 was completed October 5, 2006 for the Alpena FRO Partners for Fish and Wildlife program. Six sites were located in Ogemaw

County on the property of two different landowners, and two sites were in Montmorency County on a single landowner's property. In all, 14 acres of wetland were restored or enhanced. Nine acres were located in open, fallow field, and five acres were restored to a wooded wetland.

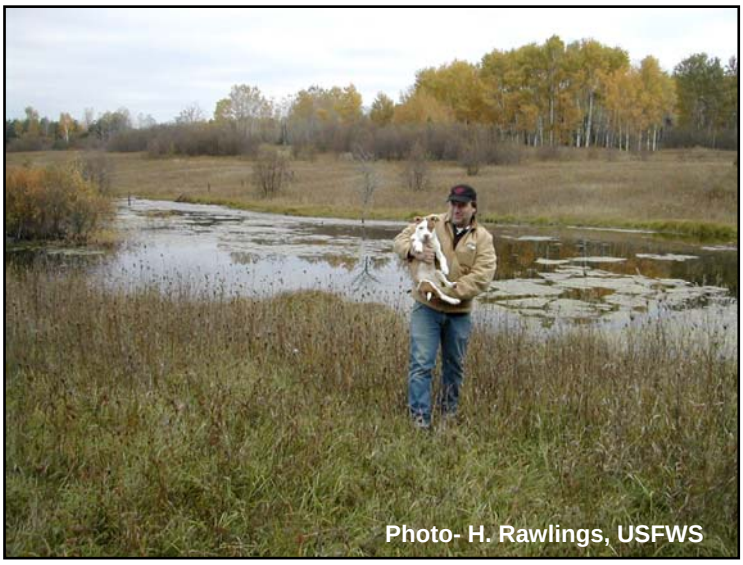


Photo- H. Rawlings, USFWS

In addition to the October wetland construction, five landowner visits were conducted, and three wetland sites were surveyed for potential construction in 2007. The Partners for Fish and Wildlife Program restores/enhances wetlands for the benefit of migratory birds, shorebirds, reptiles, and amphibians. Wetlands are shallow, with an average depth of approximately two feet. The Alpena FRO restored 88 total acres of wetland on 23 sites in FY2006.

Completion of aquatic habitat restoration projects contributes toward the "Aquatic Habitat Conservation and Management" component of the Service's Fisheries Program Vision for the Future.

Field Visits with the Conservation Resource Alliance

Submitted by Heather Rawlings
Fish and Wildlife Biologist

Biologist Heather Rawlings met with Chris Pierce of the Conservation Resource Alliance (CRA) on November 2, 2006 in Pellston, Michigan. The meeting took place at an erosion site on the East Branch of the Maple River, downstream from the University of Michigan Biological Station. The site is located on township property, and is a popular camping/fishing/access site. The meeting was to discuss logistics during the repair, and future potential projects. A MDEQ permit has been received by CRA for the erosion work, but heavy fall precipitation has stalled construction plans. Plans include building an access stairway, and using a combination of biologs, tree revetments and rock rip-rap to stabilize the toe of the erosion site. The upper portion of the site will be planted heavily with native grasses and brush

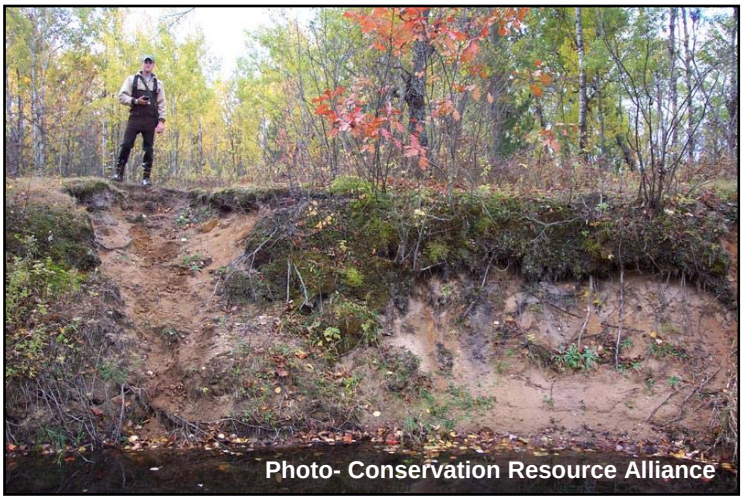


Photo- Conservation Resource Alliance

in the spring of 2007. The East Branch of the Maple River is a coldwater system that supports several species of trout, including the native brook trout, and the federally endangered Hungerford's crawling water beetle. Funding for the project is provided by the Service's Fish Habitat Restoration program, the Frey Foundation of Grand Rapids, private landowners along the Maple River, and labor will be provided by the Miller Van Wrinkle Chapter of Trout Unlimited. Three additional erosion sites will be repaired on the Maple River during the 2007 field season, locations to be determined.

The CRA is a private, not-for-profit organization based in Traverse City, Michigan, dedicated to maintaining the natural beauty and ecosystems of our land while simultaneously nurturing the economic vitality of northern Michigan. The Service has been partnering with CRA since 2003 on habitat restoration projects in northern Michigan. Completion of aquatic habitat restoration projects contribute toward the "Aquatic Habitat Conservation and Management" component of the Service's Fisheries Program Vision for the Future.

Greasey Creek Road Crossing Completed

Submitted by Susan Wells
Fishery Biologist

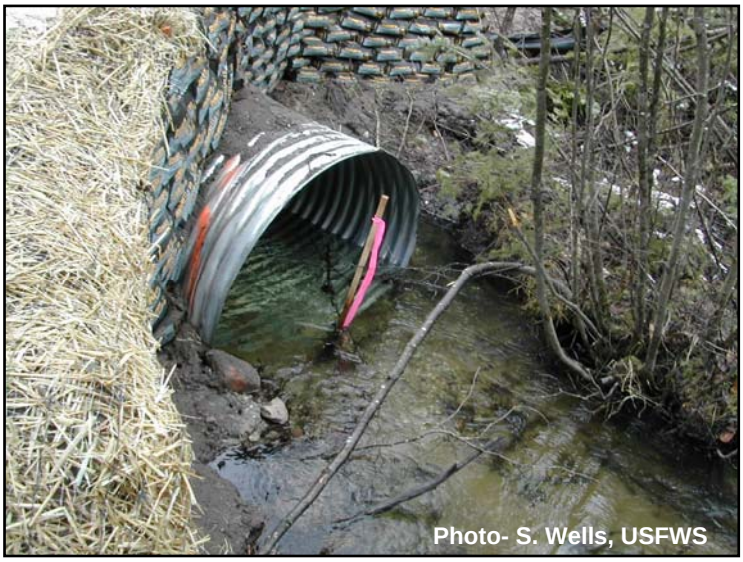


Photo- S. Wells, USFWS

On November 9, 2006, the Montmorency County Road Commission completed a culvert replacement at the Greasey Creek Road crossing on Greasey Creek in Northern Lower Michigan. The project identified an undersized and perched culvert that negatively impacted native brook trout passage in the Thunder Bay River Watershed. The culvert also contributed to ponding of water upstream causing water temperatures to warm. The project was completed by replacing the old inadequate culvert with a structure that allows for brook trout movement into the upper stretches of Greasey Creek, the headwaters of the Thunder Bay River. Replacement of the culvert opened up approximately 5 miles of aquatic habitat for native brook trout. Two brook trout swimming upstream through the new structure were witnessed by workers on site shortly after installation of the new structure. Oversight for project construction was provided by Alpena FRO Biologist Wells and Lisha Ramsdell from Huron Pines RC&D. Funding for this project was provided by the Region 3 Fish Passage Program, the Montmorency County Road Commission, and Huron Pines RC&D.

This is an example of collaboration between federal, state and local governments and watershed groups to enhance aquatic habitat which will benefit fish and wildlife resources including native

brook trout. This project addresses the Service's Fisheries Program Vision for the Future priority of "Aquatic Habitat Conservation and Management".

Thunder Bay Project Implementation Working Committee Meeting

Submitted by Aaron Woldt
Fishery Biologist

Fishery Biologist Aaron Woldt participated in a Working Committee meeting for the Thunder Bay Power Company Thunder Bay River Project Implementation. The Working Committee was created to assist Thunder Bay Power (TBP) and its parent company North American Hydro (NAH) in meeting the requirements of its Federal Energy Regulatory Commission (FERC) license. Biologist Woldt is the Service representative on the Working Committee.

The primary focus of the November 14, 2006 meeting was to review results of NAH's 2006 purple loosestrife, Eurasian watermilfoil, and erosion sites monitoring activities. In addition, the Working Committee also discussed NAH's water quality plan for 2007, an update on the project wildlife plan, a recent FERC potential failure mode analysis, and the proposed fishing pier at the Hubbard Lake site. The fishing pier issue has been ongoing for some time and involves moving the proposed structure to the opposite side of the river as initially planned. The proposed area across the road is primarily wetland, and feasibility of using this site will require input from Michigan DEQ.

The meeting was attended by member representatives from Michigan DNR, NAH, and the Service. In addition representatives from the Montmorency Conservation District, Thunder Bay Audubon Society, and Northeast Michigan Council of Governments also participated.

Service involvement in the TBP Working Committee provides opportunities to minimize or mitigate the impacts of habitat alteration on fish and other aquatic species caused by hydropower facilities in the Thunder Bay River system. This outcome is consistent with the "Aquatic Habitat Conservation and Management" priority of the Fisheries Program Vision for the Future.

Permit Applications, Surveying and 2007 Work Plans

Submitted by Heather Rawlings
Fishery Biologist

The beginning of the new year brought Northern Michigan a mild winter, and allowed Alpena FRO Partners for Fish and Wildlife Biologist Rawlings several more days to survey potential wetland restoration sites. Four potential wetland sites were surveyed on two private landowner properties in Alcona and Presque Isle Counties. Winter truly hit by the second week in January, which shut down the field season until April. Time then fell to drawing up projects and submitting permits for wetland restoration to the Michigan Department of Environmental Quality. Nine permits were

mailed to the landowners for submission during the month of January, and four additional sites that did not require a permit were drawn up and mailed out. On Friday, January 19, 2007 Rawlings met with Patrick Ertel from Huron Pines Resource, Conservation & Development (RC&D) to review river restoration work plans for the 2007 field season. Huron Pines RC&D and the Service work together on many river restoration projects throughout NE Michigan. 2007 projects include two road/stream crossing restoration projects in Otsego (AuSable River Watershed) and Montmorency Counties (Thunder Bay River Watershed), and stream bank erosion projects in the AuSable, Pine/VanEttan, Ocqueoc and Black River watersheds.

Planning of aquatic habitat restoration projects contributes toward the “Aquatic Habitat Conservation and Management” component of the Service's Fisheries Program Vision for the Future.

Huron Pines RC&D Annual Meeting

Submitted by Heather Rawlings
Fish and Wildlife Biologist

Biologist Heather Rawlings attended the Huron Pines Resource, Conservation and Development (RC&D) annual meeting in Hillman, Michigan on February 3, 2007. The meeting was held to showcase watershed restoration projects completed in the 2006 field season, partnerships created, and general activities of the RC&D. Resource agency reports were given by a number of groups including the Michigan Department of Environmental Quality, Michigan Department of Natural Resources, Natural Resource Conservation Service, U.S. Forest Service, and the U.S. Fish and Wildlife Service. Rawlings provided highlights of the Alpena FRO 2006 Partners for Fish and Wildlife and Fish Passage Programs field activities, outlined planned projects for 2007, and projects for which we have submitted proposals for funding through a number of Service sources. The Alpena FRO is working closely with Huron Pines RC&D on a number of large projects and initiatives for the 2007 field season.

Approximately 70 resource agency, local government and conservation organization personnel were updated and/or introduced to the Alpena FRO’s habitat restoration programs, and grant opportunities offered through the Service. Planning of aquatic habitat restoration projects contributes toward the “Aquatic Habitat Conservation and Management” component of the Service's Fisheries Program Vision for the Future.

Monitoring Fish Passage at the Potagannissing Dam Project

Submitted by Susan Wells
Fishery Biologist

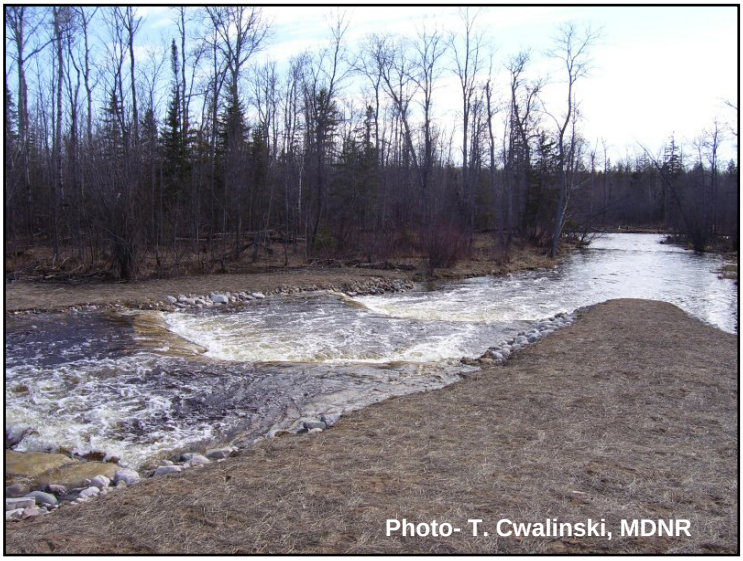


Photo- T. Cwalinski, MDNR

In September 2006, an old non-functioning fish ladder on the Potagannissing River was removed and the headwall of the dam completely removed. This small dam was located within 3 miles of the Harbor Island NWR in Potagannissing Bay. The Service's National Fish Passage funds assisted in removal of the structure. A series of four rock weirs were placed below the removed headwall to create a rock fish-ramp thereby reducing slope and creating appropriate resting pools for upstream migration of important native species, particularly northern pike which have been declining in this region.

On April 18. 2007, Biologist Wells assisted the Michigan Department of Natural Resources with post construction fish surveys above the Potagannissing Dam structure. Many marsh-like lakes exist upstream of this dam that historically provided ideal spawning habitat for northern pike before passage was blocked by the dam.

The MDNR spent 3 days sampling the system to determine if fish were able to pass the new weir structure installed the previous year. Walleye were found below the structure in cobble habitat using a backpack electrofisher; numerous white suckers were also captured in trapnets set above the structure along with a few northern pike. The MDNR attributed the low numbers of pike to the decrease in population in the system. Restoration projects, such as the installation of the weirs, were done and will continue to be used to enhance the pike population by allowing access to spawning and rearing habitats. Plans to continue sampling with the MDNR next year during the northern pike migration have been discussed along with adding additional parameters and developing a long term data set.
Partners for this project included the Michigan DNR who provided all of the equipment for the sampling along with the design, survey, and permit work for construction of the weirs, and the Drummond Island Sportsman's Club.

This is an example of collaboration between federal, state and local governments and watershed groups to enhance aquatic habitat which will benefit fish and wildlife resources including native northern pike. This project involved collaboration between many partners and addresses the Service's Fisheries Program Vision for the Future priority of "Aquatic Habitat Conservation and Management".

Celebrating Earth Day on the Ottawa National Wildlife Refuge

Submitted by Susan Wells
Fishery Biologist

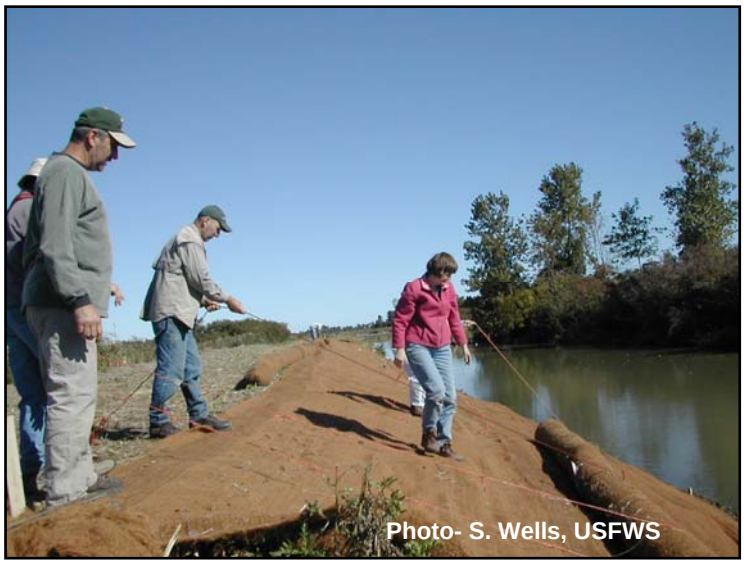


Photo- S. Wells, USFWS

On April 21, 2007, the Alpena Fisheries Resources Office (FRO) and Ottawa National Wildlife Refuge (NWR) hosted an Earth Day event that included a small scale habitat restoration project. This project is an extension of the National Public Lands Day event that was started in 2003. A group of volunteers applied bank stabilization techniques along one hundred and forty feet of a tributary to Crane Creek at the entrance of the new visitor's center. Crane Creek is a low gradient stream which flows through the refuge and empties into Lake Erie through a flooded river mouth. The creek provides habitat for migratory birds and Lake Erie fish species and is a vital link between the refuge and the lake. Bank stabilization techniques used in this project will enhance the habitat and reduce sedimentation into the creek without the use of large rock.

Soft engineering techniques were utilized for the project. Materials utilized for this project included coconut filter fabric, coir logs, and native live plants and seed mixes. The materials used are completely biodegradable, within a 5 year span, after the vegetation has been established. More than 1000 plants used for this project were grown over the winter by an avid refuge volunteer and were planted during this event.
Biologist Susan Wells and Refuge Operations Specialist Sara Mason planned this as a Earth Day event to allow people the opportunity to become involved in habitat management of a small portion of the refuge. Individuals involved with the project responded with positive attitudes towards the restoration project and enjoyed the opportunity for the hands on work. Many of the almost 40 volunteers also participated in the 2003 and 2004 National Public Lands Day event and plan on returning for the event in future years. This project provides an opportunity which is not usually offered to the public, and their efforts can be viewed by all when entering the refuge.

This accomplishment provided multiple resource outcomes by integrating educational and outreach opportunity with on the ground restoration. One hundred and forty feet of creek bank was stabilized while educating volunteers on the advantages of using soft engineering techniques. Approximately 37 volunteers participated in the event including members from the Ohio Waterfowlers Society. This project was collaboration between the Alpena FRO and Ottawa NWR and addresses multiple Fisheries Vision Priorities including Public Use and Aquatic Habitat Conservation and Management.

Touring Mullett Creek

Submitted by Heather Rawlings
Fish and Wildlife Biologist

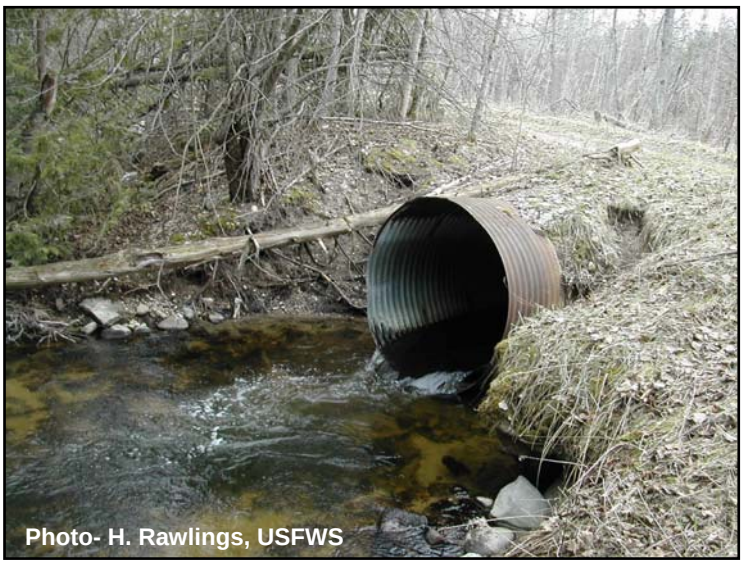


Photo- H. Rawlings, USFWS

On April 26, 2007 Tim Cwalinski (Fisheries Biologist, Michigan DNR), Perry Smeltzer (District Conservationist, NRCS), and Heather Rawlings toured the entire length of Mullett Creek. Mullett Creek is a small tributary of Mullett Lake (Emmet County), part of the Cheboygan River Watershed, and the Partners for Fish and Wildlife focus area in Northern Michigan. The Biologists spent the day traveling to all of the road crossings, walking reaches of the creek, and noting agricultural and erosional impediments found in the watershed. As recently as 15 years ago this small tributary was a noted brook trout stream. Recent events such as development, road-building and increased agricultural use have degraded the stream to a point at which brook trout presence is limited to the headwaters. A two-day electrofishing survey led by the Michigan DNR is scheduled for June 4-5 to gather some pre-restoration data. All three agencies have agreed to focus efforts on this tributary in the hopes of turning the stream around before the current impediments become a permanent situation

Awareness and baseline knowledge of the Mullett Lake tributary is the first step in proposing recovery efforts for Mullett Creek. Planning of aquatic habitat restoration projects contributes toward the “Aquatic Habitat Conservation and Management” component of the Service's Fisheries Program Vision for the Future.

Spotting the Massasaugas

Submitted by Heather Rawlings
Fish and Wildlife Biologist

The Eastern Massasauga rattlesnake is a rare species in Michigan, and is currently a candidate for listing on the Federal Endangered Species list. On May 11, 2007 during a site visit on a private landowner’s property in Alcona County, MDNR Landowner Incentive Program (LIP) Biologist Brian Piccalo and Service Biologist Heather Rawlings encountered four of these intriguing reptiles. Although massasaugas had been located on this property in the past, this was the first time Rawlings had seen the rattlesnake, and was the first time for Piccalo to see so many in one location. The snakes had apparently just emerged from their hibernaculum, and were located on a south-facing slope on transitional habitat between a coniferous swamp and a jack pine baron. It was a cool day,

with temperatures hovering around 50 degrees Farenheit, which kept the snakes lethargic (thank goodness). We had almost stepped on the snakes before we noticed them, which meant we walked this area with extreme caution. Piccalo was checking on a 2006 jack pine baron burn he had completed last fall, when we encountered the massasaugas.


Photo- H. Rawlings, USFWS

This site visit was initiated by Piccalo and the landowner to determine if there were any habitat restoration projects on the property in which the LIP and the Partners for Fish and Wildlife Programs could collaborate. The best potential site was a private road crossing that is both a sediment loading and fish passage problem. Currently the three culverts that are in place at the road crossing are compromising the integrity of a brook trout stream that is a tributary of the Thunder Bay River. Planning of aquatic habitat restoration projects contributes toward the "Aquatic Habitat Conservation and Management" component of the Service's Fisheries Program Vision for the Future.

Gingell Road Stream Crossing

Submitted by Susan Wells
Fishery Biologist

On June 4, 2007, the Otsego County Road Commission completed a culvert replacement at the Gingell Road crossing on Saunders Creek in Northern Lower Michigan. The project identified an undersized and perched culvert that negatively impacted native brook trout passage in the Black River Watershed. The culvert also contributed to ponding of water upstream causing water temperatures to warm. The project was completed by replacing the old inadequate culvert with a bottomless structure that allows for brook trout movement into the upper reaches of Saunders Creek, a headwater tributary to the Black River. Replacement of the culvert opened up approximately three miles of aquatic habitat

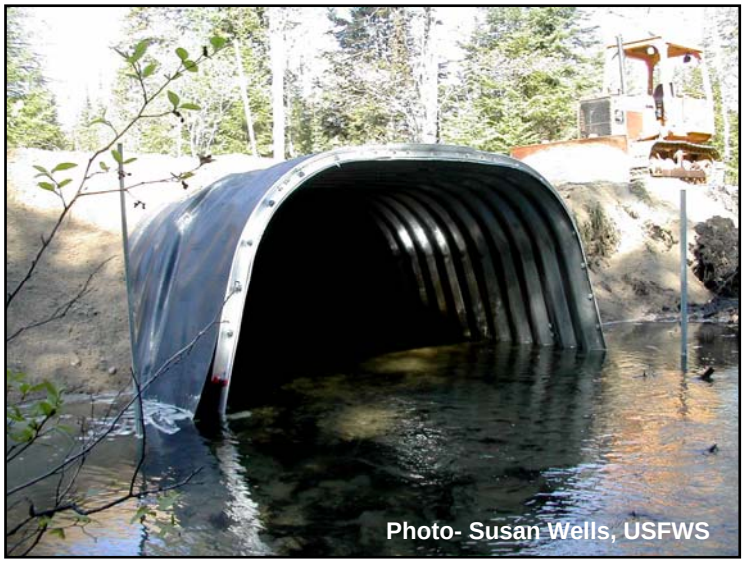


Photo- Susan Wells, USFWS

for native brook trout. Brook trout swimming upstream through the new structure was witnessed by workers on site during and after installation of the new structure. Oversight for project construction was provided by Alpena FRO Biologist Wells. Funding for this project was provided by the Region 3 National Fish Passage Program, the Otsego County Road Commission, and Trout Unlimited. Additional partners included Huron Pines RC&D, the Upper Black River Restoration Committee, and Michigan Department of Natural Resources.

This is an example of collaboration between federal, state and local governments and watershed groups to enhance aquatic habitat which will benefit fish and wildlife resources including native brook trout. This project addresses the Service's Fisheries Program Vision for the Future priority of "Aquatic Habitat Conservation and Management".

Mullett Creek Survey

Submitted by Heather Rawlings
Fish and Wildlife Biologist

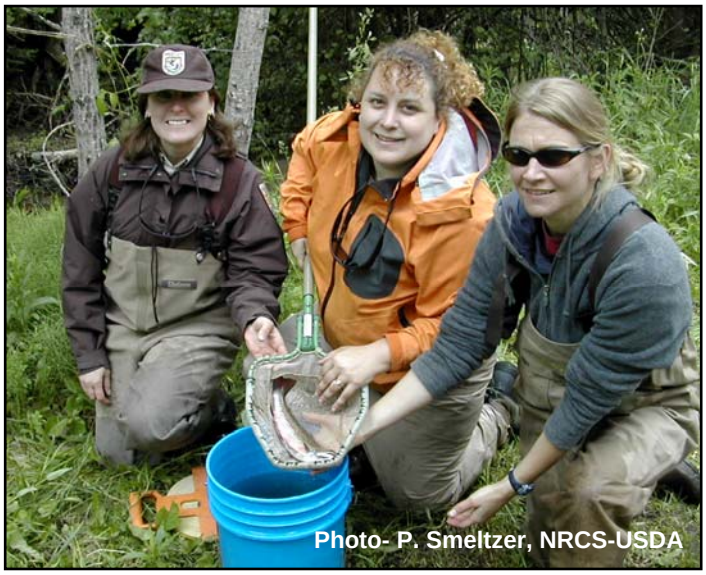


Photo- P. Smeltzer, NRCS-USDA

Mullett Creek, a tributary of Burt Lake (Cheboygan River Watershed) was surveyed by backpack electrofishers June 4-5, 2007 by personnel from the Michigan Department of Natural Resources-Fisheries (MDNR), Natural Resources Conservation Service (NRCS), a private landowner, and three Service personnel. This unique partnership stemmed from concern for this small, coldwater tributary which supports a healthy brook trout population. A MDNR electrofishing survey was not located in MDNR files, so there was no baseline data for this creek. Status of the brook trout fishery was unknown, and local landowners and natural resources personnel were concerned with the water quality of the creek. The Cheboygan River Watershed is a Partners for Fish and Wildlife Focus Area, and ranks in the highest level of concern for the Service Fisheries Program.

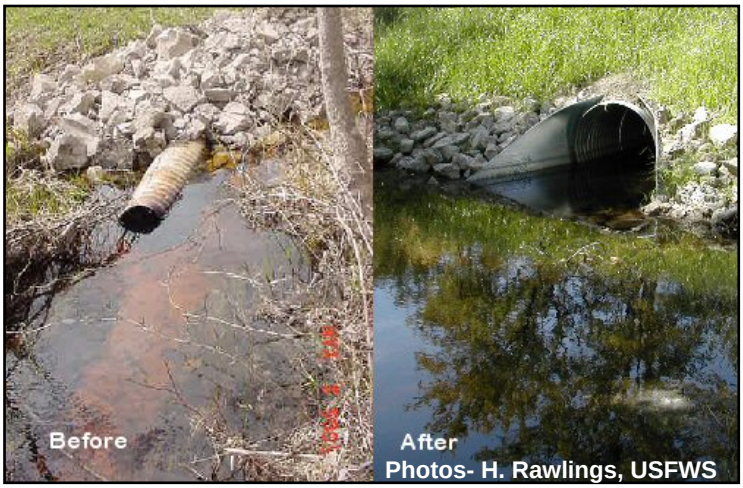
Five sites were chosen for electrofishing, both above and below road/stream crossings of concern. Personnel involved with the effort included Tim Cwalinski (MDNR, Fisheries), Perry Smeltzer (NRCS-USDA), Ron Tassava (private landowner), Heather Rawlings, Anjanette Bowen and Andrea Ania (Alpena FRO). The surveys revealed a creek with a fairly healthy brook trout population, with both fingerlings and large adult brook trout present, however large sediment loads were noted below several of the road/stream crossings. Fish passage is blocked at two of these crossings and is of concern at two additional sites. The next step in gathering baseline information is to complete a road-stream crossing inventory and to gather habitat data at the electrofishing sites. Habitat data

will be collected by the MDNR and the road-stream crossing inventory will be conducted by the NRCS and the Service.

Five sites were electrofished, and one additional site is planned for assessment in the fall. A road-stream crossing inventory will be completed for the watershed, and longitudinal profiles and cross-sections will be taken at each electrofishing site. Planning of aquatic habitat restoration projects contributes toward the "Aquatic Habitat Conservation and Management" and "Partnerships and Accountability" components of the Service's Fisheries Program Vision for the Future.

Mud Creek Road Crossing Improvement

Submitted by Heather Rawlings
Fish and Wildlife Biologist



Mud Creek is a small tributary that enters the northwest corner of Black Lake, a large inland lake in the Cheboygan River watershed (Cheboygan County, Michigan). One quarter of a mile before the creek enters the lake, Black River Road crosses the creek. The former culvert located at this crossing blocked fish passage and was inadequately sized. On July 9, 2007 this culvert was replaced with a six foot wide squashed culvert. This culvert was buried two feet into the streambed to allow for a false streambed, and the remaining opening can accommodate a 100-year storm event. The new structure allows for fish passage for one mile up Mud Creek, and into the 120 acre Mud Lake. The total cost for the project was $10,543. Funding was provided by the Alpena NFWCO's Partners for Fish and Wildlife Program ($2,500), the FishAmerica Foundation ($2,500), and the Cheboygan County Road Commission funded the remaining cost ($5,543), as well as providing their labor and equipment to install the larger culvert.

Completion of aquatic habitat restoration projects contributes toward the "Aquatic Habitat Conservation and Management" component of the Service's Fisheries Program Vision for the Future.

Cascade Dam Survey

Submitted by Susan Wells
Fishery Biologist

On July 19, 2007 Alpena FRO Biologist Susan Wells and Rick Westerhof, Green Bay FRO, assisted the Michigan Department of Natural Resources (MDNR), Chris Frieburger and Jim Francis, with the Cascade Dam survey on the North Branch of the Clinton River.

A complete geomorphic survey was conducted on the 1500 feet above the dam and 500 feet below the dam. The survey included pebble counts, a longitudinal profile, and 5 cross sectional profiles. Chris Frieburger from MDNR headed up the survey which was completed in one long day using two survey crews. The information gathered will be used to help plan for the removal of the dam in a matter that will not undercut the bank upstream or downstream of the site.

The survey is a vital component of the proposed removal of the dam to provide upstream fish passage. The headwaters of the Clinton River system provide valuable trout habitat as well as quality habitat for other native fish species. The Cascade Dam removal project will be submitted for funding in 2008 through the National Fish Passage Program.

This is an example of collaboration between federal and state governments and watershed groups to enhance aquatic habitat which will benefit fish and wildlife resources. This project involved collaboration between many partners and addresses the Service's Fisheries Program Vision for the Future priority of "Aquatic Habitat Conservation and Management".

The National Fish Passage Program and the Michigan Stream Team

Submitted by Susan Wells
Fishery Biologist

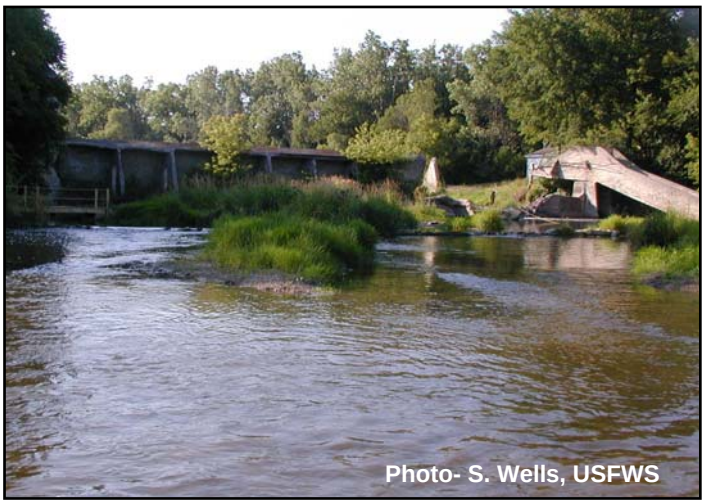
On August 22, 2007 Biologists Wells and Rawlings from the Alpena and Biologist Westerhof from the Green Bay National Fish and Wildlife Conservation Offices participated in the Michigan Stream Team Meeting held at the Ecological Services East Lansing Field Office in East Lansing, Michigan. The Michigan Stream Team is comprised of state, federal and local governments that work together to make a positive impact on fish passage and aquatic habitats in the State of Michigan.

Biologist Wells discussed the National Fish Passage Program (NFPP) and the potential for new funding in the President's budget associated with the Open Rivers Initiative (ORI) in 2008. This was a follow up discussion to the Stream Team meeting in July were the ORI was first introduced to the group. Project ideas and submission for the 2008 funding cycle were discussed and full project proposals from the Michigan DNR and Michigan DEQ will be submitted to Biologist Wells and Westerhof.

This is an example of collaboration between federal and state government and non profit agencies. Collaboration on aquatic habitat restoration efforts will enhance fish passage within Michigan. This project addresses the Service's Fisheries Program Vision for the Future priorities of "Aquatic Habitat Conservation and Management" and "Partnerships and Accountability".

Cascade Dam Survey Part 2

Submitted by Susan Wells
Fishery Biologist



On August 23, 2007, Alpena National Fish and Wildlife Conservation Office (NFWCO) Biologist Susan Wells assisted Michigan Department of Natural Resources (MDNR) Biologist Chris Frieburger with the Cascade Dam geomorphic survey on the North Branch of the Clinton River. This was a continuation of the survey conducted in July. Another site upstream of the dam was surveyed as a reference point for project evaluation upon completion and to be added to data being used to develop Regional Reference Curves for the State of Michigan by the Michigan Stream Team.

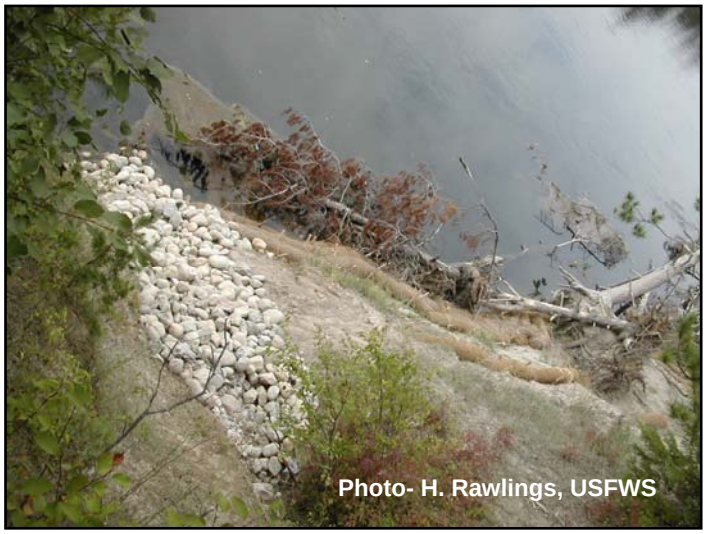
Frieburger led the survey which was completed in one long day. The information gathered during the survey is vital for the proposed removal of the dam to provide upstream fish passage. The headwaters of the Clinton River system provide valuable trout habitat as well as quality habitat for other native fish species. The Cascade Dam removal project will be submitted for funding in 2008 through the National Fish Passage Program.

This is an example of collaboration between federal and state government and non profit agencies. Collaboration on aquatic habitat restoration efforts will enhance fish passage within Michigan. This project addresses the Service's Fisheries Program Vision for the Future priorities of "Aquatic Habitat Conservation and Management" and "Partnerships and Accountability".

Repairing Erosion Sites on the Au Sable River

Submitted by Heather Rawlings
Fish and Wildlife Biologist

Two stream bank erosion sites on the Au Sable River were repaired on the private properties of two landowners in Oscoda and Crawford Counties, Michigan during the summer of 2007. The repair of these sites was coordinated with many partners, and is part of a larger effort to curb non-point source pollution in the Au Sable River watershed. The Service Partners for Fish and Wildlife (PFW) Biologist, Heather Rawlings, was part of a watershed team that identified problem sites, prioritized work actions, secured necessary funding and implemented the restoration projects.



The first site, located on the property of Mercy Hospital in Grayling was repaired with a combination of rock rip-rap, biologs, tree revetments and multiple plantings of shrubs and native grasses. This site, 400 feet in length, was repaired with labor from the Au Sable Watershed work crew and volunteers from the Headwaters Chapter of Trout Unlimited. The site was repaired on the weekend of June 2, 2007.

The second site was a segment of stream bank, 1200 feet long and 50 feet high, located just downstream of the Mio Dam in Mio. This site required additional coordination since half of it is located on private land and half is on U.S. Forest Service (USFS) land. PFW funds were used on private land and supported by additional partner funding on the federal land. This large site was repaired in stages. In the fall of 2006 large woody debris (whole trees) were placed at the toe of the site by helicopter. During the week of August 27, 2007, a combination of biologs, rock rip-rap and biolog terraces were installed by the Au Sable River work crew, the Headwaters Chapter of Trout Unlimited and personnel from Huron Pines RC&D, the USFS, and the Service. Vegetation was planted to stabilize eroded sections of the site on September 12, 2007. This site will be monitored for many years to come to ensure its continued healing.

This project will benefit interjurisdictional fish, primarily the brook trout. By controlling erosion and sediment loading into the stream, the number one pollutant of northern Michigan streams, we are helping to increase habitat quality and improve spawning opportunities for native fish. While the sites are not located in the Northern Michigan Stream focus area for the PFW Program, they are within an area identified in a locally driven watershed conservation plan through a 319 grant, and on a nationally renowned trout stream. In addition to improving the habitat value, restoration projects on the Au Sable help improve the recreational value of the stream, which is critical to the local economy.

This project is representative of PFW stream projects in northern Michigan, through which we can assist with, and add to, locally lead watershed conservation efforts and in the process benefit Service trust species. Completion of aquatic habitat restoration projects contributes toward the "Aquatic Habitat Conservation and Management" component of the Service's Fisheries Program Vision for the Future.

Repairing Erosion on the Pine River

Submitted by Heather Rawlings
Fish and Wildlife Biologist

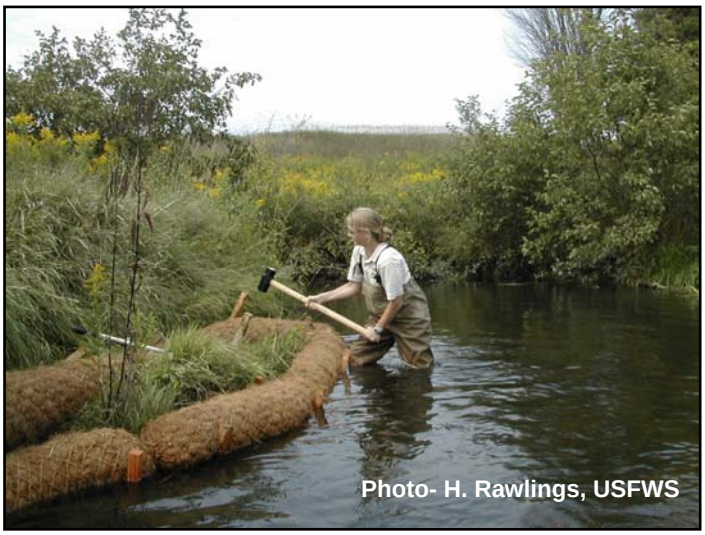


Photo- H. Rawlings, USFWS

The Pine River/Van Etten Lake Watershed drains approximately 187,000 acres or 292 square miles of land within Alcona and Iosco Counties, Michigan. Approximately 33 percent of the land in the watershed is part of the Huron-Manistee National Forest. The West and South Branches of the watershed are quality coldwater fisheries habitat for brook, brown, and rainbow trout, as are the headwaters of the Main Branch. A Stream Bank Erosion Inventory was completed in September 2002, and included in the "Pine River/Van Etten Lake Watershed Management Plan", Huron Pines Resource Conservation and Development Council, Inc, February 2003. This plan identified 36 erosion sites within the watershed, with four sites ranked as severe, 17 ranked as moderate, and 15 ranked as minor.


Photo- H. Rawlings, USFWS

Two of the stream bank erosion sites listed in the inventory are located on the property of Walt Joslin, on the East Branch of the Pine River. On September 5, 2007 these two sites were repaired with volunteer assistance from the Pine/Van Etten Watershed Restoration Committee, a local chapter of Trout Unlimited, Huron Pines Resource, Conservation & Development and Biologists Rawlings and Ania from the Alpena NFWCO. The stream bank erosion sites were repaired utilizing

bioengineering techniques such as biologs, vegetative plantings, geotextile fabric wraps, and tree revetments. The larger site was constructed to create a 3:1 slope by an excavator to assist in the stabilization of the stream bank. These sites serve as demonstration projects within the watershed.

The Alpena NFWCO's Partners for Fish and Wildlife Program provided $5,000 toward the cost of repairs, and Huron Pines Resource, Conservation & Development matched Service funding with another $5,000 to complete the project. Funding went toward the purchase of materials and labor and transportation for the work crew.

Repair of these erosion sites benefited the aquatic ecosystems in the East Branch of the Pine River by reducing the sediment load currently found in the waterways. Five hundred feet of riparian habitat were improved, and five miles of in-stream habitat benefited due to repairs at these sites. Both coldwater and coolwater fish species benefit from the riparian and in-stream soil stabilization including such species as brook trout, rainbow trout, brown trout, yellow perch, and northern pike. This effort is consistent with and supportive of the "Aquatic Habitat Conservation and Management" priorities of the Service Fisheries Program Vision for the Future.

For more information about Alpena FRO programs and activities contact us at:

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