U.S. Fish & Wildlife Service

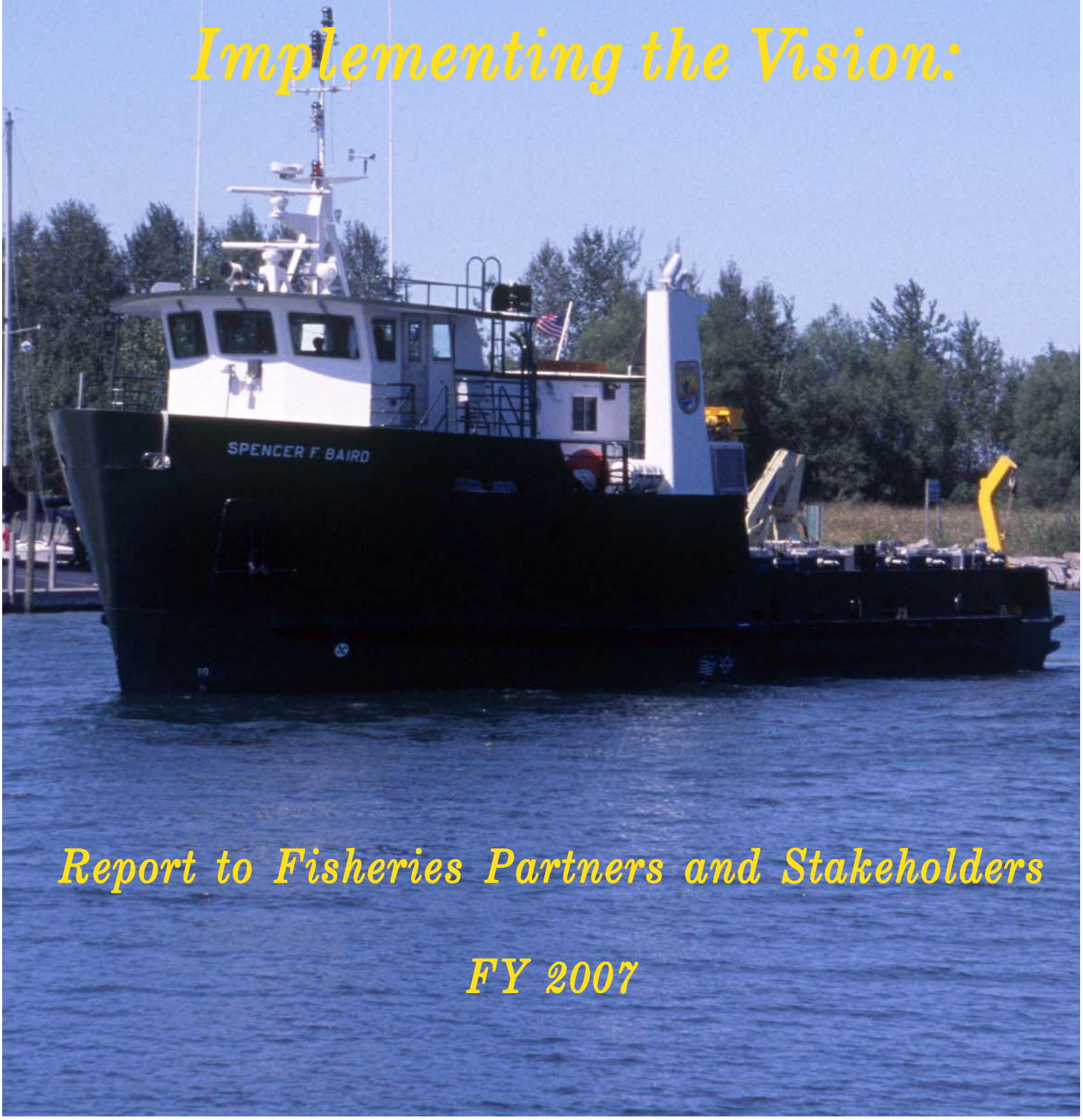
Midwest Region

(Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, Wisconsin)

CONSERVING AMERICA'S fisheries

U.S. Fish & Wildlife Service

Implementing the Vision:



Report to Fisheries Partners and Stakeholders

FY 2007

Midwest Region

Message from the Assistant Regional Director for Fisheries

The Fisheries Program in the Midwest Region 3 (Great Lakes – Big Rivers) is committed to the conservation of our diverse aquatic resources and the maintenance of healthy, sustainable populations of fish that can be enjoyed by millions of recreational anglers. To that end, we are working with the States, Tribes, other Federal agencies and our many partners in the private sector to identify, prioritize and focus our efforts in a manner that is most complementary to their efforts, consistent with the mission of our agency, and within the funding resources available.

At the very heart of our efforts is the desire to be transparent and accountable and, to that end, we present this Region 3 annual report *Implementing the Vision: Report to Fisheries Partners and Stakeholders - FY2007*. This report captures our commitments from the *Region 3 Fisheries Program Operational Plan Fiscal Year 2007* and documents our efforts to follow through on those commitments.

This document cannot possibly capture the myriad of activities that are carried out by any one station in any one year, by all of the dedicated employees in the Fisheries Program, but, hopefully, it provides a clear indication of where our energy is primarily focused. This is a work in progress and we welcome your feedback on not only how to improve this document, but also on how we can better conserve all of our aquatic resources and recreational fishing opportunities. Thank you for taking the time to review this document and your efforts to help conserve our precious aquatic resources.

Nicole Alt

Acting Assistant Regional Director for Fisheries

Introduction

The Fisheries Program of the U.S. Fish and Wildlife Service (Service) has played a vital role in conserving and managing fish and other aquatic resources since 1871. Today, the Fisheries Program is a critical partner with States, Tribes, other governments, other Service programs, private organizations, public institutions, and interested citizens in a larger effort to conserve these important resources. In 2002, working with its many partners in aquatic conservation through the Sport Fishing and Boating Partnership Council's Fisheries Steering Committee, the Service completed its strategic vision for the Fisheries Program: "Conserving America's Fisheries, U.S. Fish and Wildlife Service Fisheries Program, Vision for the Future." The Vision includes goals, objectives, and action items on a national scale for the Fisheries Program.

The Midwest Region (Great Lakes/Big Rivers) *Implementing the Vision: Report to Fisheries Partners and Stakeholders - FY2007* is an extension of the Vision, describing more specifically the activities that the Regional Fisheries Program implemented in Fiscal Year 2007. This accomplishment report addresses the commitments from the operational plan. The Fisheries Program and its partners and stakeholders recognize that responsibilities for managing and conserving many fish and other aquatic resources are shared, and overall success is contingent upon the combined knowledge, resources and commitment of each party. Therefore, the Region views this accomplishment report as a general contract between us and our partners and stakeholders. Specific species and habitat targets are identified in individual species management plans. For more information about management plans or for a listing of plans, please contact your local office or the Regional Office (612-713-5111).

List of Acronyms - Page 90

Inside the Fisheries accomplishment report

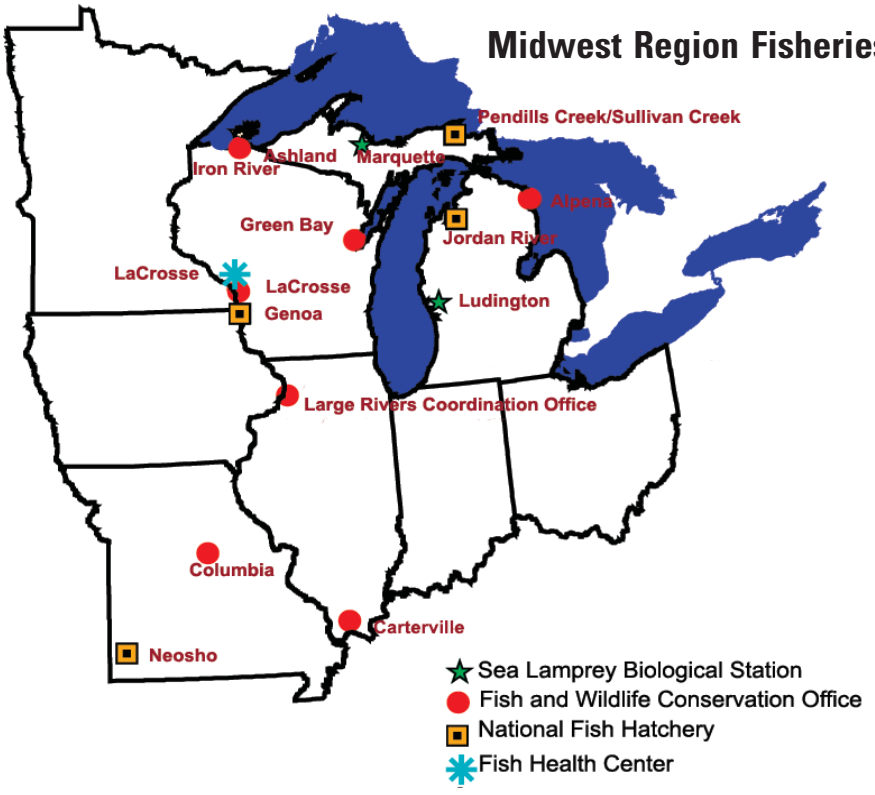
Midwest Region Fisheries Divisions

National Fish Hatcheries
The Region's National Fish Hatcheries primarily focus on native fish restoration/rehabilitation by stocking fish and eggs, such as pallid and lake sturgeon and by developing and maintaining brood stocks of selected fish strains, such as lake trout and brook trout. Hatcheries also provide technical assistance to other agencies, provide fish and eggs for research, stock rainbow trout in fulfillment of federal mitigation obligations and assist with recovery of native mussels and other native aquatic species.

National Fish and Wildlife Conservation Offices
National Fish and Wildlife Conservation Offices conduct assessments of fish populations to guide management decisions, perform key monitoring and control activities related to invasive, aquatic species; survey and evaluate aquatic habitats to identify restoration/rehabilitation opportunities; play a key role in targeting and implementing native fish and habitat restoration programs; work with private land owners, states, local governments and watershed organizations to complete aquatic habitat restoration projects under the Service's Partners for Fish and Wildlife and the Great Lakes Coastal Programs; provide coordination and technical assistance toward the management of interjurisdictional fisheries; maintain and operate several key interagency fisheries databases; provide technical expertise to other Service programs addressing contaminants, endangered species, federal project review and hydropower operation and re-licensing; evaluate and manage fisheries on Service lands; and, provide technical support to 38 Native American tribal governments and treaty authorities.

Sea Lamprey Biological Stations
The Fish and Wildlife Service is the United States Agent for sea lamprey control, with two Biological Stations assessing and managing sea lamprey populations throughout the Great Lakes. The Great Lakes Fishery Commission administers the Sea Lamprey Management Program, with funding provided through the U.S. Department of State, U.S. Department of the Interior, and Fisheries and Oceans Canada.

Fish Health Center
The Fish Health Center provides specialized fish health evaluation and diagnostic services to federal, state, tribal and private hatcheries in the region; conducts extensive monitoring and evaluation of wild fish health; examines and certifies the health of captive hatchery stocks; and, performs a wide range of special services helping to coordinate fishery program offices and partner organizations.



Conserving America's Fisheries

Fisheries Program Vision for the Future

Region 3 Focus Areas

1. Partnerships and Accountability

Partnerships are essential for effective fisheries conservation. Many agencies, organizations, and private individuals are involved in fisheries conservation and management, but no one can do it alone. Together, these stakeholders combine efforts and expertise to tackle challenges facing fisheries conservation. The success of these partnerships will depend on strong, two-way communications and accountability.

2. Aquatic Species Conservation and Management

The Fisheries Program maintains and implements a comprehensive set of tools and activities to conserve and manage self-sustaining populations of native fish and other aquatic resources. These tools and activities are linked to management and recovery plans that help achieve restoration and recovery goals, provide recreational benefits, and address Federal trust responsibilities. Sound science, effective partnerships, and careful planning and evaluation are integral to conservation and management efforts.

3. Aquatic Invasive Species

Aquatic invasive species are one of the most significant threats to fish and wildlife and their habitats. Local and regional economies are severely affected with control costs exceeding $123 billion annually. The Fisheries Program has focused its efforts on preventing introductions of new aquatic invasive species, detecting and monitoring new and established invasives, controlling established invasives, providing coordination and technical assistance to organizations that respond to invasive species problems, and developing comprehensive, integrated plans to fight aquatic invasive species

4. Public Use

As the population in the United States continues to grow, the potential for adverse impacts on aquatic resources, including habitat will increase. At the same time, demands for responsible, quality recreational fishing experiences will also increase. The Service has a long tradition of providing opportunities for public enjoyment of aquatic resources through recreational fishing, habitat restoration, and education programs and through mitigating impacts of Federal water projects. The Service also recognizes that some aquatic habitats have been irreversibly altered by human activity (i.e. - dam building). To compensate for these significant changes in habitat and lost fishing opportunities, managers often introduce non-native species when native species can no longer survive in the altered habitat.

5. Cooperation with Native Americans

Conserving this Nation's fish and other aquatic resources cannot be successful without the partnership of Tribes; they manage or influence some of the most important aquatic habitats both on and off reservations. In addition, the Federal government and the Service have distinct and unique obligations toward Tribes based on trust responsibility, treaty provisions, and statutory mandates. The Fisheries Program plays an important role in providing help and support to Tribes as they exercise their sovereignty in the management of their fish and wildlife resources on more than 55 million acres of Federal Indian trust land and in treaty reserved areas.

6. Leadership in Science and Technology

Science and technology form the foundation of successful fish and aquatic resource conservation and are used to structure and implement monitoring and evaluation programs that are critical to determine the success of management actions. The Service is committed to following established principles of sound science.

7. 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.

8. Workforce Management

The Fisheries Program relies on a broad range of professionals to accomplish its mission: biologists, managers, administrators, clerks, animal caretakers, and maintenance workers. Without their skills and dedication, the Fisheries Program cannot succeed. Employees must be trained, equipped and supported in order to perform their jobs safely, often under demanding environmental conditions, and to keep current with the constantly expanding science of fish and aquatic resource management and conservation.

The vision of the Service's Fisheries Program is working with partners to restore and maintain fish and other aquatic resources at self-sustaining levels and to support Federal mitigation programs for the benefit of the American public.

Implementing this vision will help the Fisheries Program do more for aquatic resources and the people who value and depend on them through enhanced partnerships, scientific integrity, and a balanced approach to conservation.

The *Implementing the Vision: Report to Fisheries Partners and Stakeholders - FY2007* is based on the *Fisheries Program Vision for the Future*. This document sets forth specific performance measures that will be used to evaluate how well the Region 3 Fisheries program accomplishes its mission. The performance measures are focused on outcomes and meaningfully reflect the purpose of the Program. The plan describes how the goals and objectives identified in the Vision will be implemented in Region 3, and provides the specific target level of accomplishment for performance measures.

Following the format of the Vision, this plan is structured to enable straightforward and realistic measurement of implementation and performance. Under each focus area, the Vision provides goals that express what the Program will strive to achieve, and each of the eleven goals is linked to "Strategic Goals," "End Outcome Goals," and "Intermediate Strategies" from the Department of the Interior's (DOI) Strategic Plan to communicate the interrelationship and shared vision from the Fisheries Program level to the Department

Goal/Actual Accomplishment for FY 2007 Performance Measures (Fisheries Strategic Plan v 11) **Partnerships and Accountability**	Regional Fisheries Goal	Genoa NFH Goal	Iron River NFH Goal	Jordan River NFH Goal	La Crosse FHC Goal	La Crosse FRO Goal	Pendills Creek NFH Goal	Neosho NFH Goal
Number of NFHS Facilities with friends groups	5/5	1	1	1	1	1	1	1
Number of recreation areas with community partnerships - NFHS	5/5	1	1	1	0	0	1	1

Partnerships and Accountability

Partnerships

-GLFC

Sea Lamprey Control representatives report on sea lamprey control activities at annual meetings throughout the Great Lakes.

Partnership Goal: Open, interactive communication between the Fisheries Program and its partners.

Our primary focus is on developing and improving relationships with our stakeholders and partners and to strengthen government, Tribal, and non-governmental relationships in the Great Lakes-Big Rivers Region to promote collaborative conservation strategies for conserving aquatic resources.

Objective - Develop and improve long-term partnerships with States, Tribes, other Federal agencies, non-governmental organizations, and other Service Programs to develop collaborative conservation strategies for aquatic resources.

Our Commitment

– **The Fisheries Program will:**

- Initiate frequent informal communications with state, tribal, Federal, non-governmental organizations, partners, and other programs of the Service to identify and resolve aquatic resource management problems, explore new opportunities for cooperative conservation, prepare interagency fish and wildlife management plans, and maintain productive working relationships.
- Participate in meetings held by partners to broaden the Fisheries program's perspective and appreciation of the range of issues collectively faced by resource managers.

- Work with the Mississippi Interstate Cooperative Resources Association (MICRA), the Great Lakes Fishery Commission, the Upper Mississippi River Conservation Committee, and the Missouri River Natural Resources Committee to conserve native species and fish communities.
- Work with the Great Lakes Commission in monitoring the state of the Great Lakes and restoring environmental conditions that will support healthy fish and wildlife populations and habitats, participate in the preparation and revision of Lakewide Management Plans (LaMP) through the Binational Program, and participate in the State of the Lakes Ecosystem Conference (SOLEC).
- Support Executive Order 13340 and the Great Lakes Collaboration of National Significance, through field activities and participation in the Great Lakes Strategy Teams, with special emphasis on the Habitat and Species Team and the Aquatic Invasive Species Team.
- Work with various task forces and committees to restore aquatic resources in the Midwest.

"…RO Fisheries requested each state and tribe in the Great Lakes Basin to nominate fisheries and wildlife representatives to the Great Lakes Fish and Wildlife Restoration Proposal Review Committee (PRC) - coordinated the formation of the new PRC (with 24 state and tribal representatives) as authorized under the Great Lakes Fish and Wildlife Restoration Act of 2006…"

"…Alpena NFWCO worked through the TFC and Executive Council to calculate and assign safe harvest limits for lake trout and lake whitefish stocks utilized by state and tribal fisheries in Northern Lake Huron; worked with the Michigan DNR and USGS to assess the near-shore fish community in the Detroit River International Wildlife Refuge and in the St. Clair River; worked with partners to monitor the status of lake trout and to restore populations and habitat through interagency plans for Lake Huron, and led efforts for the fourth revision of the Lake Huron Lake Trout Study Plan; worked with partners to monitor the status of lake sturgeon and to restore populations and habitat through interagency plans for the St. Marys River, Lake Huron, Lake Erie, and connecting waters of the Huron-Erie Corridor..."

"…Ashland NFWCO worked with the Michigan DNR, CORA and the five 1836 Treaty Tribes to identify, assess, and reduce threats to lake whitefish, lake trout, walleye, and other stocks targeted by fisheries in the 1836 Treaty waters of Lake Superior; participated in an annual meeting of the Joint Fishery Assessment Steering Committee held at the Lac Courte Oreilles Indian Reservation - assessment data collected from spring/summer/fall surveys were presented as well as 2007 assignments and projected budget; assisted the Great Lakes Indian Fish and Wildlife Commission (spring and fall) with walleye population surveys…"

"…Carterville NFWCO participated in a coordination meeting with the Illinois DNR and other Fish and Wildlife Service offices in Illinois to discuss collective efforts/strategies to implement the Illinois State Wildlife Action Plan - scheduling conflicts prevented traveling to a similar meeting with Indiana - a meeting with Ohio is slated for fall 2007; participated in meetings of the MICRA paddlefish and sturgeon subcommittee to discuss issues relevant to cooperative management and completed a draft Upper Mississippi River Sub-basin Paddlefish Management Plan that was provided to our state partners within MICRA for further development; participated in multi-agency meetings of the River Resources Action Team, Middle Mississippi R. Partnership, and Upper Mississippi R. Coordinating Council; increased support for aquatic resources by visiting two local members of Congress to discuss Asian carp, habitat restoration, and other issues that we face…"

"…Columbia NFWCO collected and provided biological data on shovelnose sturgeon to the Missouri Department of Conservation (MDC) for stock assessment; provided assistance to Ohio State University to develop a protocol and standardized datasheet and collect genetic tissue samples on blue and flathead catfish, glochidia hosts, throughout the range of the mapleleaf mussel (*Quadrula* spp.); collected and provided biological data on lake sturgeon to the Missouri Department of Conservation for stock assessment; worked with University of Missouri-Columbia and the Missouri Cooperative Fish and Wildlife Unit to provide biological data on paddlefish in the Osage and Lower Missouri rivers to the Mississippi Interstate Cooperative Resource Association Paddlefish/Sturgeon Committee for stock assessments…"

Partnerships and Accountability

"…Genoa National Fish Hatchery (NFH) played an integral role as a member on the technical committee of the Ohio River Aquatic Restoration project - this team was assembled to coordinate on the ground restoration efforts on the Ohio River after a chemical spill wiped out nearly 10 miles of fish and mussel populations - work was initiated by the technical committee at the hatchery in 2007, with host fish identification occurring and on the ground restoration efforts expected to be started in FY2008.

"…Green Bay NFWCO worked cooperatively with the Wisconsin DNR to assess the status of yellow perch populations in Green Bay, Lake Michigan, using models and data analysis; worked with the Michigan DNR, CORA and the five 1836 Treaty Tribes to identify, assess and reduce threats to lake whitefish, walleye and other stocks targeted in fisheries of the 1836 Treaty waters of Lake Michigan; worked with partners to monitor the status of lake trout in Lake Michigan, revised the lake trout rehabilitation plan and restored populations and habitat through coordinated interagency actions; worked with partners to monitor the status of lake sturgeon in Lake Michigan, developed a rehabilitation plan and restored populations and habitat through coordinated interagency actions…"

Spotlight on Partnerships

Successful international partnerships in the Great Lakes have included restored fish populations, protected habitats, and enhanced recreational fisheries. Partners in the Great Lakes include 8 states, 30 tribes, the Province of Ontario, Federal agencies in the U.S. and Canada, non-governmental organizations, industry, and international organizations like the Great Lakes Fishery Commission. Since its formation in 1954, the Commission has looked to the Service as a partner in controlling the invasive sea lamprey and supporting the restoration and maintenance of the $4-6 billion Great Lakes sport fishery. These partnerships restored lake trout in Lake Superior, one of the world's largest bodies of freshwater.

Through the Great Lakes Fish and Wildlife Restoration Act, the Service is authorized to implement fish and wildlife restoration projects and other activities of regional importance in the Great Lakes basin. Since 1998, 77 restoration projects totaling $7.4 million — including $4.4 million in Federal funds — have been implemented. More than 60 organizations have contributed $3 million in matching partner support.

Aquatic resources in the United States are in decline, and habitat destruction and modification is a principal culprit. National conservation leaders agree something must be done, and have endorsed the National Fish Habitat Action Plan to harness the energies, expertise, and existing partnerships of government, Tribes, academia, industry, and nongovernmental organizations. The Plan will foster geographically-focused, locally driven, and scientifically based partnerships that will work together to protect, restore, and enhance aquatic habitats and reverse the decline of fish and aquatic species. The Fish and Wildlife Service is a key Federal partner in implementing the National Fish Habitat Action Plan, along with States, Tribes, other Federal agencies, conservation organizations, and industry.

Partnerships and Accountability

-USFWS photo by Robert Elliott

Members of the Fish and Wildlife Service's Great Lakes Basin Ecosystem Team Lake Sturgeon Committee, with assistance from a steering committee of several partner representatives, held a third Great Lakes Lake Sturgeon Coordination meeting in Sault Ste. Marie, Michigan.

-USFWS

Fish and Wildlife Service biologists and volunteers from Trout Unlimited, Northland College, and Ashland, Wisconsin, area schools stocked brook trout in the Whittlesey Creek watershed.

-USFWS by David Hendrix

The new pallid sturgeon culture building at the Neosho National Fish Hatchery nears completion. Culture tanks are one of the next additions to the building.

"…Iron River NFH had many contacts coordinating strategies during FY2007 (Fiscal Year) - contacts include Keweenaw Bay Indian Community, Grand Portage Indian Community, Red Lake Indian Community, Red Cliff Tribe, Wisconsin DNR, Michigan DNR, Minnesota DNR, Bayfield County, Trout Unlimited, The Federation of Fly Fishers, Northland College, University of Wisconsin Superior, Purdue University, Northern Michigan University, the Duluth Aquarium, the Duluth Zoo, and numerous Fish and Wildlife Service partners…"

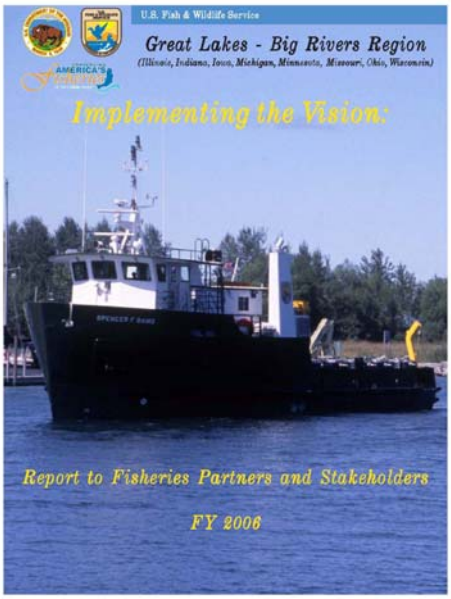
"…Jordan River NFH continued to partnership with Michigan DNR Charlevoix Fisheries Station providing housing to short term workers who in turn volunteer at the hatchery one day per week – due to budget constraints, the Michigan DNR didn't hire many short term workers, so there was no need for the housing this summer; however, the partnership still exists, the lines of communication are open and the partnership has advanced…"

"…La Crosse Fish Health Center (FHC) partnered with state (Wisconsin DNR, Illinois DNR, Minnesota DNR, Ohio DNR, Michigan DNR, University of Wisconsin), Federal (U.S. Geological Survey, National Park Service, other Fish and Wildlife Service offices) and tribal (Red Cliff Tribal Fish Hatchery (TFH), La du Flambeau TFH, Red Cliff TFH, Keweenaw TFH and CORA) to address control and surveillance of serious invasive fish pathogens like viral hemorrhagic septicemia virus, spring viremia of carp virus, largemouth bass virus and others; also received assistance from numerous agencies in support of the National Wild Fish Health Survey…"

"…Neosho NFH worked closely with states, tribes, other Federal agencies, non-governmental organizations, and other Fish and Wildlife Service programs through-out the year; produced 127,214 fish (5,795 pounds) for in-trade production with our state partners…"

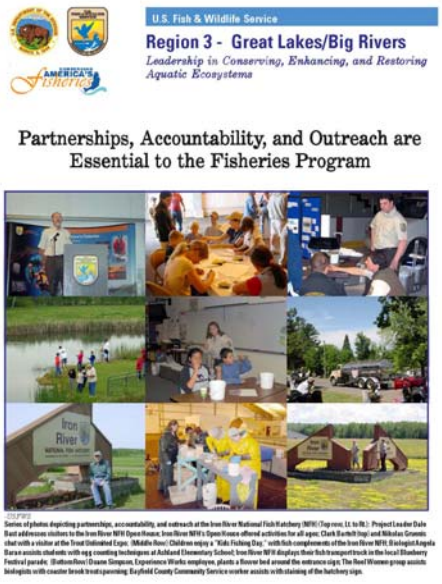
"…Pendills Creek/Sullivan Creek NFH Complex continued to foster improved relationships with states, tribes, other Federal agencies and non-governmental organizations (NGO); strengthened our relationship with the State of Michigan by working directly with Michigan Department of Environmental Quality personnel and Division of Natural Resources; continue to foster better relations with CORA and the Bay Mills Indian Community; continued work with the U.S. Forest Service to develop a new Memorandum of Understanding (MOU) to foster better communication and understanding of our operations; continue to support our Friends Group, the *Friends of Pendills Creek Hatchery*, with their efforts to improve the hatchery public access site.

Partnerships and Accountability



-USFWS

The Midwest Regional Fisheries program publishes an accomplishment report annually.



-USFWS

The Midwest Regional Fisheries program communicates regularly with our partners and stakeholders through *Fish Lines*, a monthly account of performance highlights.

"...Marquette and Ludington Biological Stations conducted sea lamprey control operations, in coordination with the Great Lakes Fishery Commission and other partners, and minimized potential impacts to non-target organisms including lake sturgeon, chestnut lamprey, northern brook lamprey, American brook lamprey and silver lamprey; worked with the East Lansing Field Office to complete an informal Section 7 Consultation on sea lamprey control operations in Michigan, and submitted the document to the Region 3 Division of Endangered Species as a preliminary step in conducting a formal Great Lakes-wide consultation involving Regions 3 and 5; rescheduled 2007 lampricide treatments on the Milakokia River, Gulliver Lake Outlet, Big Sucker Creek and the Platte River, to avoid the piping plover nesting season..."

Accountability

Accountability Goal: Effective measuring and reporting of the Fisheries Program's progress toward meeting short-term and long-term fish and other aquatic resource conservation goals and objectives.

Our primary focus is on developing effective accountability measurements and reporting.

Objective - Develop and implement performance measures to determine the efficiency and effectiveness of Fisheries Program resource activities and financial accountability.

Objective - Manage Fisheries Program funding to maximize Program performance and to allocate and spend Program funds in a timely and responsible manner.

Our Commitment

– **The Fisheries Program will:**

- Meet regularly with State and Tribal fish and wildlife agency representatives and non-governmental organizations to coordinate activities.

  "...met with our state and tribal partners in conjunction with larger gatherings rather than more targeted meetings this past year - coordinated with our partners via such meetings as those held by the Great Lakes Fishery Commission, Mississippi Interstate Cooperative Resource Association, and the Midwest Association of Fish and Wildlife Agencies..."

- Prepare an annual report on the Fisheries program's accomplishments.

  "...developed an annual report of accomplishments based on our 'Region 3 Fisheries Program Operational Plan FY2007..."

Partnerships and Accountability

- Manage our funds to maximize Fisheries program performance.
  "…insured that new hatchery funds for the FY2007 budget identified measurable performance goals that were aligned with regional priorities; tracked performance measures for the Regional Fisheries program…"
- Develop accomplishment reports and provide summaries to State and Tribal partners and stakeholders.
  "…provided accomplishments to partners and stakeholders through *Fish Lines*, station reports, regional and station websites, and email links; insured that field station managers contributed to the Accomplishment Reporting System, *Fish Lines*, and insured that all personnel are committed to producing regular station reports…"
- Communicate regularly with our partners and stakeholders through *Fish Lines*, a monthly account of performance highlights.
  "…sent approximately 140 hard copies of *Fish Lines* monthly to individuals/groups which include our key partners and stakeholders, or emailed hot-links monthly to several hundred recipients that prefer to view accomplishments over the web at: http://www.fws.gov/midwest/Fisheries/library/fishlines.htm…"
- Develop regular station reports for inclusion in *Fish Lines* and also submit articles through the Accomplishment Reporting System.
  "…production of station reports was accomplishment by all field stations, most with regular frequency – many are being included on station web sites…"
- Maintain an informative website on the Internet at: http://www.fws.gov/midwest/Fisheries/.
  "…assigned a new webmaster for the Fisheries website - updates are in-progress…"
- Develop station websites and provide regular updated materials.
  "…a new webmaster has started to help develop station websites…"

– **All National Fish Hatcheries will:**

- Implement the Service Asset Maintenance Management Systems (SAMMS) to track all operational and maintenance costs for real property assets and maintenance at the station.
  "…Genoa NFH O&M costs for assets and mobile equipment records were entered into the SAMMS system database…"
  "…Iron River NFH continued to fully implemented SAMMS on real and personal property, and operations…"
  "…Jordan River NFH implemented SAMMS to track ongoing maintenance requirements on the facility… "
  "…Neosho NFH implemented SAMMS to track all operational and maintenance costs for real property assets and maintenance at the station…"
  "…Pendills Creek/Sullivan Creek NFH Complex continued to use SAMMS for tracking purposes…"

– **Alpena National Fish and Wildlife Conservation Office (NFWCO) will:**

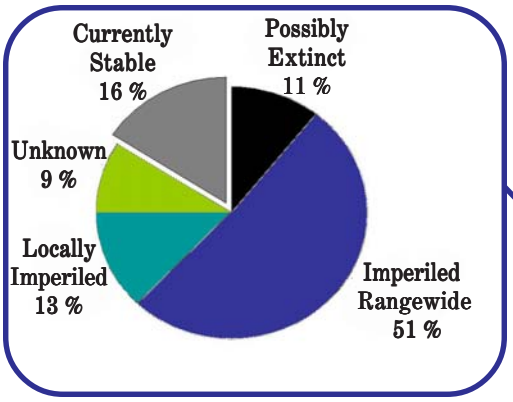
- Provide information about Alpena NFWCO activities and Service programs via the station website, and provide monthly accomplishment reports to state, Federal, non-governmental organizations (NGO's), congressional offices and the general public about station activities (MI, OH).
  "…provided monthly accomplishment reports to an established list of contacts that include Fish and Wildlife Service, other Federal, state and tribal partners, as wells as NGOs, Michigan and Ohio congressional offices and interested general public contacts, and reports were posted on the station website…"

some of our Partners and Stakeholders

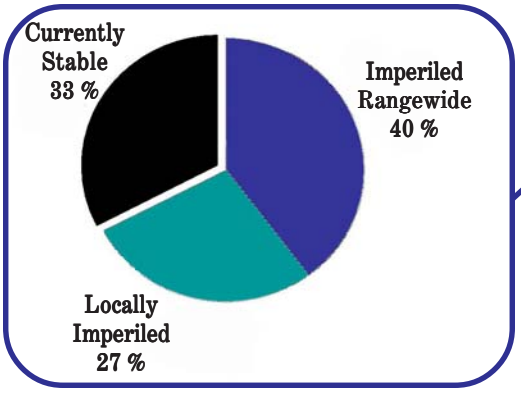
1854 Authority
Alpena Bass Club
American Fisheries Society
American Sportfishing Association
Audubon Society
Bad River Band of Lake Superior Tribe of Chippewa Indians
Badger Fly Fishers
BASS Federation
Bass Pro Shops
Bay Mills Indian Community
Bois Forte (Nett Lake) Lake Superior Band of Chippewa Indians
Brice Prairie Foundation
Bureau of Indian Affairs
Cabela's
Cheboygan Sportsmans Club
Chippewa Ottawa Resource Authority (CORA)
Cleveland Museum of Natural History
Crawford County Land Conservation Department
Department of Defense
Department of Fisheries and Oceans - Canada
DTE Energy
Falling Rock Walleye Club
Federal Emergency Management Authority
Fond du Lac (Lake Superior) Band of Chippewa Indians
Forest County Potawatomi Community
Friends of Pendills Creek Hatchery
Friends of the Big Muddy
Friends of the Jordan River Valley
Friends of the Neosho National Fish Hatchery
Friends of the Upper Mississippi River Fishery Services
Friends of the Upper Mississippi River Refuges
Grand Portage (Lake Superior) Band of Chippewa Indians
Grand River Partners Inc. (Ohio)
Grand Traverse Bay Band of Ottawa & Chippewa Indians
Great Lakes Fishery Commission
Great Lakes Indian Fish & and Wildlife Commission
Great Lakes Sportfishing Council
Hannahville Indian Community
Hawkeye Fly Fishing Association
Ho-Chunk Nation of Wisconsin
Hungry Canyons Alliance
Illinois Department of Natural Resources
Indiana Department of Natural Resources
Iowa Department of Natural Resources
Iowa State University
Izaak Walton League
Keweenaw Bay Indian Community
Kickapoo Valley Resource Management Board
Lac Courte Oreilles Band
Lac du Flambeau Band of Lake Superior Chippewa Indians
Lac Vieux Desert Band of Lake Superior Chippewa Indians
LaCrosse County Conservation Alliance
LaCrosse County Dept. of Land Conservation
Lake Metro Parks (Ohio)
Lake Michigan Fisheries Forum-17 members
Leech Lake Band of Ojibwe
Legend Lake Property Owners Association
Little Manistee River Watershed Conservation Council
Little River Band of Ottawa Indians
Little Traverse Bay Bands of Odawa Indians
Living Lands and Waters
Lower Sioux Indian Community in Minnesota
Lower Sioux Mdewakanton Indian Community
M.A.K.O. Fly Fisher's Association
Mancelona Rotary
Manistique Papers Inc.
Manitou Bluffs Conservation Group (Missouri)
Match-E-Be-Nash-She-Wish Band of Potawatomi Indians of MI
Menominee Indian Tribe of Wisconsin
Michigan Association of RC&Ds
Michigan Charterboat Association
Michigan Conservation Districts
Michigan Department of Environmental Quality
Michigan Department of Natural Resources
Michigan Department of Transportation
Michigan Inland Lakes and Stream Association
Michigan State University
Michigan United Conservation Clubs
Mille Lacs Band of Ojibwe
Minnesota Department of Natural Resources
Mississippi Interstate Cooperative Resource Assoc.
Mississippi Valley Conservancy
Mississippi Valley Partners
Mississippi Walleye Club
Missouri Department of Conservation
Missouri River Communities Network
Misouri River Relief
Missouri Smallmouth Alliance
Mohican Nation Stockbridge-Munsee Band
National Fish and Wildlife Foundation
National Park Service
Natural Heritage Foundation
Natural Resource Conservation Service
Nebraska Game & Parks Commission
Nature Conservancy
New York Depart. of Environmental Conservation
North American Native Fishes Association
Northland Sportmans Club
Nottawaseppi Huron Band of Potawatomi
Ohio Department of Natural Resources
Ohio Environmental Protection Agency
Oneida Tribe of Indians of Wisconsin
Ontario Ministry of Natural Resources
Ottawa National Wildlife Refuge Association
Overton-Woodridge Levee and Drainage Dist.
Pennsylvania Depart. of Environmental Protection
Pere Marquette Watershed Council
Peshawbestown Community Center
Pokagon Band of Potawatomi Indians
Prairie Island Indian Community
Pure Fishing
Rainy River First Nation
Red Cliff Band of Lake Superior Chippewa Indians
Red Lake Band of Chippewa Indians
River Alliance of Wisconsin
River Relief/Missouri River Relief
Sac and Fox Tribe of the Mississippi in Iowa
Saginaw Chippewa Indian Tribe of Michigan
Sault Ste. Marie Tribe of Chippewa Indians
Sea Grant
Shakopee Mdewakanton Sioux Community
Sierra Club
Sakaogon Chippewa (Mole Lake) Community of Wisconsin
Soo Area Sportsman's Club
South Dakota Department of Game, Fish & Parks
Sport Fishing and Boating Partnership Council
St. Croix Chippewa Indians of Wisconsin
Sturgeon for Tomorrow
The Nature Conservancy
Thunder Bay Brown Trout Committee
Thunder Bay Walleye Club
Tip of the Mitt Watershed
Trout Unlimited
U. S. Army Corps of Engineers
U.S. Department of Agriculture
U.S. Environmental Protection Agency
U. S. Forest Service
U. S. Geological Survey
Upper Black River Restoration Committee
Upper Sioux Community of Minnesota
Vernon County Land/Water Conservancy
West Fork Sports Club
White Earth Band of Chippewa
Wisconsin Association of Lakes
Wisconsin Department of Natural Resources
Wisconsin Hunting and Fishing Alliance

Our Fisheries and Aquatic Resources are in Trouble!

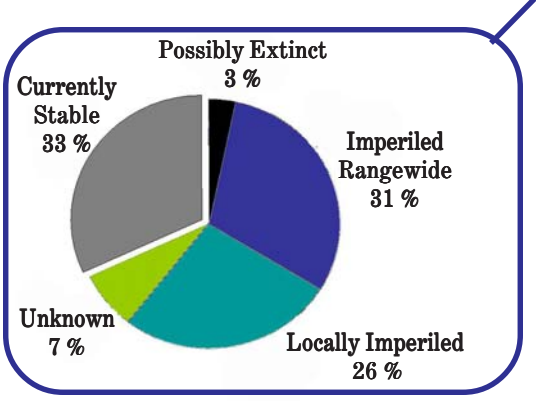
Conservation Status of Aquatic Species in Region 3



Invertebrates-Freshwater Mussels



Invertebrates-Crayfish



Vertebrates-Fish

"Federal and state imperiled species lists were used as a primary source to identify imperiled aquatic species. The conservation status of these species was determined using scientific literature, available anecdotal information and NatureServe.org, an online resource providing scientific information on species biology, distribution, management and conservation status. Using this background information, Fisheries Program Conservation Status Categories were assigned for all native freshwater mussels, fish and crayfish that occur or are known to have historically occurred in Region 3."

Region 3 Fisheries Program Conservation Status Categories for Fish, Crayfish and Mussels

Possibly Extinct: Species determined to be possibly (in some cases probably) extinct.
Imperiled Range-wide: Species which are federally-listed Endangered, Threatened, Candidate and Species of Concern, as well as species State-listed across most of their range.
Locally Imperiled: Species determined to be widespread and common with imperiled local populations, or species which are widespread with sporadic distribution.
Unknown: Species which have unknown conservation statuses or for which more information is needed.
Currently Stable: Species determined to be widespread, common and stable in range.

Aquatic Species Conservation and Management

Goal/Actual Accomplishment for FY 2007

Performance Measures (Fisheries Strategic Plan v. 11)

Aquatic Species Conservation and Management

	Regional Fisheries Goal	Regional Fisheries	Alpena NFWCO Goal	Alpena NFWCO	Ashland NFWCO Goal	Ashland NFWCO	Carter-ville FRO Goal	Carter-ville FRO	Columbia NFWCO Goal	Columbia NFWCO	Genoa NFH Goal	Genoa NFH	Green Bay NFWCO Goal	Green Bay NFWCO	Iron River NFH Goal	Iron River NFH	Jordan River NFH Goal	Jordan River NFH	La Crosse FHC Goal	La Crosse FHC	La Crosse NFWCO Goal	La Crosse NFWCO	Neosho NFH Goal	Neosho NFH	Pendills Creek NFH Goal	Pendills Creek NFH	Sea Lamprey Control Goal	Sea Lamprey Control
Number of aquatic T&E species populationsthat are self-sustaining as prescribed in Recovery Plans - FWMA/NFHS (PART)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of aquatic T&E populations for which current biological status and trend is known in whole or part to Fisheries Program involvement - FWMA/NFHS (PART)	5/6	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Number of population assessments completed for populations of mgmt. concern - Fisheries	125/261	8	75	113	9	0	54	0	0	0	0	2	0	0	0	0	0	0											
Number of aquatic T&E populations with recovery plans, due in whole or in part to Fisheries Program involvement - FWMA/NFHS (PART)	9/9	0	0	0	3	1	0	0	0	0	0	5	0	0	0	0	0	0											
Number of Recovery Plan tasks implemented by the Fisheries Program - FWMA/NFHS (PART)	25/25	0	0	1	13	7	0	0	0	0	0	5	12	0	0	0	0	0											
Number of species of management concern at self-sustaining levels - FWMA (GPRA)	6/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA											
Number of populations for which status and trend are known - FWMA/NFHS (PART)	164/167	16	49	51	13	3	28	0	0	0	0	7	0	0	0	0	0	0											
Number of Management plans in development, completed or revised during the fiscal year for populations of management concern by FWMA	1/0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											
Number of tasks implemented, as prescribed by Fisheries Mngt. Plans - FWMA/NFHS (PART)	125/261	30	0	42	6	63	53	45	9	3	51	1	12	0															
Number of native aquatic non T&E and non-candidate populations with approved mgmt. plans - Fisheries (PART)	137/196	29	63	34	1	1	39	0	0	0	9	0	0	0															
Number of populations of native aquatic non T&E species that are self-sustaining in the wild as prescribed in mgmgt. plans - Fisheries (PART)	0/84	7	30	18	11	2	15	0	0	0	1	0	0	0															
Number of marking targets met as prescribed by approved mgmt. plans - Fisheries	2/2	0	0	0	2	0	0	0	0	0	0	2	0	0															
Number of DOT watershed units (8-digit HUC) samples under the Wild Fish Health Survey by NFHS (PART)	154/153	0	0	0	0	0	0	0	0	0	153	0	0	0															

-Photo by Dennis Tar

Bob Kavetsky (East Lansing Field Office), and Todd Somers and Jim Francis (Michigan Department of Natural Resources) pull a seine at the Detroit River International Wildlife Refuge to provide baseline information about species, both native and non-native, found at the refuge.

-USFWS photo by Jim Boase

Jim McFee of the Ohio Department of Natural Resources carries egg traps used to sample for lake sturgeon eggs on the Maumee River. The Fish and Wildlife Service, Ohio DNR, and National Fish and Wildlife Foundation are partnering to examine whether lake sturgeon are using this Lake Erie tributary river for spawning.

Aquatic Species Conservation and Management

Native Species

Native Species Goal: Self-sustaining populations of native fish and other aquatic resources that maintain species diversity, provide recreational opportunities for the American public, and meet the needs of tribal communities.

(Self-sustaining Species)

Our primary focus for this objective is on management activities that help maintain species at self-sustaining levels. Specifically, we work with lake whitefish, walleye, and shovelnose sturgeon.

Objective - Maintain diverse, self-sustaining fish and other aquatic resource populations.

Our Commitment

- **Regional Office will:**
  - Work through the Council of Lake Committees (CLC) of the Great Lakes Fishery Commission to conserve native fish and fisheries consistent with the Joint Strategic Plan for Management of Great Lakes Fisheries (IL, IN, MI, MN, NY, OH, PA, WI).

    "…attended two Council of Lake Committees meetings to pursue native fish restoration, invasive aquatic species control, and Great Lakes Fish Community Objectives; provided detailed briefings to CLC members on: the status of the Great Lakes Fish and Wildlife Restoration Act; 2007 estimates of spawning phase sea lampreys; the Great Lakes mass fish marking initiative; and regulatory protocols affective sea lamprey control activities…"
  - Work through the Habitat and Species Strategy Team under the Great Lakes Regional Collaboration to conserve native fish and fisheries (IL, IN, MI, MN, NY, OH, PA, WI).

    "…worked with the Great Lakes Regional Collaboration…"
- **Alpena National Fish and Wildlife Conservation Office will:**
  - Conduct fishery-independent assessments to monitor the status of lake whitefish populations in the 1836 Treaty waters of Lake Huron (MI).

    "… set 24 gangs of graded-mesh gill nets (2,700 ft each) along 12 different transects – 6 each in WFH04 and WFH05…"
  - Work with the Michigan DNR, CORA, and the five 1836 Treaty Tribes to identify, assess, and reduce threats to lake whitefish, walleye, and other stocks targeted by fisheries in the 1836 Treaty waters of Lake Huron (MI).

    "…worked through the TFC and Executive Council to calculate and assign safe harvest limits for lake trout and lake whitefish stocks utilized by state and tribal fisheries in Northern Lake Huron…"
  - Work with the Michigan DNR and the U.S. Geological Survey (USGS) to assess the near-shore fish community in the Detroit River International Wildlife Refuge and in the St. Clair River (MI).

    "…survey efforts included 16 seine sites, 27 electrofishing sites and 25 fyke net sites in the Detroit River International Wildlife Refuge (IWR) and the St. Clair River delta, capturing 57 species from 17 families…"
  - Work with the Michigan DNR, USGS, and Ontario Ministry of Natural Resources (MNR) to assess historical spawning habitats in the Lower Detroit River used by native fish including lake whitefish, walleye, lake sturgeon and other native species (MI, Ontario).

    "…survey efforts included 112 setline sites capturing predominantly lake sturgeon and 118 gillnet sites capturing predominantly walleye and lake whitefish at locations in the Lower Detroit River and sites near Fighting Island…"

Aquatic Species Conservation and Management

-USFWS

Great Lakes Indian Fish and Wildlife Commission staff prepare to collect walleye using an electrofishing system. Ashland National Fish and Wildlife Conservation Office assists in these surveys.

-USFWS/JoeMcMullen

Joe McMullen of the Columbia National Fish and Wildlife Conservation Office worked with Youth Conservation Corps employees to electrofish the Mingo River as part of a fish community survey on the Mingo National Willdife Refuge.

-USFWS

La Crosse Fish Health Center biologist Becky Lasee monitors health sampling for the Wild Fish Health Survey by a University of Wisconsin student.

– **Ashland National Fish and Wildlife Conservation Office will:**
  - Work with the Michigan DNR, CORA and the five 1836 Treaty Tribes to identify, assess, and reduce threats to lake whitefish, lake trout, walleye, and other stocks targeted by fisheries in the 1836 Treaty waters of Lake Superior (MI).

    "…summarized data on lake trout, lake whitefish, siscowet, cisco, and all species collected during aquatic invasive species surveys for the 'Lake Superior State of the Lake report'; lake trout scales and lake whitefish otoliths were collected in both 1836 and 1842 treaty waters of Lake Superior; the ageing information is used in conjunction with the biological data in models regulating harvest of each species in Lake Superior…"
  - Work with partners to monitor the status of and identify potential threats to lake trout populations in Lake Superior (MI, MN, WI).

    "…summarized data on lake trout, lake whitefish, siscowet, cisco, and all species collected during aquatic invasive species surveys for the 'Lake Superior State of the Lake' report; lake trout scales and lake whitefish otoliths were collected in both 1836 and 1842 treaty waters of Lake Superior; the ageing information is used in conjunction with the biological data in models regulating harvest of each species in Lake Superior…"
  - Conduct fishery-independent assessments to monitor the status of lake whitefish populations in the 1836 Treaty waters of Lake Superior (MI).

    "…completed fishery-independent surveys of lake whitefish in 1836 Treaty waters of Lake Superior…"
  - Work with the Wisconsin DNR and the Great Lakes Indian Fish and Wildlife Commission to monitor the status of and identify threats to walleye populations targeted by fisheries in the 1837 and 1842 Treaty waters (WI).

    "…participated in an annual meeting of the Joint Fishery Assessment Steering Committee held at the Lac Courte Oreilles Indian Reservation - assessment data collected from spring/summer/fall surveys were presented as well as 2007 assignments and projected budget; assisted the Great Lakes Indian Fish and Wildlife Commission (spring and fall) with walleye population surveys…"

– **Carterville National Fish and Wildlife Conservation Office will:**
  - Maintain a database of shovelnose and lake sturgeon tag numbers and contact information from throughout the Upper Mississippi River basin to facilitate information exchange between the person who recovered a fish and the person who tagged that fish (IL, MO).

    "…maintained the Sturgeon Tag Database - tag data going back to 2003 from Missouri River sturgeon were submitted by the Columbia NFWCO - the database will continue

Aquatic Species Conservation and Management

to be maintained in 2008 with additional calls for data - when fully populated, the database will facilitate communication between sturgeon biologists throughout the Mississippi River basin…"

– **Columbia National Fish and Wildlife Conservation Office will:**
  - Collect and provide biological data on shovelnose sturgeon to the Missouri Department of Conservation (MDC) for stock assessment (MO).
    "…provided shovelnose sturgeon recapture data to MDC for stock assessment…"
  - Collect and provide biological data on white crappie, walleye and largemouth bass to DeSoto National Wildlife Refuge (NWR) (IA).
    "…analyzed data from biological and creel surveys to provide fish management recommendations to DeSoto NWR…"
  - Collect and provide biological data on largemouth bass and channel catfish to Big Muddy National Fish and Wildlife Refuge (NF&WR) (MO).
    "…analyzed data from biological surveys to provide fish management recommendations to Big Muddy NF&WR…"
  - Provide assistance to Ohio State University to develop a protocol and standardized datasheet and collect genetic tissue samples on blue and flathead catfish, glochidia hosts, throughout the range of the mapleleaf mussel (*Quadrula* spp.) (OH).
    "…collected tissue samples on blue and flathead catfish throughout the Lower Missouri River for an Ohio State University graduate student…"

– **Green Bay National Fish and Wildlife Conservation Office will:**
  - Conduct fishery-independent assessments and monitor the status of lake whitefish populations in Northern Lake Michigan (MI, WI).
    "…completed assessment at Frankfurt and Grand Traverse Bay…"
  - Work cooperatively with the Wisconsin DNR to assess the status of yellow perch populations in Green Bay, Lake Michigan, using models and data analysis (WI).
    "…continued technical assistance was provided to the Wisconsin DNR to update the stock assessment models and provide justification for future yellow perch harvest quotas…"
  - Work with the Michigan DNR, CORA and the five 1836 Treaty Tribes to identify, assess and reduce threats to lake whitefish, walleye and other stocks targeted in fisheries of the 1836 Treaty waters of Lake Michigan (MI).
    "…participated in the Modeling subcommittee and Technical Fisheries Committee to identify safe harvest limits and evaluated potential factors limiting potential harvest levels…"

– **La Crosse National Fish and Wildlife Conservation Office will:**
  - Support the La Crosse Fish Health Center (FHC) to conduct the annual Wild Fish Health Survey (MN, WI).
    "…supported the La Crosse FHC to conduct the annual Wild Fish Health Survey in the Illinois Waterway, and Pools 4, 5A, 7, 8, 9, and 10 of the Upper Mississippi River…"

– **La Crosse Fish Health Center will:**
  - Conduct the Wild Fish Health Survey (IL, IN, IA, MI, MN, MO, OH, WI).
    "…sampled 40 species and over 7,300 fish for the Wild Fish Health Survey…"
  - Investigate disease outbreaks for wild and hatchery raised fish (IL, IN, IA, MI, MN, MO, OH, WI).
    "…found fish virus outbreaks of viral hemorrhagic septicemia virus, spring viremia of carp virus, and largemouth bass virus…"
  - Conduct pathogen screening for wild fish brought onto the Service's NFH's (IA, MO, WI).
    "…screened the Upper Mississippi River at the Genoa NFH…"
  - Verify findings from other agencies' fish pathologists (IL, IN, IA, MI, MN, MO, OH, WI).
    "…verifying findings from other agencies' fish pathologists is a continuous process, and findings are verified as they are requested…"

Aquatic Species Conservation and Management

(Aquatic Species of Concern)

-USFWS

Survival assessments are conducted on key sites on the Great Lakes to evaluate lake trout stocking programs.

-USFWS photo by James Boase

Volunteer Aime Bourdon and biologist Jim McFee remove a young-of-the-year lake sturgeon from a net on the Detroit River, incidentally captured as part of a lake whitfish survey.

-IMAX/Adam Lintz

An IMAX camera is lowered to the camera crew from aboard the Alpena National Fish and Wildlife Conservation Office vessel *Sentinel* in preparation to film lake sturgeon spawning under the Blue Water Bridge in the St. Clair River which is a tributary to the Great Lakes.

Objective - Restore declining fish and other aquatic resource populations before they require listing under the *Endangered Species Act*.

Our primary focus for this objective is on restoration activities that will help prevent the need to list species under the ESA. Specifically, we work with lake sturgeon, paddlefish, and native mussels in the Mississippi, Missouri, and Ohio river basins and lake trout, coaster brook trout, lake sturgeon, and lake herring in the Great Lakes.

Our Commitment

– **Regional Office will:**

- Work with partners through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund native fish restoration activities addressing recommendations of the Great Lakes Fishery Resources Restoration Study (IL, IN, MI, MN, NY, OH, PA, WI).

  "…the following Restoration Act funded projects were in progress or completed during FY2007: Linking yellow perch movements to near shore bottom substrate - University of Illinois; Modeling historic and temporal variation of Great Lakes walleye maturation schedules - University of Michigan; Estimating spawning date, hatch date, and strain contribution for lake trout at Lake Michigan's Mid Lake Reef complex - University of Wisconsin- Milwaukee; Responses of lake trout and Chinook salmon to unprecedented declines in major prey fish abundance in Lake Huron - Michigan State University; Lake sturgeon rehabilitation using stream-side rearing facilities - Wisconsin Department of Natural Resources; Developing and testing models of lake herring (*Coregonus artedi*) population dynamics in Lake Superior: Implications for restoration in the Lower Great Lakes - Michigan State University; Identification of putative pheromones in lake trout - Michigan State University; Dynamics and biology of siscowet lake trout in Lake Superior - Michigan State University; Lake trout reproduction at Mid-Lake Reef - University of Wisconsin – Milwaukee; Biophysical model of Lake Erie walleye recruitment - Michigan State University; and Development of genetic management guidelines for lake sturgeon - University of California, Davis; Food habits of Lake Ontario offshore prey fish - Great Lakes Fishery Commission…"

- Work through our position as observer on the Council of Lake Committees to pursue native fish rehabilitation on a Great Lakes wide scale consistent with fish community objectives for each lake (IL, IN, MI, MN, NY, OH, PA, WI).

  "…attended two Council of Lake Committees meetings, participating in discussions and interagency decisions

Aquatic Species Conservation and Management

addressing the conservation of Great Lakes prey fishes, American eel, spotted musky, lake trout and other species; participated in discussions of viral hemorrhagic septicemia virus and how to minimize risk of this new pathogen to Great Lakes fishes…"

- Work with the Ecological Services program in responding to the petition to list the American eel (IA, IL, IN, MI, MN, MO, NY, OH, PA, WI).

"…worked with the Ecological Services program in responding to the petition to list the American eel…"

- Work with the Ecological Services program in responding to the petition to list the Lake Superior coaster brook trout (MI, MN, WI).

"…worked with the Ecological Services program in responding to the petition to list the Lake Superior coaster brook trout…"

– **Alpena National Fish and Wildlife Conservation Office:**

- Work with partners to monitor the status of lake trout and to restore populations and habitat through interagency plans for Lake Huron, and lead efforts for the fourth revision of the Lake Huron Lake Trout Study Plan (MI).

"…completed fall spawning assessment at Six Fathom Bank and Yankee Reef and reported on incidence of unclipped (wild) lake trout at winter meeting of LHTC; led Service efforts for collaborative effort with Ontario Ministry of Natural Resources (MNR) to develop a Parry Sound brood stock for Great Lakes NFH program; led LHTC-Lake Trout Task Group efforts to draft a Parry Sound Evaluation Plan in preparation of future paired plants of Parry Sound strain lake trout to be produced at Sullivan Creek NFH…"

- Work with partners to monitor the status of lake sturgeon and to restore populations and habitat through interagency plans for the St. Marys River, Lake Huron, Lake Erie, and connecting waters of the Huron-Erie Corridor (MI, OH).

"…continued to work in partnership with commercial fishers in Saginaw Bay and Northern Lake Huron for tagging of by-caught lake sturgeon; completed habitat survey on the Maumee River in collaboration with Ohio Department of Wildlife (DOW); collaborated with Lake Superior State University to assess lake sturgeon in the St. Marys River - captured over 50 lake sturgeon and implanted 7 additional fish with sonic tags for telemetry…"

- Work with partners through the Lake Huron Technical Committee – Lake Sturgeon Task Group to draft a lakewide management plan for lake sturgeon (MI).

"…led LHTC-Lake Sturgeon Task Group efforts to draft a lakewide management plan for lake sturgeon restoration efforts in U.S. and Canadian waters of Lake Huron…"

- Work with partners to identify the status of and develop interagency restoration plans for freshwater mussels in the St. Clair River Delta and participate on the Region 3 Mussel Group (MI).

"…led Fish and Wildlife Service collaborative efforts with Michigan DNR, Michigan Natural Feature Inventory, USGS, Detroit River International Wildlife Refuge (IWR), Genoa NFH, Jordan River NFH, and the Nature Conservancy for native freshwater mussel recovery efforts to identify funding sources and identify research needs in the Huron-Erie Corridor…"

- Work with the Michigan DNR, East Lansing Field Office, and others to assess the status of the shallow-water fish community in the St. Clair River, Lower Detroit River and Western Lake Erie (MI).

"…collaborated with the East Lansing FO and other partners on a number of shallow-water fish community projects related to Federal permit applications at sites in the Huron-Erie Corridor…"

– **Ashland National Fish and Wildlife Conservation Office:**

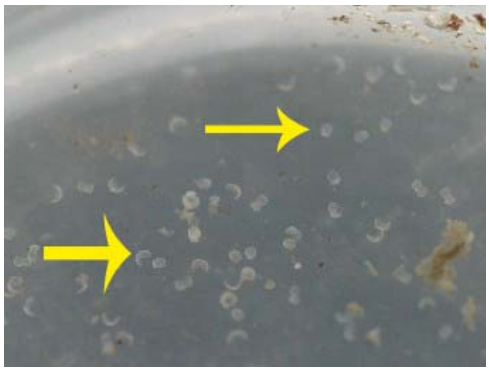
- Work with partners to monitor the status of brook trout and to restore populations and habitat through interagency plans for Lake Superior (MI, MN, WI).

"…established a partnership with the Ashland-Bayfield-Douglas-Iron Counties Land Conservation Department to better promote the Services Fish Passage Program; prepared a poster

Aquatic Species Conservation and Management

-USFWS photos
Henry Quinlan (left) and Bill Blust stock brook trout eggs into a gravel bed in Whittlesey Creek, near Ashland, Wisconsin.

-USFWS
Corey Lee (left) and Andy Starostka pose with four lake sturgeon collected on the Missouri River providing visual evidence that the Missouri Department of Conservation's stockings are successful.



-photo by Mike Davis, Minnesota DNR
Arrows point to microscopic larvae that have been collected in a Petri dish. These larvae are from a Federally endangered Higgins' eye pearlymussel.

presentation entitled *An Experiment to Establish a Migratory Population of Brook Trout in Whittlesey Creek*; presented status updates on coaster brook trout rehabilitation at the Great Lakes Fishery Commission Lake Committee meeting; assisted the Red Cliff Natural Resources Department with their fall assessments of coaster brook trout in Lake Superior; twenty thousand 1.5 inch long spring fingerlings and 50 adult coaster brook were stocked in the Whittlesey Creek watershed; conducted a fishery survey on the Grand Portage Indian Reservation to determine the presence and relative abundance of coaster brook trout; completed a pre-construction fishery survey on Vaughn Creek before a fish passage enhancement project began - a step pool series was later completed to raise the water level of the pool below a perched culvert so fish such as native brook trout can pass through the system; conducted brook trout surveys in cooperation with the National Park Service and Michigan DNR - this was the eighth consecutive spring coaster index survey conducted in Tobin Harbor and Siskiwit Bay…"

- Work with partners to monitor the status of lake sturgeon and to restore populations and habitat through interagency plans for Lake Superior (MI, MN, WI).

  "…established a partnership with the Ashland-Bayfield-Douglas-Iron Counties Land Conservation Department to better promote the Fish Passage Program for lake sturgeon; presented data during the Great Lakes Lake Sturgeon Coordination meeting on the use of passive integrated transponder (PIT) tag technology for lake sturgeon rehabilitation in the Great Lakes; presented status updates on lake sturgeon rehabilitation at the Great Lakes Fishery Commission Lake Committee meeting; conducted surveys for lake sturgeon on the White River to determine if lake sturgeon reach spawning habitat upriver or are blocked by four large log jams; the Keweenaw Bay Indian Community, Michigan DNR, Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and the Ashland NFWCO collaborated to conduct a pilot survey in Lake Superior waters to evaluate stocking progress and to describe the status of lake sturgeon near the Ontonagon River…"

- Work cooperatively with the Regional Office and Ecological Services Field Offices in responding to the petition to list Lake Superior coaster brook trout (MI, MN, WI).

  "…participated in several meetings to discuss the petition to list coaster brook trout and the 90-day finding…"

– **Carterville National Fish and Wildlife Conservation Office will:**

- Work with partners to identify priority actions in the Ohio River basin that best fit our office; this effort may include

Aquatic Species Conservation and Management

review of management plans as well as formal or informal discussions with states and other partners in the basin (IL, IN, OH).

"…currently the Ohio River Basin Mussel/Fish Habitat Partnership (Partnership) is a candidate partnership under the National Fish Habitat Action Plan (NFHAP) - to date, the Carterville NFWCO has worked hand-in-hand with a team of people in the Ohio River Basin, to 1) begin forming the partnership, 2) develop a fact sheet, 3) seek and receive recognition as a Candidate Partnership under the NFHAP, 4) apply for a Multi-State Conservation Grant, and 5) discuss the partnership with state fish chiefs from throughout the basin…"

– **Columbia National Fish and Wildlife Conservation Office will:**
  - Collect and provide biological data on lake sturgeon to the Missouri Department of Conservation for stock assessment (MO).

    "…provided lake sturgeon recapture data to MDC for stock assessment…"
  - Work with University of Missouri-Columbia and the Missouri Cooperative Fish and Wildlife Unit to provide biological data on paddlefish in the Osage and Lower Missouri rivers to the Mississippi Interstate Cooperative Resource Association Paddlefish/Sturgeon Committee for stock assessments (MO).

    "…worked with University of Missouri-Columbia and MDC on Osage River paddlefish assessment and incorporating data into national paddlefish stock assessment database…"
  - Describe and assess environmental variables in relation to reproductive development in sicklefin, sturgeon, and speckled chubs in cooperation with University of Missouri-Columbia and the Missouri Cooperative Fish and Wildlife Unit (MO).

    "…worked with University of Missouri-Columbia to assess environmental variables related to reproductive development of sicklefin, sturgeon and speckled chubs…"
  - Provide technical assistance to help write a comprehensive, multi-state paddlefish plan for the Upper Mississippi River basin (MN, WI, IL, IA, MO).

    "…provided assistance to the La Crosse NFWCO and state fish and game agencies with the National Paddlefish Stock Assessment database in preparation for an Upper Mississippi River basin management plan…"

– **Green Bay National Fish and Wildlife Conservation Office**
  - Work with partners to monitor the status of lake trout in Lake Michigan, revise the lake trout rehabilitation plan and restore populations and habitat through coordinated interagency actions (MI, IL, IN, WI).

    "…completed annual spawning assessments and egg collection for thiamine research; completed annual spring lakewide assessment plan responsibilities; as chair of the Lake Trout Task Group of the Lake Michigan Committee, led the completion of the rehabilitation guide for lake trout in Lake Michigan, and provided assistance to the Lake Michigan Committee on the drafting of the lake trout rehabilitation implementation plan…"
  - Work with partners to monitor the status of lake sturgeon in Lake Michigan, develop a rehabilitation plan and restore populations and habitat through coordinated interagency actions (MI, IL, IN, WI).

    "…assisted with the survey of sturgeon spawning in Green Bay tributaries; coordinated the lake-wide assessment of the remnant sturgeon stocks project in Lake Michigan, which was funded by the Great Lakes Fishery Trust; participated in studies to evaluate historical abundance and range of lake sturgeon in Lake Michigan, habitat assessment of Green Bay tributaries, implementation of streamside rearing and stocking of juvenile sturgeon, and early life history survival in the Peshtigo River; serve as chair of the Lake Sturgeon Task Group charged to develop a rehabilitation plan for Lake Michigan…"

– **Genoa National Fish Hatchery will:**
  - Identify the host fish for various imperiled mussels species in the Upper Mississippi River Basin (IL, IA, MN, WI) (**Fully funded by Fisheries Operational Needs System (FONS) project # 2002-001**).

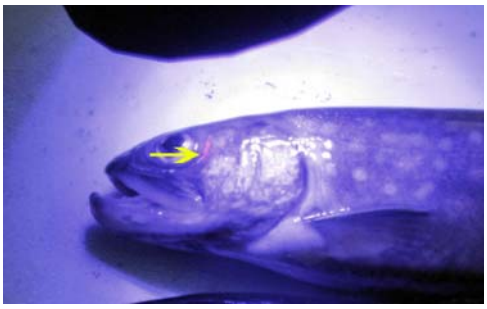
Aquatic Species Conservation and Management

-USFWS

The hatching battery at the Genoa National Fish Hatchery, for incubating lake sturgeon eggs, allows multiple hatching jar use as well as isolated hatching into individual tanks.

-USFWS

This yearling lake sturgeon was produced at the Genoa National Fish Hatchery to support restoration efforts in northern Wisconsin.



-USFWS

The arrow points to an elastomer tag that glows under a special light. This tag is being tested at the Iron River National Fish Hatchery.

"…found two new host fish species for sheepnose mussel, a candidate species on the Endangered Species list; completed host fish trials for washboard mussels using blue catfish and three ridge mussels using bluegill sunfish; continued to expand knowledge and production expertise of freshwater mussel species of concern in the Mississippi River basin, and work with partners to restore species to preclude listing under the Endangered Species Act (ESA) in Minnesota, Wisconsin, Illinois and Iowa by working with Iowa DNR and Hartman Reserve to restore and maintain three separate mussel beds containing multiple species in Iowa's Driftless Area - supplied technical expertise in conjunction with the Ohio River Ecosystem Teams mussel sub-team to further mussel restoration efforts following a devastating chemical spill on the Ohio River; completed host fish trials to further future on-the-ground recovery efforts; continue to supply mussels, host fish, and expertise to the Upper Midwest Environmental Science Center and other research organizations to further mussel, toxicological and other environmental research - cultured eight species of native mussels for further research and to assist in ongoing and future restoration programs; worked with the Mississippi River Museum to effectively hold wild longnose gar, infest with yellow sandshell mussel, and propagate in cages located at their facility in Dubuque, Iowa - this allows wild fish to be collected and held off-station until the reproductive cycle of the mussel is complete…"

- Culture 1,000 coaster brook trout of the Siskiwit strain in the isolation unit for future brood stock at Iron River NFH under interagency restoration programs for the Great Lakes (MI, WI).

"…reared and transferred 2,400 coaster brook trout of the Tobin Harbor strain for Iron River NFH to maintain genetic integrity of this highly valuable species and support their captive brood stock program objectives…"

- Culture 25,000 lake sturgeon (3 strains) for stocking under interagency restoration programs on the Menominee Indian Reservation (e.g. Menominee Indian Tribe and Wisconsin DNR), Red River of the North basin (e.g. First Nations of Canada, White Earth Band of Chippewa, and Minnesota DNR), and the Missouri River basin (e.g. Missouri Department of Conservation) (MN, MO, WI). (**Partially funded by FONS project # 2003-001**).

"…cultured 10,000 lake sturgeons for the White Earth Tribe, 3,000 lake sturgeons for Minnesota's Red River of the North restoration efforts, 6,000 lake sturgeons for the Missouri Department of Conservation (DOC), and 1,000 lake sturgeons for the Lac du Flambeau Tribe of Wisconsin…"

Aquatic Species Conservation and Management

- Culture 7,500 yearling brook trout and 20,000 fingerling brook trout for stocking under an interagency restoration program in Lake Superior (MI, MN, WI).

  "…cultured, marked and stocked 11,900 yearling brook trout and 25,000 fingerling brook trout for the Grand Portage Tribe's Lake Superior restoration effort…"

- Work with partners to collect and isolate future lake trout brood stock from wild Lake Superior, Seneca Lake, and Cayuga Lake donor populations, and future coaster brook trout brood stocks from the Lake Superior watershed as needed (MI, NY, WI).

  "…continued to hold and rear one lot of Seneca Lake lake trout in the facility's isolation facility - these fish will be cleared for transfer in early 2008 - these valuable brood fish represent genetics important to both Region 3 and Region 5's lake trout rehabilitation efforts in lakes Michigan, Huron and Ontario - they will be divided between three lake trout brood stock stations at Iron River NFH (WI), Sullivan Creek NFH (MI), and Allegheny NFH (PA)…"

– **Iron River National Fish Hatchery will:**

- Work cooperatively with the Keweenaw Bay Indian Community (KBIC), Genoa NFH, the La Crosse FHC and other partners to collect and isolate future lake trout and brook trout brood stock from wild Lake Superior donor populations (MI, WI) (**FONS project # 2001-001**).

  "…continued to work cooperatively with the KBIC - the Memorandum of Understanding (MOU) to isolate future brood stock is no longer in place as it expired in 2005 and was no longer required (Genoa NFH has adequate facilities and isolated all of our brood fish for FY2007); agreement between the Iron River NFH and KBIC will re-establish an MOU with KBIC as an isolation facility in the future, if needed…"

- Maintain strains of lake trout (Klondike Reef, Apostle Island, and Traverse Island) and brook trout (Siskiwit Bay and Tobin Harbor) brood stock, as defined by restoration plans for lakes Superior, Huron, Michigan, Erie and Ontario, to support interagency restoration programs in the Upper Great Lakes (MI, MN, IL, IN, NY, PA, WI).

  "…maintained two lines of Klondike Reef, three year classes of Apostle Island, and three year classes of Traverse Island lake trout during FY2007 - the Traverse Island strain of lake trout was retired due to no longer being requested under rehabilitation plans; maintained five year classes of Tobin Harbor and four year classes of Siskiwit Bay coaster brook trout…"

- Produce lake trout (3-5 million eggs, 1.2 million yearlings, and up to 400,000 fingerlings) and brook trout (300,000-500,000 eggs, 100,000- 200,000 fry/fingerlings) for stocking under interagency restoration programs in lakes Superior, Huron and Michigan (MI, MN, IL, IN, WI) (**Funded by FONS project # 2005-001**).

  "…produced (5.8) million green lake trout eggs, (1,249,400) yearling lake trout, (692,878) fingerling lake trout, (3,113) future brood stock lake trout, (1.9) million green coaster brook trout eggs, (247,138) coaster brook trout fry and (896) brood coaster brook trout for stocking and restoration programs…"

- Work with partners through Lake Huron, Lake Michigan and Lake Superior Technical Committees to update and implement interagency lake trout and coaster brook trout rehabilitation plans (MN, MI, IL, IN, WI).

  "…worked cooperatively with the Green Bay and Alpena NFWCO's to provide requested information to update these plans…"

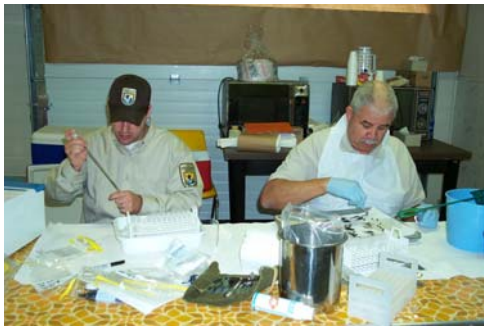
- Reduce lake trout brood stock strains/lines per advice from the Regional Office, reflecting changes to rehabilitation programs for lakes Huron and Michigan (MI, WI, IL, IN).

  "…retired the Traverse Island strain of Lake trout due to no longer being requested under rehabilitation plans..."

Aquatic Species Conservation and Management

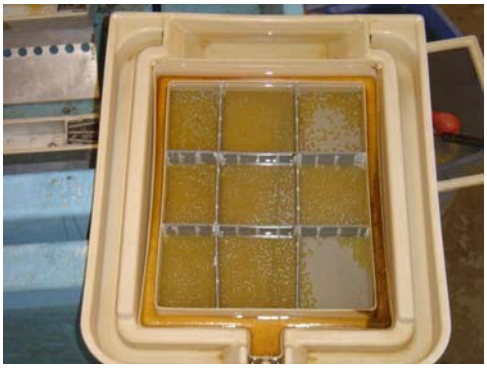
-USFWS

A fin is carefully removed from a young lake trout as a part of the rehabilitation plans for lake trout, to mark all stocked fish.



-USFWS

The La Crosse FHC conducts a fish health pathogen screening at one of the Region's Great Lakes fish hatcheries.



-USFWS

Individual egg takes of the Seneca Lake strain of lake trout are separated in an incubator. Equal numbers of resultant fry will make up the brood stock line, ensuring maximum genetic variability from the wild population.

– **Jordan River National Fish Hatchery will:**
  - Produce 1.8 million lake trout yearlings for stocking under interagency rehabilitation programs in Lake Huron and Lake Michigan (MI, IL, IN, WI).
    "…produced 2.1 million lake trout yearlings composed of three strains for stocking in lakes Huron and Michigan…"
  - Operate the *M/V Spencer F. Baird* to stock 3 million lake trout yearlings from Iron River, Pendills Creek and Jordan River NFH's at offshore reefs in Lake Michigan and Lake Huron (MI, IL, IN, WI).
    "…responsibility for operation of the *M/V Spencer F. Baird* was transferred to the Regional Office for the 2007 distribution season; however, during a transitional period Jordan River staff is key to the successful distribution operations in 2007…"
  - Conduct field testing of lake trout holding and stocking capabilities of the *M/V Spencer F. Baird* during spring/summer 2007, (IL, IN, MI, WI).
    "…much of the transportation tank and stocking protocol evaluation was performed and/or overseen by Jordan River NFH biologists…"
  - Provide 700,000-1,000,000 lake trout fry to Pendills Creek NFH for rearing to yearling stage (MI, IL, IN, WI).
    "…transfer of 1.1 million lake trout fry was completed by June 1 - the fry were comprised of two different strains, Lewis Lake Wild and Superior Apostle Island Wild…"
  - Work with partners through the Lake Michigan Technical Committee and the Lake Huron Technical Committee to update and implement interagency lake trout rehabilitation plans (MI, IL, IN, WI).
    "…participated in the bi-annual Lake Huron and Lake Michigan technical committee meetings; involved in the review and provided input on the proposed draft *Guide for Lake Trout Rehabilitation in Lake Michigan*…"

– **Neosho National Fish Hatchery will:**
  - Hold 300 freshwater drum as host fish for Southwest Missouri State University's efforts to culture the Neosho mucket, a candidate species for listing under the *ESA* (MO).
    "…held 300 freshwater drum as host fish for Southwest Missouri State University's efforts to culture the Neosho mucket…"
  - Experiment with culturing freshwater drum to provide a continuous supply for Neosho mucket culturing efforts (MO).
    "…continued to experiment with culturing freshwater drum to provide a continuous supply for Neosho mucket culturing efforts - were able to achieve some recruitment…"

– **Pendills Creek National Fish Hatchery will:**
  - Produce 900,000 lake trout yearlings and 100,000 fingerlings for stocking under interagency rehabilitation programs

Aquatic Species Conservation and Management

in Lake Huron and Lake Michigan (IL, IN, MI, WI) (**Funded by FONS project # 2006-014**).

"…produced 950,533 yearlings and 101,600 fingerlings under interagency rehabilitation programs..."

- Continue to utilize and monitor water filtration and liquid oxygen systems, bringing them into full operational use (MI) (**Funded by FONS project # 2006-009**).

"…working through a design issue with the water filtration building…"

- Work with partners through the Lake Michigan Technical Committee and the Lake Huron Technical Committee to update and implement interagency lake trout rehabilitation plans (MI, IL, IN, WI).

"…continue to attend Technical Committee meetings and brief our partners on hatchery enhancements and our activities…"

– **Sullivan Creek National Fish Hatchery will:**

- Work with partners to collect and isolate future lake trout brood stock from wild Lake Superior, Lake Huron, Seneca Lake and Cayuga Lake donor populations (MI, NY, WI).

"…continue to bring in future disease free brood stock from Seneca Lake, and Parry Sound (Lake Huron native stock)…"

- Maintain various strains of lake trout brood stock as defined by rehabilitation plans to provide over five million eggs for interagency rehabilitation programs in Lake Huron and Lake Michigan (MI, IL, IN, WI).

"…adjusted our captive brood stock program to match current lakes Michigan and Huron lake trout rehabilitation plans…"

- Continue to reduce lake trout brood stock strains/lines per advice from the Regional Office, reflecting changes to rehabilitation programs for Lake Huron and Lake Michigan (MI).

"…adjusted our brood stock program to reflect changes in lake rehabilitation plans…"

– **La Crosse Fish Health Center will:**

- Conduct fish health pathogen screening and diagnostic services for the Service's Great Lakes brook trout and lake trout restoration stocking activities (MI, WI).

"…conducted bi-annual fish health inspections at all facilities…"

- Increase the number of watersheds with current wild fish health surveys to 37 out of 363 watersheds in Region 3 (IL, IN, IA, MI, MN, MO, OH, WI).

"surveys completed on 65 Hydrologic Unit Codes or watersheds…"

– **Marquette and Ludington Biological Stations will:**

- Conduct sea lamprey control operations, in coordination with the Great Lakes Fishery Commission and other partners, to minimize potential impacts to non-target organisms including lake sturgeon, chestnut lamprey, northern brook lamprey, American brook lamprey and silver lamprey (IL, IN, MI, MN, NY, PA, OH, WI).

"…rescheduled the 2007 lampricide treatment of the Platte River to avoid the Michigan DNR coho salmon egg taking operations; placed drift nets below Platte Lake outlet during the 2007 lampricide treatment to determine whether Douglas Stenelmis riffle beetles (*Stenelmis douglasensis*), a species listed on the State if Michigan's special concern list, were present and drifted during the treatment; implemented the "Protocol to Protect and Avoid Disturbance to Federal and/or State-Listed Endangered, Threatened, Candidate, Proposed, or Special Concern Species and Critical or Proposed Critical Habitats in or near Great Lakes Streams Scheduled for Lampricide Treatments in the United States during 2007"; implemented the "Protocol to Protect and Avoid Disturbance to Federal and/or State-Listed Endangered, Threatened, Candidate, Proposed, or Special Concern Species and Critical or Proposed Critical Habitats in or near Great Lakes Streams Scheduled for Granular Bayluscide Assessments in the United States during 2007"; coordinated with the Michigan DNR during the Cedar River treatment to ensure survival of lake sturgeon (*Acipenser fulvescens*) held in a rearing facility near the stream mouth…"

Aquatic Species Conservation and Management

(Endangered and Threatened Species)

Objective - Recover fish and other aquatic resource populations protected under the *Endangered Species Act.*

Our primary focus for this objective is on implementing recovery activities that: 1) prevent the extinction of threatened and endangered species, and; 2) lead to down-listing or de-listing species listed under the ESA. Specifically, we work with pallid sturgeon, Higgins eye pearlymussel, winged mapleleaf, northern riffleshell mussel, Topeka shiner, Niangua darter and Ozark cavefish..

-USFWS
Columbia National Fish and Wildlife Conservation Office crew samples the Missouri River fish community with a stern trawling boat.

-USFWS
A diver prepares to seach for Federally endangered winged mapleleaf mussels in the St. Croix River.

Our Commitment

– **Alpena National Fish and Wildlife Conservation Office:**
  - Work with partners to monitor status of and threats to endangered northern riffleshell mussel in the St. Clair River watershed (MI).

    "…led Fish and Wildlife Service efforts for collaborative work with Michigan DNR, Michigan Natural Feature Inventory, USGS, Detroit River IWR, Genoa NFH, Jordan River NFH, and the Nature Conservancy for northern riffleshell mussel recovery efforts to identify funding sources and identify research needs in the Huron-Erie Corridor…"

– **Carterville National Fish and Wildlife Conservation Office will:**
  - Participate in the Middle Basin Pallid Sturgeon Workgroup through attendance at meetings and/or reviewing documents or otherwise providing input (IL, MO).

    "…participated in multi-agency teams addressing pallid sturgeon and habitat improvement issues; participated in the MICRA Paddlefish/Sturgeon Committee and provided input on pallid sturgeon research needs…"
  - Investigate the feasibility of placing telemetry receivers in the Lower Ohio River to detect pallid sturgeon or other fish tagged in the Mississippi River that might move up the Ohio River. If feasible, receivers will be put in place (IL).

    "…constructed stands to deploy stationary receivers in the Lower Ohio River - a test stand (without a stationary receiver) was deployed but was unable to be retrieved - it is likely that water depth (>40 feet) and sediment bed load, which moves sand dunes as much as 8 feet tall across the river bed, prevented the successful retrieval of the stationary stand - concluded that submersed stands in the Lower Ohio River are not feasible…"

– **Columbia National Fish and Wildlife Conservation Office:**
  - Serve as the Lower Missouri River Pallid Sturgeon Recovery Work Group Leader and coordinate endangered pallid sturgeon recovery efforts, including management, propagation and stocking in the Lower Missouri River (IA, KS, MO, NE).

Aquatic Species Conservation and Management

"…served as Middle Basin Pallid Sturgeon Workgroup chairperson and coordinated pallid sturgeon recovery efforts in the Lower Missouri River…"

- Monitor the status of the pallid sturgeon population and associated fish community in the Lower Missouri River (IA, KS, MO, NE).

"…assessed the pallid sturgeon population and associated fish community in the Lower Missouri River…"

- Monitor the effectiveness of the pallid sturgeon shallow water habitat created by U. S. Army Corps of Engineers activities in Lower Missouri River (IA, KS, MO, NE).

"…assisted the U.S. Army Corps of Engineers with evaluation of pallid sturgeon shallow water habitat in the Lower Missouri River…"

- Monitor pallid sturgeon behavior and response to the Spring Rise in the Lower Missouri River (IA, KS, MO, NE).

"…U.S. Army Corps of Engineers did not monitor Spring Rise response in the Lower Missouri River…"

- Provide technical assistance to the Niangua Darter Recovery Team to recover darters in the Osage River basin (MO).

"…provided technical assistance to the Niangua Darter Recovery Team…"

- Provide technical assistance to update the Pallid Sturgeon Recovery Plan (IA, KS, MO, MT, NE, ND, SD).

"…assisted the Pallid Sturgeon Recovery Team with updating the Recovery Plan…"

- Provide technical assistance to Ft. Leavenworth Army Post to develop endangered species management plan (KS).

"…worked with Fort Leavenworth Army Post on an endangered species management plan…"

– **La Crosse National Fish and Wildlife Conservation Office:**

- Work with partners to collect, re-distribute and monitor endangered Higgins' eye pearlymussels for recovery efforts in the Upper Mississippi River basin (IL, IA, MN, WI).

"…worked with partners to collect, re-distribute and monitor Higgins' eye pearlymussels recovery in Pools 2 and 4 of the Upper Mississippi River basin and the St. Croix River…"

- Work with partners to collect and aggregate endangered winged mapleleaf mussels for recovery efforts in the Upper Mississippi River basin (MN, WI).

"…worked with partners to collect and aggregate endangered winged mapleleaf mussels for recovery efforts in the Upper Mississippi River basin …"

- Serve on the Topeka Shiner Recovery Team (IA, MN, MO).

"…served on the Topeka Shiner Recovery Team and coordinated a meeting of Fish and Wildlife Service personnel on future activities…"

– **Genoa National Fish Hatchery:**

- Culture winged mapleleaf mussel juveniles for reintroductions and stocking under an interagency recovery program in the Upper Mississippi River basin (MN, WI).

"…infested 600 channel catfish, to hold over-winter and stock in the St. Croix River system and Pool 4 of the Upper Mississippi River for further grow-out in propagation cages - an estimated 81,000 juvenile winged mapleleaf mussels were produced from these efforts…"

- Develop and maintain a disease free source of channel catfish to use as host fish for winged mapleleaf mussel recovery efforts (MN, WI).

"…worked with the Minnesota DNR and USGS Upper Mississippi Environmental Science Center - acquired a disease free source of Minnesota River channel catfish that will be developed into a captive brood line at the station - this is important due to the fact that the Ohio River strain of catfish had to be removed from the cages and destroyed every year to not mix Ohio River genetics into the St. Croix population of channel catfish - this will allow these fish to be released into the watershed with little risk of out-breeding depression through the introduction of foreign genetic material into locally adapted populations…"

Aquatic Species Conservation and Management

-USFWS

This juvenile mussel is the first endangered winged mapleleaf cultured in the recovery program.

- Culture Higgins' eye pearlymussels for stocking under an interagency recovery program in the Upper Mississippi River basin (IL, IA, MN, WI).
  "…produced 759,916 juvenile Higgins' eye pearlymussels for recovery efforts in the Upper Mississippi River basin - included all aspects of the propagation program from building the culture cages, collecting brood mussels with the hatchery dive team, infesting host fish at the station, and placing host fish in cages or free-releasing…"
- Culture approximately 8,000 yearling host fish of various species for endangered Higgins' eye pearlymussel recovery efforts (IL, IA, MN, WI).
  "…due to poor over-winter survival in hatchery culture ponds, only 3,575 host fish were available for stocking this fiscal year - this may have been due to the attempt to feed-train this fiscal year's host fish with artificial diets to reduce disease potential by not feeding live fish - this was only partially successful, and the smaller size fish available at the end of the growing season may have led to increased over-winter mortality in the pond…"

– **Neosho National Fish Hatchery:**
- Culture and tag 5,000 endangered pallid sturgeon (9 inch) for stocking under an interagency (e.g. Missouri Department of Conservation, Iowa DNR, and U.S. Army Corps of Engineers) recovery program in the Missouri River (MO, IA, KS, NE) **(Partially funded by FONS Project # 2002-007).**
  "…cultured 6,000 pallid sturgeons of which 2,000 were tagged and released into the Middle Basin of the Lower Missouri River in October, and the remainder will be stocked during the spring of 2008 at 9 inches…"
- Provide technical assistance to complete the Pallid Sturgeon Propagation and Stocking Plans for the Missouri River (IA, KS, MO, MT, NE, ND, SD).
  "…provided assistance to complete the Pallid Sturgeon Propagation and Stocking Plans for the Missouri River…"
- Protect the water source for the threatened Ozark cavefish on a portion of the hatchery (MO) (**Fully funded by FONS Project 2002-004**).
  "protected the water source for the threatened Ozark cavefish on a portion of the hatchery…"

-USFWS

Federally endangered pallid sturgeon are reared at the Neosho NFH as part of a recovery plan. The hatchery warms culture water to produce a larger fish for stocking.

– **La Crosse Fish Health Center:**
- Complete one fish health assessments per year on pallid sturgeon cultured at the Neosho NFH (MO).
  "…completed one fish health assessment on pallid sturgeon cultured at the Neosho NFH…"
- Complete at least one fish health assessment per year at Genoa NFH on host fish used for freshwater mussel culture (WI).
  "…completed fish health assessments at Genoa NFH on host fish used for freshwater mussel culture.."

Aquatic Species Conservation and Management

- Provide technical assistance on pallid sturgeon fish health for Region 3 (IA, MO).
  "…provided technical assistance on pallid sturgeon fish health for the Midwest Region…"

– **Marquette and Ludington Biological Stations will:**
- Complete a programmatic Endangered Species Act Section 7 consultation with the Ecological Services program to ensure the conservation of all listed Great Lakes species during sea lamprey control operations. (IL, IN, MI, MN, NY, PA, OH, WI).
  "…worked with the East Lansing Field Office to complete an informal Section 7 Consultation on sea lamprey control operations in Michigan, and submitted the document to the Region 3 Division of Endangered Species as a preliminary step in conducting a formal Great Lakes-wide consultation involving Regions 3 and 5; rescheduled 2007 lampricide treatments on the Milakokia River, Gulliver Lake Outlet, Big Sucker Creek and the Platte River, to avoid the piping plover nesting season…"

Interjurisdictional Species

Interjurisdictional Fisheries Goal: Interjurisdictional fish populations are managed at self-sustaining levels.

Our primary focus is on supporting, facilitating, and/or leading collaborative approaches to conserve and restore sustainable interjurisdictional fish populations.

Objective – Co-manage interjurisdictional fisheries.
Objective - Support, facilitate, and/or lead collaborative approaches to manage interjurisdictional fisheries.

Our Commitment
– **Regional Office will:**
- Work with partners through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund activities supporting collaborative approaches to managing interjurisdictional fisheries (IL, IN, MI, MN, NY, OH, PA, WI).
  "…the following Restoration Act funded projects were in progress or completed during FY2007: Modeling historic and temporal variation of Great Lakes walleye maturation schedules - University of Michigan; Development of a GIS for Great Lakes aquatic habitat - University of Michigan; Responses of lake trout and Chinook salmon to unprecedented declines in major prey fish abundance in Lake Huron - Michigan State University; Developing and testing models of lake herring (*Coregonus artedi*) population dynamics in Lake Superior: Implications for restoration in the Lower Great Lakes - Michigan State University; Dynamics and biology of siscowet lake trout in Lake Superior - Michigan State University; Biophysical model of Lake Erie walleye recruitment - Michigan State University; Development of genetic management guidelines for lake sturgeon - University of California, Davis; Huron-Erie corridor system habitat assessment - The Ohio State University; Food habits of Lake Ontario offshore prey fish - Great Lakes Fishery Commission; Assessment of pit tags for estimating exploitation of walleyes in Lake Erie and Saginaw Bay - Ohio Department of Natural Resources; In-situ determination of the depth and thermal habitat used by Chinook salmon - USGS Great Lakes Science Center and Chippewa Ottawa Resources Authority; Lake Huron lake whitefish distribution study - Chippewa Ottawa Resources Authority; and Lake Erie aquatic habitat geographic information system (GIS) - Michigan Department of Natural Resources…"
- Work through the Council of Lake Committees to pursue collaborative approaches to managing interjurisdictional fisheries (IL, IN, MI, MN, NY, OH, PA, WI).

Aquatic Species Conservation and Management

-USFWS

Project Leader Jerry McClain (rt.) and biologist Scott Koproski of the Alpena National Fish and Wildlife Conservation Office lift a gillnet used during the *M/V Spencer F. Baird's* maiden assessment survey.

-USFWS

La Crosse Fish Health Center biologist Ken Phillips samples Lake Erie walleye for viral hemorrhagic septicemia Virus.

"…worked through the Council of Lake Committees to pursue collaborative approaches to managing interjurisdictional fisheries…"

– **Alpena National Fish and Wildlife Conservation Office will:**
  - Participate through the Lake Huron Technical Committee (LHTC) to conserve, restore and manage interjurisdictional fish stocks in Lake Huron and the St. Marys River (MI).

    "…serve as Fish and Wildlife Service member of LHTC and participated in winter and summer meetings; serve as chair of the St. Marys River Fishery Task Group and coordinated three meetings and provided information on activities of the Task Group at winter and summer meetings of the LHTC…"
  - Participate through the Habitat Task Group for the Lake Erie Committee to conserve, restore and manage habitats important to interjurisdictional fish stocks in Lake Erie (MI).

    "…led Fish and Wildlife Service efforts on the Habitat Task Group for collaborative work with partners from Ohio Department of Wildlife (DOW), Michigan DNR, Ontario MNR and USGS to develop and report to the Lake Erie Committee and Great Lakes Fishery Commission (GLFC) on recent and current habitat projects and to identify future funding and research needs in the Huron-Erie Corridor and Lake Erie, and attended two meetings and participated in three conference calls of the Habitat Task Group…"
  - Assist Michigan, CORA and tribal parties to the Consent Decree in managing interjurisdictional fisheries in the 1836 Treaty waters of Lake Huron through the Technical Fisheries Committee (TFC), Modeling Subcommittee (MSC) and Executive Council (MI).

    "…served as chair of TFC , co-chair of MSC and led Fish and Wildlife Service efforts for modeling efforts in Northern Lake Huron 1836 Treaty waters; led Fish and Wildlife Service efforts for briefing of the Deputy Regional Director and Field Solicitor for involvement in Executive Council issues relating to Lake Huron fisheries…"
  - Process lake trout heads recovered from CORA assessment and commercial fisheries, Michigan DNR sport fishery, and Service assessment operations, for coded-wire tag data recovery (MI).

    "…extracted and read 477 coded-wire tags in 2007 and provided tag numbers to the originating offices…"
  - Provide data input to U.S. Geological Survey for the Lake Huron coded-wire tag database for use in managing interjurisdictional fisheries in Lake Huron (MI).

    "…provided coded-wire tag data recovered from Alpena NFWCO assessment activities to USGS Great Lakes Science Center…"

Aquatic Species Conservation and Management

– **Ashland National Fish and Wildlife Conservation Office will:**
  - Participate through the Lake Superior Technical Committee to conserve, restore and manage interjurisdictional fish stocks in Lake Superior (MI, MN, WI).

    "…solicited presentations on fisheries issues for the October SOL Conference, developed topics for discussion and action by the ACC including progress made on the 2004-06 work plan, and development of work plan priorities for 2007-09 in conjunction with the winter Lake Superior Technical Committee meeting; contributed data and expertise to develop oral presentations for the 2007 Lake Committee meetings which will feature Lake Superior's aquatic ecosystem…"
  - Provide staff member to serve as the chair person for the Lake Superior Lake Sturgeon Committee (MI, MN, WI).

    "…provided staff as needed/requested by the Lake Superior Lake Sturgeon Committee…"
  - Assist Michigan, CORA and tribal parties to the Consent Decree in managing interjurisdictional fisheries in the 1836 Treaty waters of Lake Superior through the Technical Fisheries Committee (MI).

    "…read lake trout scales from various creel check points on Lake Superior - scales were collected in both 1836 and 1842 treaty waters of Lake Superior…"
  - Assist Michigan, Minnesota, Wisconsin, Great Lakes Indian Fish and Wildlife Commission and member tribes in managing interjurisdictional fisheries in the 1837 and 1842 Treaty ceded waters (MI, MN, WI).

    "…read of lake trout scales from various creel check points on Lake Superior – scales were collected in both 1836 and 1842 treaty waters of Lake Superior…"

– **Carterville National Fish and Wildlife Conservation Office will:**
  - Participate in the Mississippi Interstate Cooperative Resource Agency - Paddlefish/Sturgeon Committee to improve and coordinate management activities (IL, IN, IA, MN, MO, OH, WI).

    "…participated in the MICRA Paddlefish/Sturgeon Committee…"

– **Columbia National Fish and Wildlife Conservation Office will:**
  - Participate in the Mississippi Interstate Cooperative Resource Agency Paddlefish/Sturgeon Subcommittee to improve and coordinate management activities (IL, IN, IA, MN, MO, OH, WI).

    "…worked with MICRA and its 23 member states to coordinate management activities for paddlefish and sturgeon…"

– **Green Bay National Fish and Wildlife Conservation Office will:**
  - Participate through the Lake Michigan Technical Committee (LMTC) to conserve, restore and manage interjurisdictional fish stocks in Lake Michigan (IL, IN, MI, WI).

    "…participated in LMTC activities and assignments - served as chair and members of several working groups…"
  - Assist Michigan, CORA and tribal parties to the Consent Decree in managing interjurisdictional fisheries in the 1836 Treaty waters of Lake Michigan through the Technical Fisheries Committee, Modeling Subcommittee and the Executive Council (MI).

    "…participated in TFC and MSC activities; serve as co-chair of the MSC; provided assistance and guidance to the Federal team for participation in deliberations of the Executive Council…"
  - Maintain the following interagency databases: Great Lakes Fish Stocking Database, Lake Michigan Creel Summary and Lake Michigan Coded-Wire Tag Return Data (IL, IN, MI, MN, NY, OH, PA, WI).

    "…completed annual updates and reports for the Great Lakes Fish Stocking Database, Lake Michigan Creel Summary and Lake Michigan Coded-Wire Tag Return Data databases…"

– **La Crosse Fish Health Center will:**
  - Work with States and Tribes and other Federal agencies to coordinate regional responses and actions to new fish diseases, such as the spring viremia of carp virus, viral hemorrhagic septicemia, and the largemouth bass virus (IL, IN, IA, MI MN, MO, OH WI).

    "coordinated regional responses and actions to new fish diseases…"

Aquatic Invasive Species

-GLFC

A Sea Lamprey Control technician uses backpack electrofishing gear to assess where future lampricide treatments will be required in Great Lakes tributaries and the effectiveness of past control actions.

-GLFC

Gregg Baldwin of the Marquette Biological Station presents information to Kingsford High School students on negative impacts of invasive species in the Great Lakes.

-Les Thomas (MSU Extension)

Susan Wells shows students a preserved invasive sea lamprey during a school presentation.

Goal/Actual Accomplishment for FY 2007

Performance Measures (Fisheries Strategic Plan v. 11)

Aquatic Nuisance Species

	Regional Fisheries	Alpena NFWCO	Ashland NFWCO	Carter-ville NFWCO	Columbia NFWCO	Genoa NFH	Green Bay FRO	Iron River NFH	Jordan River NFH	La Crosse FHC	La Crosse NFWCO	Neosho NFH	Pendills Creek NFH	Sea Lamprey Control
Number of risk assessments conducted by the Region	Goal	Goal	Goal	Goal	Goal	Goal	Goal	Goal	Goal	Goal	Goal	Goal	Goal	Goal
	0/0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Number of aquatic invasive species populations controlled / managed by the Region	0/0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Number of state/interstate ANS plans supported by the Region	7/7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Number of public awareness campaigns conducted and supported by the Region	5/5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Number of effective partnershipssupported by the Region	2/2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Number of surveys conducted for aquatic invasive species baseline/trend information supported by the Region	3/3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Number of activities conducted for rapid response by the Region	2/2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Aquatic Invasive Species

Aquatic Nuisance Species Goal: Risks of aquatic nuisance species invasions are substantially reduced, and their economic, ecological, and human health impacts are minimized.

-USFWS

Educational watch cards for invasive round goby and Eurasian ruffe are part of the kiosk at the Presque Isle Marina boat landing near Marquette, Michigan.

Our primary focus is on education, preventing new introductions of aquatic invasive species (AIS), and working with others to reduce the impacts from Asian carp, zebra mussels, round gobies, sea lamprey, rusty crayfish, Eurasian water milfoil, spiny water fleas, and Eurasian ruffe.

Objective – Prevent new introductions of aquatic nuisance species.

Our Commitment

– **Regional Office will:**

- Work with partners through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund activities reducing the risk of a AIS introductions (IL, IN, MI, MN, NY, OH, PA, WI, and Ontario).

  "…the following Restoration Act funded projects were in progress or completed during FY 2007: Boggy bottoms wetland restoration - Ducks Unlimited; Lake St. Clair coastal wetland enhancement - Ducks Unlimited; and Lake Erie water snake recovery plan implementation: Demographic responses to invasive round gobies - Northern Illinois University…"

- Work to implement priority actions, of the Aquatic Invasive Species Strategy Team, listed in the Great Lakes Regional Collaboration's (GLRC) *Strategy to Restore and Protect the Great Lakes* (IL, IN, MI, MN, NY, OH, PA, WI).

  "…will continue to work with other Federal agencies in the Aquatic Invasive Species Rapid Response Subcommittee of the Regional Working Group - specifically, that subcommittee will continue to serve as central point of Federal contacts related to aquatic invasive species rapid response efforts in Great Lakes basin - the subcommittee will explore a broader collaboration with state, tribal and city agencies as part of the Great Lakes Regional Collaboration (GLRC)…"

- Provide technical assistance to the States of Minnesota and Missouri to assist development of their State Aquatic Nuisance Species (ANS) Management Plans (MN, MO)

  "…provided assistance to the States of Missouri and Minnesota - Missouri completed its state ANS plan, and Minnesota will soon be completing its comprehensive (aquatic and terrestrial) invasive species plan…"

- Support all approved State and Interstate (St. Croix) ANS Management Plans (IL, IA, MI, MN, OH, WI).

  "…allocated funding for all approved plans during FY2007 - modifications to the existing and new cooperative agree-

Habitatitude - Protect our Environment - Do not release fish and aquatic plants.

Aquatic Invasive Species

-USFWS

A bowfisher offloads one of the invasive bighead carp from a recent "hunt" in Kentucky. With about 10,000 pounds of fish harvested during bowfishing tournaments, this might prove to be an effective tool to address the growing number of Asian carps in the wild.

-Department of Ecology

Grass Carp or White Amur

-USFWS

Hundreds of invasive silver carp leap into the air on the Illinois River after a paddlewheeler passes by.

ments were developed and sent to cooperators (state and tribal entities) for their approval…"

- Support the Great Lakes and Mississippi River basin ANS Regional Panels (IL, IN, IA, MI, MN, MO, OH, WI, and others within the Basins).

  "…participated in two meetings of the Great Lakes Panel; serve as co-chair of the Mississippi River Basin Panel and helped plan, convene and lead one meeting of the Panel, lead development of work plans for panel committees, and execute work of the Panel between the meetings…"

- Work with the Cabela's store in Owatonna, Minnesota, and Minnesota DNR to complete a kiosk to help educate the 2 million visitors that visit the store annually about AIS, their impacts, agency activities, and what people can do to prevent the spread and minimize impacts (MN).

  "…completed the Cabela's store AIS kiosk which is educating store visitors…"

- Work with Wildlife Forever, Minnesota and Wisconsin Departments of Natural Resources, Minnesota and Wisconsin Sea Grant, and U.S. Forest Service to purchase billboard spaces that educate anglers and boaters about how they can help stop the spread of AIS (MN, WI).

  "…partnered with Wildlife Forever, Minnesota and Wisconsin DNR's, Minnesota and Wisconsin Sea Grant, and U.S. Forest Service to: purchase billboard and airport diorama spaces; produce distribute, and air public service announcements; and exhibit at the Mall of America - those outreach materials and venues were seen by an estimated total of 131 million people in 2007 - messages are designed to educate anglers and boaters about how they can help stop the spread of AIS (Minnesota, Wisconsin, and other states in which Fox Sports Network, Fox Sports Pittsburgh, Fox Sports Florida, Comcast West, Sports South, Sportsman Channel, and other networks are aired)…"

– **All National Fish and Wildlife Conservation Offices will:**

- Complete Hazard Analysis and Critical Control Point (HACCP) plans for each discrete activity (e.g., gill netting, seining, electrofishing, stocking) with risk of spreading AIS. HACCP plans will be implemented, updated, and modified as needed in the future (IL, IN, IA, MI, MN, MO, OH, WI).

  "…Alpena NFWCO completed HACCP plans for all fishery and habitat related activities - plan was implemented in FY2007 and will be reviewed and updated in early FY2008…"

  "…Ashland NFWCO completed HACCP plans as described…"

  "…Carterville NFWCO has a HACCP plan in place, but began updating the plan to make it fit better with current

Aquatic Invasive Species

projects - the updated plan will be fully implemented in 2008…"
"… Columbia NFWCO completed a HACCP for field sampling activities…"
"… Green Bay NFWCO completed a HACCP for field sampling activities…"
"…La Crosse NFWCO completed a HACCP for field sampling activities and began implementing it…"

- Deliver educational programs and materials to the public about the threat of AIS and actions the public can take to prevent introduction and spread of AIS (IL, IN, IA, MI, MN, MO, OH, WI).

"…Alpena NFWCO participated in five educational programs by providing presentations about Asian carp and other AIS; provided AIS educational materials and specimens for viewing at five public outreach events; station coordinator met with over 45 bait and license vendors to aid distribution of over 9,000 handout items relating to the threat of AIS to enhance prevention of introduction and spread of AIS; made available information about AIS and station efforts to monitor and detect early invasions of these species, to the public through the station website…"
"…Ashland NFWCO collaborated in drafting the report, *Surveillance for Ruffe in the Great Lakes, 2006*; continued technical assistance to the U.S. Environmental Protection Agency (EPA) Laboratory (Duluth, Minnesota) in developing an AIS early detection monitoring design…"
"…Carterville NFWCO participated in 'Southern Illinois Hunting and Fishing Days' where hundreds learned about Asian carps and other AIS issues; participated in a number of smaller educational events where AIS issues were discussed with the public, especially children…"
"…Columbia NFWCO delivered 34 education and outreach programs to the public where AIS was discussed…"
"…Green Bay NFWCO provided information on AIS to school groups and the public…"
"…La Crosse NFWCO continued to distribute the Bill Dance video on Asian carp; provided ANS literature at four large and over 25 smaller educational events; conducted the annual Carp Corral/Goby Round Up that resulted in national, regional and local coverage from electronic and print media (including ABC, CBS, and FOX, Washington Post, WBBM, National Public Radio); distributed Asian carp signs for posting at landings on the Upper Mississippi River System; and provided AIS information via our website and individual requests…"

- Provide technical assistance and information exchange to agencies and researchers investigating prevention, containment, and control measures for AIS (IL, IN, IA, MI, MN, MO, OH, WI).

"…Alpena NFWCO collected round goby specimens for the University of Toledo to assist research in the genetic origin of native and invasive species…"
"…Ashland NFWCO collaborated in drafting the report, *Surveillance for Ruffe in the Great Lakes, 2006*; continued technical assistance to the Environmental Protection Agency (EPA) Laboratory (Duluth, Minnesota) in developing an AIS early detection monitoring design…"
"…Carterville NFWCO was actively involved in providing technical assistance, information exchange, and coordination on AIS, particularly Asian carps, to multiple organizations and audiences; worked with partners and stakeholders to align management and control efforts with the *draft Management and Control Plan for Asian Carps in the United States*; fulfilled multiple requests for technical assistance, information and formal presentations…"
"…Columbia NFWCO participated in a workgroup to complete the *Asian Carp Management and Control Plan*..."
"… Green Bay NFWCO provided technical assistance and information exchange to agencies and researchers investigating potential control and prevention measures for new AIS…"
"…La Crosse NFWCO coordinated with the St. Croix River AIS multi-state planning team, the Mussel Coordination Team, and the Mussel Ad Hoc Committee of the Upper Mississippi River Conservation Committee on zebra mussel issues; participated in the Dispersal Barrier Task Force for the Chicago Waterway; reviewed scientific papers for the Upper Midwest Environmental Sciences Center of USGS on Asian carp and bio-bullets…"

Aquatic Invasive Species

-USFWS

Jeff Finley and Cliff Wilson of the Columbia National Fish and Wildlife Conservation Office adjust a push trawl. They are sampling the fish community in shallow water off a sand bar in the Missouri River near Hartsburg, Missouri. The trawl is pushed and fishes under the bow of the boat.

Zebra Mussel Watch Card
"Watch Cards" are available for many invasive species. The cards help people identify invasive species and lists contacts if you encounter one.

-GLFC

A Fish and Wildlife Service technician applies lampricide to a Great Lakes tributary that is infested with invasive sea lamprey larvae.

- Co-sponsor, with the University of Minnesota, a workshop on common carp (MN).

"…co-sponsored this workshop in October, 2006…"

– **Alpena National Fish and Wildlife Conservation Office will:**
  - Conduct surveillance for Eurasian ruffe and other AIS in areas of probable invasion in order to detect early presence and initiate control actions in Lake Huron (MI).

"…conducted surveillance for Eurasian ruffe and other AIS using bottom trawling gear at 13 locations where invasion was considered probable to detect early presence in Lake Huron and the St. Marys River; conducted a spring spawning and a fall young-of-the-year surveillance effort to capture Eurasian ruffe in the Thunder Bay area using small mesh gillnets…"

– **Ashland National Fish and Wildlife Conservation Office will:**
  - Conduct surveillance for Eurasian ruffe and other AIS in areas of probable invasion in order to detect new populations and initiate control actions in Lake Superior (MI, MN, WI).

"…completed fall surveillance of invasive ruffe and other AIS in Lake Superior from the Keweenaw Peninsula, Michigan, to Sault Ste. Marie, Michigan/Ontario; completed a fall investigation of the invasive ruffe population in central and southern Thunder Bay Harbour, Lake Superior; investigated the feasibility of bottom trawling in reducing an abundant invasive ruffe colony in the Kaministiquia River, Ontario, which is a tributary of Lake Superior; summarized data on lake trout, lake whitefish, siscowet, cisco and all species collected during AIS surveys for the Lake Superior State of the Lake report; drafting the report *Surveillance For Ruffe in the Great Lakes, 2006*; completed surveillance trawling for ruffe and other AIS in the two most active of the four United States locks; crewed one of 14 survey vessels that comprised the 12th annual Carp Corral/Goby Round Up in the Illinois Waterway; completed summer monitoring of the invasive fish, ruffe, and native fish by bottom trawling in three Wisconsin tributaries and one Michigan tributary to Lake Superior; continued technical assistance to the EPA Laboratory (Duluth, Minnesota) in developing an AIS early detection monitoring design; completed a fall investigation of invasive ruffe and other AIS in four Southwestern Lake Superior tributaries…"

– **Carterville National Fish and Wildlife Conservation Office will:**
  - Evaluate ecologically safe and economically viable alternatives to black carp for snail control through a cooperative project with Southern Illinois University (IL).

"…worked with Southern Illinois University to develop redear sunfish x warmouth sunfish, redear sunfish x green sunfish, and green sunfish x redear sunfish hybrids - snail

Aquatic Invasive Species

control by these different hybrids was evaluated in aquaria - snail control by larger individuals was evaluated in research ponds - further evaluations will be conducted in FY2008 with co-stocking of hybrid striped bass or channel catfish - white suckers and/or river redhorse may also be evaluated if research specimens can be obtained…"

– **Green Bay National Fish and Wildlife Conservation Office will:**
  - Conduct surveillance for Eurasian ruffe and other AIS in areas of probable invasion in order to detect early presence and initiate control actions in Lake Michigan (MI, WI).

    "…conducted an abbreviated survey in Lower Green Bay…"

– **Genoa National Fish Hatchery will:**
  - Adhere to the station's zebra mussel prevention plan and station's HACCP plans to avoid aquatic invasive species introductions and reduce risks of aquatic invasive species introductions through existing stocking programs (WI).

    "…continued to refine efforts to maintain a disease-free status, especially in the discovery of a new strain of viral hemorrhagic septicemia virus found in the Great Lakes states; continued iodophor disinfection during water hardening of all eggs of every species; maintained captive brood stock lines of nest-making fish species and test them twice yearly - immersed all salmonids in a vaccine to ensure protection against furunculosis and vibrio; HACCP plans updated yearly to address other threats or vectors of transmission…"

– **Iron River National Fish Hatchery will:**
  - Develop and implement HACCP Plans and processes for all relevant operations (WI).

    "…developed and implemented HACCP plans for fish production, distribution, stream shocking, wild gamete collections, egg transfers and isolation programs…"

– **La Crosse National Fish and Wildlife Conservation Office will:**
  - Develop and provide information to commercial and recreational baitfish harvesters that will help prevent accidental and deliberate unauthorized introductions of Asian carps (IL, MN, WI).

    "…completed last fiscal year…"
  - Develop and provide information to recreational fishers and boaters that will help prevent accidental and deliberate unauthorized introductions of Asian carps (IA, MN, WI).

    "…developed and provided information to recreational fishers and boaters to help prevent accidental and deliberate unauthorized introductions of Asian carps…"

Objective – Minimize range expansion and population growth of established AIS.

Our Commitment

– **Regional Office will:**
  - Work through the Aquatic Invasive Species Strategy Team under the Great Lakes Regional Collaboration (GLRC) to identify and prioritize activities to minimize range expansion and population growth of established aquatic nuisance species (IL, IN, MI, MN, NY, OH, PA, WI).

    "…will continue to work with other Federal agencies in the Aquatic Invasive Species Rapid Response Subcommittee of the Regional Working Group - specifically, that subcommittee will continue to serve as central point of Federal contacts related to aquatic invasive species rapid response efforts in Great Lakes basin – the subcommittee will also exploring a broader collaboration with State, Tribal, and City agencies as part of the GLRC…"
  - Work through membership on the Sea Lamprey Integration Committee Core Group to provide planning and recommendations guiding the control of sea lamprey to the Great Lakes Fishery Commission (IL, IN, MI, MN, NY, OH, PA, WI).

    "…participated in two meetings of the Sea Lamprey Integration Committee Core Group, developing the budget and operational priorities for 2007 Great Lakes sea lamprey assessment and control for consideration by the Great Lakes Fishery Commission…"

Aquatic Invasive Species

-USFWS

Ashland National Fish and Wildlife Conservation Office staff and partners completed a survey for aquatic invasive species in the area of the Soo Locks, which is the connection between Lake Superior and the Lower Great Lakes.

-USFWS

Ashland National Fish and Wildlife Conservation Office and Northland College are experimenting with bottom trawling to control invasive Eurasian ruffe.

-USFWS

A receiver is mounted on a stand and ready for deployment, as part of a network in the Illinois River to monitor movements of radio-tagged bighead and silver carps.

- Work with the City of Chicago, State of Illinois, the U.S. Army Corps of Engineers, and the Metropolitan Water Reclamation District of Greater Chicago to stop Asian carp from establishing self-sustaining populations in the Great Lakes (IL, IN, MI, MN, OH, WI).

  "…the La Crosse NFWCO continues to work on the interagency Chicago Sanitary and Ship Canal (Canal) Dispersal Barrier Advisory Panel and its Rapid Response Team, and worked with an interagency team to conduct assessments to detect the abundance and distribution of Asian carp upstream and downstream of the electrical barrier…"

- Assist states to develop, promulgate, and enforce regulations that manage the harvest, transport, import, trade and possession of Asian carps (IL, IN, IA, MI, MN, MO, OH, WI).

  "…developed a mathematical model for bighead carp in portions of the Illinois and Mississippi rivers that provides implications for developing and implementing harvest programs to control populations…"

– **Alpena National Fish and Wildlife Conservation Office will:**

- Conduct Eurasian ruffe and round goby monitoring activities to determine status, population trends and impacts on native fishes in Lake Huron and the St. Marys River (MI).

  "…conducted activities to monitor the status, trends and impacts of invasive Eurasian ruffe and round goby at 13 locations in Lake Huron and the St. Marys River…"

- Coordinate with state, tribal and Federal partners, the U.S. Coast Guard, the Great Lakes Carriers Association and others to detect and control AIS in Lake Huron and Lake Erie (MI, OH).

  "…reported new sightings of confirmed AIS to the Michigan DNR and the USGS Nonindigenous Species Database…"

– **Ashland National Fish and Wildlife Conservation Office will:**

- Coordinate monitoring and surveillance programs for Eurasian ruffe Great Lakes–wide through position as Chair of the Ruffe Control Committee (IL, IN, MI, MN, NY, OH, PA, WI).

  "…participated in a meeting of the Aquatic Nuisance Species Task Force to study the feasibility of developing standardized sampling protocols for detecting and monitoring AIS…"

- Conduct Eurasian ruffe and round goby monitoring activities to determine status, population trends, and impacts on native fishes in Lake Superior (MI, MN, WI).

  "…completed fall surveillance of invasive ruffe and other AIS in Lake Superior from the Keweenaw Peninsula, Michigan, to Sault Ste. Marie, Michigan/Ontario; completed a fall investigation of the invasive ruffe population in central and southern Thunder Bay Harbour, Lake Supe-

Aquatic Invasive Species

rior; investigated the feasibility of bottom trawling in reducing an abundant invasive ruffe colony in the Kaministiquia River, Ontario, a tributary of Lake Superior; summarized data on lake trout, lake whitefish, siscowet, cisco and all species collected during AIS surveys for the *Lake Superior State of the Lake* report; drafting the report *Surveillance For Ruffe in the Great Lakes, 2006*; completed surveillance trawling for ruffe and other AIS in the two most active of the four United States locks; crewed one of 14 survey vessels that comprised the 12th annual Carp Corral/Goby Round Up in the Illinois Waterway; completed summer monitoring of the invasive fish, ruffe and native fish by bottom trawling in three Wisconsin tributaries and one Michigan tributary to Lake Superior; continued technical assistance to the EPA Laboratory (Duluth, Minnesota) in developing an AIS early detection monitoring design; completed a fall investigation of invasive ruffe and other AIS in four southwestern Lake Superior tributaries…"

- Coordinate with state, tribal, and Federal partners, the U.S. Coast Guard, the Great Lakes Carriers Association and others to detect and control AIS in Lake Superior (MI, MN, WI).

  "…drafting the report *Surveillance For Ruffe in the Great Lakes, 2006*…"

- Assist La Crosse NFWCO in monitoring range expansion of round goby, Asian carp and other AIS in the Illinois waterway (IL).

  "…crewed one of 14 survey vessels that comprised the 12th annual Carp Corral/Goby Round Up in the Illinois Waterway…"

– **Carterville National Fish and Wildlife Conservation Office will:**

- Lead the development and implementation of the National Asian Carp Management and Control Plan (IL, IN, IA, OH, MI, MN, MO, WI).

  "…published a public review period for the draft Asian carp management plan in the Federal Register - chaired the Asian Carp Working Group and led the completion of the revised draft plan based on comments received during the review - the final revised draft has been completed and submitted to the ANS Task Force - also provided several briefings and presentations on the draft plan to partners and stakeholder groups to keep them informed of progress…"

- Identify suitable areas for recruitment of Asian carps in the Upper Mississippi River through a cooperative effort with Southern Illinois University (IL, IN, IA, MN, MO, WI)

  "…created a partnership with the La Crosse NFWCO and Southern Illinois University to develop this predictive tool - the GIS database was constructed in FY2007 and predictive maps will be generated in early FY2008 - available data have been used to develop a spatial tool for assessing the physical river characteristics that may influence the life histories and population dynamics of Asian carps in portions of the Upper Mississippi and Illinois rivers - these data will be used to generate probability maps that predict "hot spots" for carp young and adults - once complete, this spatially explicit predictive tool will aid in designing Asian carp removal programs and will help to focus future research…"

- Investigate the feasibility of producing food for zoo animals from Asian carps through a cooperative project with the St. Louis Zoo (IL, IN, IA, OH, MI, MN, MO, WI).

  "…partnered with the St. Louis Zoo to explore beneficial uses for Asian carps - in 2007 the Zoo initiated field and lab work for nutritional evaluation of raw carp puree and development of necessary vitamin supplements to ensure nutritional adequacy and palatability - St. Louis Zoo is evaluating the proximate (water, fat, protein, mineral) and fat-soluble vitamin content of whole carp puree prior to and following gel processing for feeding to various animals - additional analyses will be completed to determine nutrient deterioration under routine storage conditions over time…"

- Inspect and certify shipments of triploid grass carp from private producers to reduce risk of expanding diploid populations in the wild (IL, IN, OH).

  "…conducted 20 inspections of triploid grass carp shipments for two private fish farms in Southern Illinois - thirty-four certificates were issued to ship nearly 16,000 certified triploid grass carp to Illinois, Indiana, and Ohio; also participated in a program meeting with inspectors, states

Aquatic Invasive Species

-USFWS

A sonic transmitter is being surgically implanted into a bighead carp. The fish was captured and released back into the Illinois River, to determine movement patterns of this invasive fish species.

-GLFC/Ellie Koon

This low-head sea lamprey barrier is on the West Branch of the Whitefish River in Delta County, Michigan. The dam prevents invasive sea lamprey adults from reaching upstream spawning areas.

-USFWS

Dozens of invasive silver carp leap out of the boat wake near the Starved Rock State Park on the Illinois River.

and private producers to discuss the program - assisted in the initial planning for a program-sponsored workshop with state management agencies scheduled for 2008…"

- Facilitate the exchange of information on ongoing implementation activities for Asian carps, including informally as well as formally through the Illinois River Governor's Conference as an organizer for a session on Asian carps and through coordination with state partners via the Mississippi River Basin Panel (IL, IN, IA, OH, MI, MN, MO, WI).

  "…provided technical assistance, information exchange and coordination on AIS, particularly Asian carps, to multiple organizations and audiences; worked with partners and stakeholders to align management and control efforts with the draft *Management and Control Plan for Asian Carps in the United States*; fulfilled multiple requests for assistance, information and presentations…"

- Conduct outreach activities to increase awareness of Asian carps and what people can do to minimize range expansion (IL, IN, IA, OH, MI, MN, MO, WI).

  "…participated in 'Southern Illinois Hunting and Fishing Days' where hundreds learned about Asian carps and other AIS issues; also participated in a number of smaller educational events where Asian carp issues were discussed with the public, especially children…"

- Work with partners to improve early detection monitoring in the Illinois River through the use of telemetry to monitor movements of fish in the pools leading up to the electrical barrier in the Chicago Sanitary and Shipping Canal between the Mississippi River and Lake Michigan (IL, IN, OH, MI, MN, WI).

  "…in cooperation with partners, constructed a network of stationary receivers in a 60-mile stretch of the Illinois River immediately below the electric dispersal barrier - surgically implanted transmitters in 16 Asian carps for early detection monitoring - downloaded data from the receivers, reported initial results, and trained partners to operate and maintain the network; coordinated with partners to arrange for the long-term maintenance and retrieval of data from the network…"

- Assist with standardized early detection sampling on the Illinois River to evaluate progression of Asian carps toward the electrical barrier in the Chicago Sanitary and Shipping Canal (IL, IN, OH, MI, MN, WI).

  "…in cooperation with partners, constructed a network of stationary receivers in a 60-mile stretch of the Illinois River immediately below the electric dispersal barrier - surgically implanted transmitters in 16 Asian carps for early detection monitoring - downloaded data from the receivers, reported initial results, and trained partners to operate and maintain the network…"

Aquatic Invasive Species

- Assist with the Goby Roundup/Carp Corral as part of an ongoing effort to monitor the distribution of round goby and Asian carps in the Illinois River (IL, IN, OH, MI, MN, WI).

  "…in cooperation with partners, constructed a network of stationary receivers in a 60-mile stretch of the Illinois River immediately below the electric dispersal barrier - surgically implanted transmitters in 16 Asian carps for early detection monitoring - downloaded data from the receivers, reported initial results, and trained partners to operate and maintain the network…"

– **Columbia National Fish and Wildlife Conservation Office will:**

- Work with Missouri Department of Conservation, University of Columbia, St. Louis Zoo, and U.S. Geological Survey to determine the feasibility of utilizing Asian carp in the pet food industry and as a food supply for zoo animals (MO).

  "…developed a relationship with a veterinarian at the University of Missouri-Columbia specializing in animal nutrition to examine feasibility of using Asian carps in pet foods…"

- Evaluate gear and harvest method effectiveness on Asian carps, develop new gears if necessary and provide information to commercial fishers (MO).

  "…worked with Innovative Nets of Louisiana to design and test nets to capture Asian carps…"

– **Green Bay National Fish and Wildlife Conservation Office will:**

- Coordinate with state, tribal, and Federal partners, the U.S. Coast Guard, the Great Lakes Carriers Association and others to detect and control AIS in Lake Michigan (MI, IL, IN, WI).

  "...conducted an abbreviated survey in Lower Green Bay…"

– **La Crosse National Fish and Wildlife Conservation Office will:**

- Monitor the range expansion of zebra mussels on the St. Croix River and Upper Mississippi River (MN, WI).

  "…monitored the range expansion of zebra mussels on the St. Croix River and Upper Mississippi River by monitoring plate samplers and diving on natural and man-made habitats…"

- Lead the Service's effort to coordinate and monitor the range expansion and changes in abundance of round gobies and Asian carp in the Illinois River and Waterway (IL).

  "…led the Fish and Wildlife Service's effort to coordinate and monitor the range expansion and changes in abundance of round gobies and Asian carps in the Illinois River and Waterway with the annual Goby Roundup/Carp Corral over a nearly 200-mile stretch (14 boats involved in this effort…"

- Work with partners to monitor Asian carp in the Illinois River and Waterway (IL).

  "…worked with partners to monitor Asian carps in the Illinois River and Waterway by both netting and an automated telemetry system…"

– **Marquette and Ludington Biological Stations will:**

- Plan and conduct sea lamprey assessment and control operations in coordination with the Great Lakes Fishery Commission, Fisheries and Oceans Canada, U.S. Geological Survey along with state, tribal, and university partners (IL, IN, MI, MN, NY, OH, PA, WI, Ontario)

  "…conducted lampricide treatments in 68 tributaries; completed larval assessment activities in about 180 tributaries and offshore areas of lakes Superior, Michigan, Huron, Erie and Ontario to identify streams that need lampricide treatment during 2008 and to determine the effectiveness of past control actions; continued surveys to monitor recruitment and long-term trends of abundance in the St. Marys River through use of deep-water electrofishing gear and global positioning technology; sterilized and release about 32,000 male sea lampreys into the St. Marys River during 2007 - this combined with enhanced trapping efforts reduced reproduction in the river by 81%; operated, maintained and evaluated performance of about 33 sea lamprey barriers throughout the Great Lakes and worked cooperatively with partners to ensure sea lampreys remained blocked at other key dams…"

Aquatic Invasive Species

-GLFC

This trap captures invasive sea lampreys below the dam on the Manistique River, Michigan, before they can reach spawning areas upstream of the dam.

-GLFC

Amanda Bedora displays an adult invasive sea lamprey to students from the Menominee, Michigan, school district.

-GLFC

A n invasive sea lamprey presses its mouth against the glass of an aquarium. Sea lampreys are parasites and attach to fish and feed off their prey's body fluids. The sharp tooth in the middle is used to rasp a hole into the side of a fish.The sea lamprey program continues to work closely with partners to control populations of sea lampreys in tributaries of the Great Lakes to protect the fishery and related economic activities in the basin (an estimated benefit of $4-6 billion/year to the region).

- Meet the species-specific international treaty obligation to control sea lamprey populations (IL, IN, MI, MN, OH, WI) (**FY05 Department of the Interior Performance Measure**).

"…estimated abundance of spawning-phase sea lampreys in each of the Great Lakes during 2007 - in Lake Superior, the estimated abundance (65,000) of sea lampreys in 2007 was the lowest since 1998 - in Lake Michigan, an increase in abundance (167,000) was again observed in 2007 making this the highest estimate on record for the past 30 years - in Lake Huron, the abundance (160,000) during 2007 has remained about the same as during 2003-2006 - in Lake Erie, the third consecutive year of estimated high abundance (>16,000) suggests not only increased sea lamprey numbers but also decreased lake trout abundance - in Lake Ontario, the abundance (31,000) during 2007 dropped dramatically compared to the 2004-2006 period; conducted mark/recapture estimates in five streams to support research designed to evaluate an alternative method of ranking streams for treatment in cooperation with Michigan State University scientists; collected more than 30,000 larval sea lampreys for use in Great Lakes Fishery Commission (GLFC) funded research; coordinated and obtained all required permits to conduct sea lamprey management activities with various state, tribal, and Federal partners…"

-GLFC

Biologist Lisa Corradin electrofishes for larval sea lamprey. Data is used to estimate abundance in various tributary streams.

Public Use

-Photo by Ken Roberts

Volunteers and staff from the Illinois Department of Natural Resources, Carterville National Fish and Wildlife Conservation Office, and Crab Orchard National Wildlife Refuge create crappie habitat from trees and cinder blocks for key locations in Crab Orchard Lake.

-USFWS photo by Nathan Caswell

Project Leader Rob Simmonds of the Carterville National Fish and Wildlife Conservation Office shows off a net full of bass and sunfish captured as part a fishery survey on Crab Orchard Lake, Illinois.

-USFWS

David Hendrix (left) and Roderick May staff a booth at Wildcat Park in Joplin, MissouriNational Fish and Wildlife Conservation Office.

Goal/Actual Accomplishment for FY 2007

Performance Measures (Fisheries Strategic Plan v. 11)

Public Use

	Regional Fisheries Goal	Alpena NFWCO Goal	Ashland NFWCO Goal	Carter-ville NFWCO Goal	Columbia NFWCO Goal	Genoa NFH Goal	Green Bay NFWCO Goal	Iron River NFH Goal	Jordan River NFH Goal	La Crosse FHC Goal	La Crosse FRO Goal	Neosho NFH Goal	Pendills Creek NFH Goal	Sea Lamprey Control Goal
Total number of visitors to service Fisheries facilities	75000/93079	0	161	30	980	18008	0	2200	17000	0	2200	45000	7500	0
Number of aquatic outreach and education events NFHS/FWCO	266/349	36	9	8	34	55	3	16	15	5	114	20	34	0/0
Number of mitigation tasks implemented as prescribed in approved management plans. 0				(PART) 1	1/1 0	0 0	0	0	0	0	0	0	0	0
Number of fish populations for which the Fisheries Program has a statuatory or responsibility, that currently provide recreational fishing opportunities - NFHS (PART)				programmatic re 2/2	NA	NA	NA	NA	2	NA	0	0	0	NA

Public Use

Recreational Fishing Goal: Quality opportunities for responsible fishing and other related recreational enjoyment of aquatic resources on Service lands, on Tribal and military lands, and on other waters where the Service has a role.

Our primary focus is on enhancing recreational fishing opportunities on Service, Tribal, and Department of Defense lands.

Objective - Enhance recreational fishing opportunities on Service and Department of Defense lands.

-USFWS photo by Heather Rawlings

Bob Kavetsky educates students about invasive species during the Aquatic Species Awareness and Earth Day event held in Lansing, Michigan. Alpena National Fish and Wildlife Conservation Office and East Lansing Field Office staffed the event which was hosted by several State of Michigan agencies.

-USFWS/ColbyWrasse

Carterville National Fish and Wildlife Conservation Office biologist Nate Caswell takes a scale sample from a wallye captured during night electrofishing in Lake Greenwood, located on the Crane Naval Surface Warfare Center.

Our Commitment

- **Alpena National Fish and Wildlife Conservation Office will:**
  - Host National Fishing Day events and organize additional aquatic education and fishing clinics in Michigan (MI).
    "…participated in two recreational fishing events in Michigan, one of which was held on National Fishing Day…"
- **Ashland National Fish and Wildlife Conservation Office will:**
  - Participate in National Fishing Day events and aquatic education and fishing clinics in partnership with Whittlesey Creek NWR and Iron River NFH (WI).
    "…coordinated the transfer of 200 catchable-size rainbow trout to the Keweenaw Bay Indian Reservation for three different fishing day activities; participated in the Chequamegon Bay Birding and Nature Festival; presented a backpack electrofishing demonstration to Whittlesey Creek employees…"
  - Assist Whittlesey Creek NWR in evaluating and managing sport fish populations and providing recreational fishing opportunities (WI).
    "…prepared a poster presentation entitled *An Experiment to Establish a Migratory Population of Brook Trout in Whittlesey Creek*; completed a preliminary survey of a fish passage project on Little Whittlesey Creek; helped stock 20,000 (1.5 inch) spring fingerlings and 50 adult coaster brook trout in the Whittlesey Creek watershed; replaced a culvert which inhibited fish passage, within the boundary of Whittlesey Creek NWR…"
  - Assist Whittlesey Creek NWR and the Northern Great Lakes Visitor Center in Migratory Bird Day activities (WI).
    "…participated in the Chequamegon Bay Birding and Nature Festival…"
- **Carterville National Fish and Wildlife Conservation Office will:**
  - Assess recreational fisheries and develop management recommendations on Crab Orchard NWR in conjunction with the Illinois DNR (IL).
    "…hosted several fishing tournaments on Crab Orchard NWR lakes which are popular destinations for recre-

Public Use

ational anglers, and are important to the local economy (Crab Orchard Lake, Little Grassy Lake and Devil's Kitchen Lake are all located within Crab Orchard NWR in Williamson County, Illinois) - the Illinois DNR, Carterville NFWCO and Crab Orchard NWR cooperatively manage these recreational fisheries - 2007 management activities include annual surveys on Little Grassy, Devil's Kitchen, and Crab Orchard lakes, harvest of largemouth bass for stocking in Crab Orchard Lake, and assisting with the placement of fish attractors…"

- Assess recreational fisheries and develop management recommendations on Scott Air Force Base and Crane Naval Weapons Support Center (IL, IN).

"…supported recreational fishing for our nation's military by working with the Department of Defense to insure quality fishing at Scott Air Force Base in Illinois and Naval Support Activity Crane in Indiana - conducted surveys of the fish communities in lakes at both installations - used the information from the fishery surveys to develop management recommendations for the continuation of quality recreational fishing programs…"

– **Columbia National Fish and Wildlife Conservation Office will:**

- Participate in a State of Missouri Fishing Day and the National Hunting and Fishing Day events (MO).

"…participated in National Hunting and Fishing Day in Springfield, Missouri, and Free Fishing Day at Bass Pro Shops in Columbia, Missouri…"

- Assess recreational fisheries and develop management recommendations on DeSoto NWR (IA).

"…analyzed data from biological and creel surveys to provide fish management recommendations to DeSoto NWR…"

- Assess recreational fisheries and develop management recommendations on Big Muddy National Fish and Wildlife Refuge (MO).

"…analyzed data from biological surveys to provide fish management recommendations to Big Muddy NF&WR…"

- Work with Missouri Department of Conservation to assess recreational fish populations before reintroduction of alligator gar and develop management recommendations on Mingo NWR (MO).

"…assisted MDC with population surveys to assess alligator gar reintroductions on Mingo NWR…"

- Assess recreational fisheries and develop management recommendations on the Iowa Army Ammunition Plant (IA).

"…surveyed lake- and stream-fish populations at the Iowa Army Ammunition Plant…"

– **Green Bay National Fish and Wildlife Conservation Office will:**

- Host National Fishing Day events and organize additional aquatic education and fishing clinics (WI).

"…held Aquatic Education Days with local school groups…"

– **La Crosse National Fish and Wildlife Conservation Office will:**

- Co-host Fishing Day events at Tomah Veterans Administration Hospital and participate in Fishing Day events at Minnesota Valley NWR, Necedah NWR, Upper Mississippi River National Wildlife and Fish Refuge and Genoa NFH (MN, WI).

"…co-hosted Fishing Day events at Tomah Veterans Administration Hospital and participated in Fishing Day events at Minnesota Valley NWR, Necedah NWR, Upper Mississippi River National Wildlife and Fish Refuge, and Genoa NFH…"

- Assess recreational fisheries and develop management recommendations on Horicon, Necedah, and Tamarac, Minnesota Valley, and Big Stone NWR's, on a rotational basis (MN, WI).

"…assessed recreational fisheries and reported management recommendations for Trempealeau, Necedah, and the Driftless Area NWR's…"

Public Use

- **Genoa National Fish Hatchery will:**
  - Co-host Fishing Day events at Tomah Veterans Administration Hospital and the hatchery (MN, IA, WI).
    "…over 150 children and adults attended the Annual Friends Group sponsored Kids Fishing Day at the hatchery…"
  - Participate in Fishing Day events as requested at the Upper Mississippi River National Wildlife & Fish Refuge and U.S. Army Corps of Engineers' Blackhawk Park (IA, MN, and WI).
    "…over 100 children and adults were present at the U.S. Army Corps of Engineers Fishing Day at Blackhawk Park - the station set up a learning station with live fish and touch tank…"
  - Culture 15,000 rainbow trout (8-10 inch) for recreational fishing at Fort McCoy and Tomah Veterans Administration Hospital; and Red Lake, Grand Portage, Lac Vieux Desert and Oneida Indian Reservations (WI, MN).
    "…cultured 20,210 catchable-size rainbow trout (10,134 pounds) for five tribes and three government agencies to further recreational fishing opportunities…"
  - Culture walleye for recreational fishing on the Upper Mississippi River National Wildlife & Fish Refuge, Crane Naval Base and Fort McCoy (IA, IN, MN, WI).
    "…cultured over eight million walleye of various life stages to support recreational fishing opportunities on the Mississippi River and two tribal waters…"
  - Culture fish of various species for recreational fishing objectives on Horicon NWR and Upper Mississippi River National Wildlife & Fish Refuge (NW&FR) (IA, MN, WI).
    "…cultured 3.37 million fish of five different species of various life stages to support recreational fishing opportunities on the Horicon NWR and Upper Mississippi River NW&FR…"
  - Culture trout for recreational fishing objectives at a Wisconsin Boy Scout camp (WI).
    "…cultured and stocked 1,100 rainbow trout (550 pounds) for Camp Decorah this fiscal year…"
  - Culture largemouth bass for recreational fishing objectives at Crab Orchard NWR and Crane Naval Base (IA, IN, WI).
    "…cultured and stocked 2,571 (6 inch) largemouth bass for the De Soto NWR; propagated and reared largemouth bass for stockings to Crab Orchard NWR - stockings actually occurred after the fiscal year ended…"
- **Iron River National Fish Hatchery will:**
  - Host National Fishing Day events and organize additional aquatic education and fishing clinics in partnership with the Northern Great Lakes Visitor Center, Whittlesey Creek NWR and Ashland NFWCO (WI).
    "…participated in a Kids Fishing Day event at the Northern Great Lakes Visitor Center…"
- **Jordan River National Fish Hatchery will:**
  - Host National Fishing Day events and organize additional aquatic education and fishing clinics in partnership with the Friends of the Jordan River NFH, Pendills Creek NFH and Alpena NFWCO (MI).
    "…National Fishing Day is currently scheduled during our busy lake trout distribution season; however, the following events were organized and or attended with partners and friends: Johnson's Pond Kids Trout Season Opening Day Fishing Event with Village of Mancelona, Mancelona Bass Festival Committee, and Moore Plumbing and Heating; Earth Day Celebration at Michigan DNR Oden State Fish Hatchery with Friends of the Jordan River NFH, Michigan DNR, Trout Unlimited and many other NGO's; Earth Day Clean Up of North Country Trail with Boy Scouts of America, Friends of the Jordan River NFH and North Country Trail Association; Fish are Fun Kids Educational and Outreach Program with Friends of the Jordan River NFH, Ludington Biological Station and Alpena NFWCO…"

Public Use

- **Neosho National Fish Hatchery will:**
  - Host an "Annual Fishing Outing" for the physically challenged and elderly in nursing homes in the area (MO).
    "…hosted an "Annual Fishing Outing" for the physically challenged and elderly in nursing homes in the area…"
  - Culture 1,500 rainbow trout (9 inch) for the Iowa Veterans Administration Hospital (IA).
    "…cultured 1,500 rainbow trout (9 inches) for the Iowa Veterans Administration Hospital…"
  - Culture 1,000 rainbow trout (17 inch) for the Neosho NFH Annual Kids Fishing Clinic/Derby (MO).
    "…cultured 1,000 rainbow trout (17 inches) for the Neosho NFH Annual Kids Fishing Clinic/Derby…"
  - Culture 4,000 rainbow trout (9 inch) for Missouri Department of Conservation (DOC) (Capps Creek) (MO).
    "…cultured 4,000 rainbow trout (9 inches) for Missouri DOC (Capps Creek)…"
- **Pendills Creek and Sullivan Creek National Fish Hatcheries will:**
  - Host or co-host National Fishing Day events and organize additional aquatic education and fishing clinics in partnership with Seney NWR and the Soo Area Sportsmen's Club (MI).
    "…co-hosted National Fishing Day events and organized additional aquatic education and fishing clinics in partnership with Seney NWR and the Soo Area Sportsmen's Club; hosted two hatchery open house events with our Friends Group…"
- **La Crosse Fish Health Center will:**
  - Co-host Fishing Day events at Tomah Veterans Administration Hospital (WI).
    "…co-hosted Fishing Day events at Tomah Veterans Administration Hospital…"
  - Participate in Fishing Day events at the Upper Mississippi River National Wildlife & Fish Refuge and Genoa NFH (MN, WI).
    "…participated in Fishing Day events at the Upper Mississippi River National Wildlife & Fish Refuge and Genoa NFH; ran a booth at the La Crosse Boat and Sportsman Show…"

Take Me Fishing Campaign

-photos courtesy of the Take Me Fishing Campaign

The Fish and Wildlife Service supports the national campaign to increase participation in recreational angling and boating. The Recreational Boating and Fishing Foundation sponsors the *Take Me Fishing* advertising campaign and highlights National Boating and Fishing Week events (http://www.rbff.org/).

Public Use

-USFWS

Members of the Friends of the Iron River National Fish Hatchery enjoy a hike on the hatchery property. Many of the friends spent countless hours developing trails for enjoyment by the public.

-USFWS photo by Tim Smigielski

Wayne Talo staffs the Fish and Wildlife Service booth at the Northland Sportsman's Club Family Hunting and Fishing Expo.

-USFWS

Snowmobilers gather for a group photo during an outreach event held at the Pendills Creek National Fish Hatchery. Hatchery staff and the Friends of Pendills Creek welcomed visitors who were treated to tours, food, and drink along with a glimpse of fish culture.

Objective - Provide support to States, Tribes, and other partners to identify and meet shared or complementary recreational fishing and aquatic education and outreach objectives.
Objective – Recognize and promote the value and importance of recreational fishery objectives in implementation of other Service responsibilities.

Our Commitment

– **All Field Stations will:**

- Host station tours and participate in/or organize other public education events for local schools, environmental groups and interested organizations (IL, MI, MO, IA, WI).

"…Alpena NFWCO coordinated or participated in 21 public education events for local schools, environmental groups, interested organizations, and other interested parties, including Congressional and Washington Office staff…"

"…Ashland NFWCO participated in an annual Career Day event sponsored by Northland College; continued support of the Lake Superior Pathfinders Leadership School as well as the Connecting the Coast project; participated in the review and scoring of Washburn high school scholarships; provided 200 frozen ruffe specimens in a cooperative research project currently in progress with Northland College; provided training for students at a lake sturgeon registration station during the Lake Winnebago spear-harvest season…"

"…Carterville NFWCO provides educational materials and opportunities to station visitors; participates in an annual event for Earth Day, Boy Scout merit badge events, and National Fishing Day; participated in Southern Illinois Hunting and Fishing Days - this is the largest outdoors-related event in Southern Illinois and allowed our office to provide educational materials and opportunities to hundreds of people…"

"… Columbia NFWCO instructed courses in lake- and stream-fishing, stream ecology, rappelling, and hunting at Wonders of the Outdoor World schools in Missouri; delivered 34 education and outreach programs to the public…"

"…Genoa NFH hosted 21 onsite outreach events and 17 offsite outreach events that reached an estimated 19,977 people; celebrated our 75th year of operation with a river celebration with over 600 people from across the country attending the event…"

"…Green Bay NFWCO held aquatic education days with local school groups; Congressman Kagen held a press conference at our office to announce the letting of a Federal conservation grant in our area…"

"…Iron River NFH participated in 16 separate events including two parades, one open house, kids fishing day,

Public Use

Trout Unlimited Expo, one - *Friends of the Iron River National Fish Hatchery* event, two *M/V Spencer F. Baird* dedication events, the Bayfield County, Wisconsin, Fair, six formal tours and conducted an in-the-classroom session at the Ashland, Wisconsin, middle school…"

"…Jordan River NFH organized 40 tours, specialized programs and public education events for schools, environmental and natural resource groups and other interest groups at the hatchery - some of the highlights were: South Maple Elementary School Spring Field Trip attended by 125 kindergarteners and associated parents and teachers with assistance from *Friends of the Jordan River NFH*; fish anatomy presentations for Boyne City and Mancelona High Students with nearly 100 students attending on four different dates; Au Sable Institute Students Tours - about 50 students on three different dates toured the hatchery facility and learned about lake trout rehabilitation, sea lamprey and careers with the Fish and Wildlife Service in natural resources conservation protection and management; Michigan Autumn Series hosted by the Friends group in coordination with staff - the evening was geared toward adults and non-traditional audiences - presentations were on Geology of Michigan, Forestry in Michigan and Meteorology in the Great Lakes Region…"

"…La Crosse NFWCO conducted environmental education activities and provided displays for various events including Earth Day and River Fest in La Crosse and Trempealeau, Wisconsin…"

"…Neosho NFH hosted station tours and participated in/or organized public education events for local schools, environmental groups and interested organizations; received over 45,000 visitors; had over 1,400 volunteer hours…"

"…Pendills Creek/Sullivan Creek NFH Complex co-hosted National Fishing Day events and organized additional aquatic education and fishing clinics in partnership with Seney NWR and the Soo Area Sportsmen's Club; hosted two hatchery open house events with our Friends Group…"

"…Ludington Biological Station conducted 33 public education outreach events that included: The Wisconsin Maritime Museum, Inland Seas Education Association, Ludington State Park, Mears State Park, Oden Fisheries Visitor Center, Sleeping Bear Dunes National Lakeshore – National Park Service, Platte River Campground, Ludington area schools, Michigan State University, Outdoor Boat and RV show in Grand Rapids, MI and several sportsman's clubs; Marquette Biological Station reached out to about 3,500 community members through more than 20 events including presentations to Cherry Creek Elementary School, Ishpeming Kiwanis, Richmond Township Fishing Day, Upward Bound, MSU Extension's Lake Superior Aquatic Invasives and Biodiversity Program for Public Schools, Moosewood Nature Center, KI Sawyer Elementary School, Gilbert Elementary School, James Fitzpatrick Alternative High School, Sandy Knoll Elementary School, High School Career Day, Clear Lake Education Camp, Father Marquette Elementary School, Portage Lake Library, and the Bay Cliff 5th Grade Science Camp; organized and participated in large scale outreach events at fairs, sport, RV, boat and recreation shows in Toronto, Canada, Cleveland, Ohio, Grand Rapids, Michigan, and Marquette, Michigan; participated in Michigan UP State Fair (Escanaba), Mall of America Fish Expo (Minneapolis, Minnesota) and Fish and Wildlife Service Lower Lakes Fishery Office's Fish and Wildlife Festival (Amherst, New York); participated in 20 radio, newspaper and TV interviews; sent out over 1,000 news releases to print and broadcast media and environmental health departments (MBS-660 and LBS-439); participated in in-reach events for Federal Building employees in the Regional Office and for Fish and Wildlife Service Budget and Finance personnel during meetings at Minnesota Valley NWR…"

Public Use

-GLFC

Volunteer Barry Matthews explains about the sea lamprey invasion in the Great Lakes. The presentation was given aboard the educational schooner *Inland Seas*.

-USFWS

Winona (Wisconsin) Middle School girls eagerly participate in a fish disection.

-USFWS

Genoa National Fish Hatchery personnel stock rainbow trout at Fort McCoy as part of a reimbursable agreement.

– **Alpena National Fish and Wildlife Conservation Office will:**
  - Participate in the Great Lakes Lighthouse Festival and other public events to provide information on aquatic recreation opportunities and restoration activities of the Service (MI).

    "…participated in 2007 Lighthouse Festival by staffing a display; met with or hosted a number of news media to conduct public outreach in 2007 including public radio, public television, local television news, newspapers, and through assistance in filming an IMAX documentary in the St. Clair River…"

– **Ashland National Fish and Wildlife Conservation Office will:**
  - Work with the Northern Great Lakes Visitor Center partners to enhance educational displays and conduct public education events (WI).

    "…participated in Kids Fishing Day at the Northern Great Lakes Visitor Center …"

– **Carterville National Fish and Wildlife Conservation Office will:**
  - Participate in a National Fishing Day event in partnership with the Crab Orchard NWR (IL).

    "…assisted in the "Kid's Fishing Derby" at Crab Orchard NWR (>300 kids) - provided a "Toddler Tank" that is stocked with real fish for the very young children to watch while "fishing" for magnetic fish; helping to plan habitat improvements in what will eventually become the Kid's Fishing Area at Crab Orchard Lake…"

– **Columbia National Fish and Wildlife Conservation Office will:**
  - Assist in teaching Wonders of the Outdoor World recreational fishing education courses (MO).

    "…instructed courses in lake- and stream-fishing, stream ecology, rappelling, and hunting at Wonders of the Outdoor World schools in Missouri…"
  - Participate in state-wide aquatic stewardship education and outreach events (MO, KS).

    "…delivered 34 education and outreach programs to the public…"

– **Green Bay National Fish and Wildlife Conservation Office will:**
  - Work with the Oneida Tribe of Indians of Wisconsin and Wisconsin DNR to organize and hold an annual youth and elders fishing day (WI).

    "…organized Kids Fishing Day for the Oneida Tribe…"

– **La Crosse National Fish and Wildlife Conservation Office will:**
  - Conduct environmental education activities and provide displays for various events, such as Earth Day and River Fest in La Crosse, Trempleau, and Lynxville, Wisconsin (WI).

    "…conducted environmental education and provided displays for various events including Earth Day and River Fest in La Crosse and Trempealeau, Wisconsin…"

Public Use

– **Ludington and Marquette Biological Stations will:**
  - Participate in the Great Lakes Lighthouse Festival and other public events to provide information on aquatic recreation opportunities and restoration activities of the Service (MI).

    "…Ludington Biological Station conducted 33 public education outreach events that included: The Wisconsin Maritime Museum, Inland Seas Education Association, Ludington State Park, Mears State Park, Oden Fisheries Visitor Center, Sleeping Bear Dunes National Lakeshore – National Park Service, Platte River Campground, Ludington area schools, Michigan State University, Outdoor Boat and RV show in Grand Rapids, MI and several sportsman's clubs; Marquette Biological Station reached out to about 3,500 community members through more than 20 events including presentations to Cherry Creek Elementary School, Ishpeming Kiwanis, Richmond Township Fishing Day, Upward Bound, MSU Extension's Lake Superior Aquatic Invasives and Biodiversity Program for Public Schools, Moosewood Nature Center, KI Sawyer Elementary School, Gilbert Elementary School, James Fitzpatrick Alternative High School, Sandy Knoll Elementary School, High School Career Day, Clear Lake Education Camp, Father Marquette Elementary School, Portage Lake Library, and the Bay Cliff 5th Grade Science Camp…"

– **Genoa National Fish Hatchery will:**
  - Collect and/or propagate northern pike (300,000 fry) and walleye (12-20 million eggs; 1-2 million fry; 100,000 two-inch fingerlings; 15,000 six-inch advanced fingerlings) for other state and tribal resource agencies' management efforts (AZ, IL, OK, TX, and WI).

    "…due to viral hemorrhagic septicemia virus concerns, all northern pike fry were returned to the river this year - over 997,400 fry were released back into the water of origin of these fish; over 2.225 million sauger eggs were shipped to two state conservation agencies; 2,194 advanced fingerling walleye were made available to state and tribal organizations - this number is due to a scheduling anomaly at the Rydell NWR, our advanced grow-out pond, and will be corrected in next fiscal year's report…"
  - Culture 25,000 (2 inch) walleye for recreational fishing objectives on Legend Lake, Wisconsin (WI).

    "…due to the Wisconsin Emergency viral hemorrhagic septicemia virus order and subsequent halt to all state stockings, the hatchery in consultation with the tribe respected the state's moratorium on stocking for this year, and did not supply walleye for this stocking request in FY2007 - spring walleye fingerling production was diverted to the state of Iowa for their management programs…"
  - Collect sauger eggs for the State of Nebraska's recreational fishing objectives (NE).

    "…had one of its best sauger egg takes in recent history, with 1.3 million eggs supplied to Tennessee Fish and Game's Normandy State Fish Hatchery for their sport fish management programs; another 2.0 million fry were returned to the Upper Mississippi River NW&FR; Nebraska cancelled their request this year due to the emergence of viral hemorrhagic septicemia virus in the Great Lakes States…"
  - Provide fish in excess of NWR fish needs to the State of Iowa to assist in meeting fish community objectives stated in current fish management plans (IA).

    "…provided over 1.3 million fish of 7 different species and 1 mussel species totaling over 1,900 pounds to assist Iowa in meeting fish community objectives stated in current fish management plans…"

– **Iron River National Fish Hatchery will:**
  - Work with the Northern Great Lakes Visitor Center (U.S. Forest Service) to enhance educational displays and conduct public education and fishing events (WI).

    "…secured a grant from the Federation of Fly Fishers to develop coaster brook trout educational material for display at the Visitor Center…"

Public Use

- Work with State partners providing surplus trout when requested and where appropriate for stocking into public waters to enhance recreational fishing (WI, MN, MI).
  "…worked with the Ashland NFWCO and the Wisconsin and Michigan DNR's to stock retired brood stock in several inland lakes…"
- Work with the Friends of Iron River Hatchery to help sponsor public education in conservation in the Iron River, Wisconsin, area (WI).
  "…hosted one Friends group event and held regular meetings…"

-USFWS

Rainbow trout in a raceway at Neosho NFH are crowded together in preparation for distribution to Lake Taneycomo, a popular fishing location.

– **Jordan River National Fish Hatchery will:**
- Participate in the Great Lakes Lighthouse Festival, Mancelona Bass Festival, Traverse City Math and Science Workshop, the Northland Hunting and Fishing Expo and other public events to provide information on aquatic recreation opportunities and restoration activities of the Service (MI).
  "…participated in the Mancelona Bass Festival Parade and the Family Fun Night; presented Fish Anatomy and Fish Stocking Operations and Careers at the Traverse City Math and Science Workshop; staffed a booth serving nearly 880 adults and children while promoting Fish and Wildlife Service programs and initiatives at the Northland Sportsman's Club Family Hunting and Fishing Expo; presented on scientific writing at the Young Authors Expo in Bellaire, Michigan…"
- Work with the Friends of Jordan River Hatchery to help sponsor public education in conservation in the Gaylord, Michigan, area (MI).
  "…The Hatchery Friends group gained non-profit status in April 2007 and assisted with the Adopt a Highway Clean Up on US 131 along with Concord Academy Charter School volunteers and the East Jordan Snowmobile Club, the evening 'Fish are Fun' programs either by attending or providing labor or providing snacks or funding; participated with the Friends group in two separate Earth Day events and the Michigan Autumn Speaker Series; the highlight was the team project building a public interpretive pavilion at the hatchery - it was nearly completed by the first week of October 2007 and will be added onto and finished up in Spring 2008…"

-USFWS

The crew at the Neosho NFH load rainbow trout onto a Missouri Department of Conservation distribution truck for mitigation stocking into Lake Taneycomo.

– **Neosho National Fish Hatchery will:**
- Host an Annual Open House to educate the public about the hatchery, the Service and the natural resources of Missouri (MO).
  "…hosted the Annual Open House to educate the public about the Hatchery, the Fish and Wildlife Service, and the natural resources of Missouri…"

Public Use

– **Pendills Creek and Sullivan Creek National Fish Hatcheries will:**
  - Participate in the SOO Area Home Show, SOO Locks Festival, Snowmobile Hatchery Open House and Summer Hatchery Open House Events, Brimley Fourth Of July Parade and other public events to provide information on aquatic recreation opportunities and restoration activities of the Service (MI).

    "…unable to participate in the Soo Area Home Show and the Soo Locks Festival due to lack of staff and budget but hosted two open house events at Pendills Creek NFH…"
  - Continue to work with the Friends of Pendills Creek Hatchery to help sponsor public education in conservation in the Brimley, Michigan, area (MI).

    "…worked as much as possible with staff and budget shortages…"

Mitigation Fisheries

Mitigation Fisheries Goal: The Federal government meets its responsibilities to mitigate for the impacts of federal water projects, including restoring habitat and/or providing fish and associated technical support to compensate for lost fishing opportunities.

Our primary focus is on meeting our mitigation responsibilities associated with Lake Taneycomo (Table Rock Dam), Missouri.

Objective – Identify the mitigation responsibilities of Federal agencies related to water projects.
Objective - Meet the Service's responsibilities for mitigating fisheries.
Objective – Achieve full cost recovery from water project sponsors.

Our Commitment

– **Neosho National Fish Hatchery will:**
  - Culture 225,000 rainbow trout (nine to ten inches) to meet the Federal mitigation responsibilities for the Federally funded water project at Lake Taneycomo (MO).

    "…cultured 227,538 (94,849 pounds) rainbow trout (nine to ten inches) to meet the Federal mitigation responsibilities for the Federally funded water project at Lake Taneycomo…"
  - Meet the mitigation production target (MO). (**FY07 Department of the Interior Performance Measure**).

    "…met the mitigation production target…"

– **La Crosse Fish Health Center will:**
  - Provide annual fish health services to the mitigation program at Neosho NFH (MO)

    "…provided an annual fish health service to the mitigation program at Neosho NFH…"

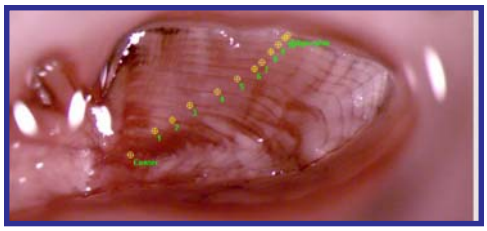
-USFWS photo by George Gentry

-USFWS

Historic photo of the Neosho NFH. Neosho NFH was built in 1888 but was renovated in 1961 to produce rainbow trout.

Neosho NFH, one of the oldest hatcheries still operating, was retrofitted in 1961 to raise rainbow trout to help compensate for the impacts of Federal dams built on the White River in Missouri. Today, Lake Taneycomo is one of the most popular trout fishing locations in the state.

Cooperation with Native Americans



-*USFWS photo by Scott Koproski*
An otolith from a lake whitefish shows annual growth rings.

-*USFWS*
A lake sturgeon captured from the Ontonagon River, Michigan, receives a tag as part of a population survey.

Goal/Actual Accomplishment for FY 2007

Performance Measures (Fisheries Strategic Plan v.11)

Cooperation with Native Americans

	Regional Fisheries Goal	Alpena NFWCO Goal	Ashland NFWCO Goal	Carter-ville NFWCO Goal	Columbia NFWCO Goal	Genoa NFH Goal	Green Bay NFWCO Goal	Iron River NFH Goal	Jordan River NFH Goal	La Crosse FHC Goal	La Crosse NFWCO Goal	Neosho NFH Goal	Pendills Creek NFH Goal	Sea Lamprey Control Goal
Number of technical assistance requests fulfilled for Tribal fish and wildlife conservation by FWMA	49/49	0	26	0	0	NA	20	NA	NA	NA	3	NA	NA	NA
Number of training sessions for Tribal by Fisheries	2/3	0	0	0	0	0	3	0	0	0	0	0	0	0
Number of new or modified cooperative agreements or Intergovernmental Personnel Act Agreements FWMA	0/0	0	0	0	0	NA	0	NA	NA	NA	0	NA	NA	NA
Number of Tribal consultations by FWMA	1/1	0	0	0	0	NA	1	NA	NA	NA	0	NA	NA	NA
Number of planned accomplishments/reintroductions objectives (tasks) implemented for Tribes by Fisheries (GPRA)	33/46	7	0	0	0	15	8	8	0	2	1	0	5	0

Cooperation with Native Americans

Native American Goal: Assistance is provided to Tribes that results in the management, protection, and conservation of their treaty-reserved or statutorily defined trust natural resources, which helps Tribes develop their own capabilities.

Our primary focus is on respecting and promoting Tribal self-government, self-determination, and sovereignty of Federally recognized Tribes relating to fish and wildlife resource, as defined by the Service's Native American Policy.

Objective - Provide technical assistance to Tribes.
Objective – Identify sources of funds to enhance Tribal resource management.
Objective – Recognize and promote the Service's distinct obligations toward Tribes within the Fisheries Program.

Our Commitment

– **Regional Office will:**

- Work with partners through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund native fish and aquatic habitat restoration activities led by tribal governments (MI, MN, NY, WI).

  "…the following Restoration Act funded projects were in progress or completed during FY 2007: Boggy bottoms wetland restoration - Ducks Unlimited; Lake St. Clair coastal wetland enhancement - Ducks Unlimited; and Lake Erie water snake recovery plan implementation: Demographic responses to invasive round gobies - Northern Illinois University…"

- Support enhancement of tribal natural resource department capabilities and conservation programs through the Tribal Wildlife and Tribal Land Owner Incentive grant programs (MI, MN, WI, IA).

  "…assigned the Ashland NFWCO to assist with the national scoring of the Tribal Wildlife and Tribal Landowner Incentive Program Grants…"

- Develop policy, briefings and positions to address 1836 Treaty fishery issues raised by the tribal parties to the Executive Council or through the dispute resolution process of the Consent Decree (MI).

  "…worked with the Green Bay NFWCO, who is the lead on the Consent Decree…"

– **Alpena National Fish and Wildlife Conservation Office will:**

- Provide technical assistance to tribes in Michigan according to Federal trust responsibilities, reserved rights, tribal management authority and Regional tribal liaison assignments (MI).

  "…worked jointly with Chippewa Ottawa Resource Authority (CORA) tribal biologists on issues before Technical Fisheries Committee (TFC) and Modeling Subcommittee (MSC), and participated in meeting of each group…"

- Provide technical assistance to Chippewa Ottawa Resource Authority for walleye recruitment surveys in the St. Marys River (MI).

  "…conducted electrofishing surveys at 14 locations (Lake George, Sugar Island side channel, Waiska Bay, and Lake Nicolet) within the St. Marys River to index the contribution of hatchery produced walleye to the walleye populations…"

- Participate with the Technical Fisheries Committee (TFC), Modeling Subcommittee (MSC) and Executive Council, under the August 7, 2000, U.S. District Court Consent Decree, generating annual harvest limits for tribal fisheries in 1836 Treaty waters (MI).

  "…served as chair of TFC , co-chair of MSC and led Fish and Wildlife Service efforts for modeling efforts in Northern Lake Huron 1836 Treaty waters; led Fish and Wildlife Service efforts for

Cooperation with Native Americans

-Great Lakes Lake Sturgeon Website

Biologists from the Ashland National Fish and Wildlife Conservation Office met with the tribal biologist from the Fond du Lac Indian Reservation in Wisconsin to discuss lake sturgeon restoration efforts for the Upper St. Louis River in Minnesota, a tributary to Lake Superior.

-USFWS

Ashland National Fish and Wildlife Conservation Office and the Red Cliff Tribe Natural Resources Department conducted electrofishing assessments along the Bayfield Peninsula, Lake Superior, to evaluate the tribe's brook trout stocking program.

briefing of the Deputy Regional Director and Field Solicitor for involvement in Executive Council issues relating to Lake Huron fisheries…"

- Process coded-wire tags from lake trout captured in tribal commercial, subsistence, and assessment to recover data beneficial to lake trout rehabilitation in 1836 Treaty waters of Lake Huron (MI).

"…extracted and read 167 coded-wire tags from lake trout heads collected by CORA biologists and returned the data to them…"

– **Ashland National Fish and Wildlife Conservation Office will:**

- Provide technical assistance to tribes in Minnesota, Wisconsin and Michigan according to Federal trust responsibilities, reserved rights, tribal management authority and Regional tribal liaison assignments (MI, MN, WI).

"…undertook a collaborative survey effort to protect and rehabilitate sturgeon populations in Keweenaw Bay; mailed announcements to all our tribal contacts alerting them to the opening of the 2007 Tribal Wildlife Grant Programs - reviewed and commented on several draft Tribal Wildlife Grant proposals for 2007; assisted with the national scoring of the Tribal Wildlife and Tribal Landowner Incentive Program Grants; participated in an annual meeting of the Joint Fishery Assessment Steering Committee held at the Lac Courte Oreilles Indian Reservation; continued capture and equipment assistance for a lake sturgeon telemetry study on the Grand Portage Reservation; publishing a quarterly newsletter - Midwest Tribal Aquaculture Network (MTAN); continued work with the Red Lake Band of Chippewa, Minnesota DNR, Bureau of Indian Affairs, and the University of Minnesota, to restore a naturally spawning population of walleye in Red Lake; assisted the Great Lakes Indian Fish and Wildlife Commission with spring and fall walleye population surveys; coordinated the transfer of 200 catchable size rainbow trout to the Keweenaw Bay Indian Reservation for three different fishing day activities…"

- Provide technical assistance to the Red Lake Band in monitoring the status of forage and walleye populations in Red Lake (MN).

"…continued to work with the Red Lake Band of Chippewa, Minnesota DNR, Bureau of Indian Affairs, and the University of Minnesota, to restore a naturally spawning population of walleye in Red Lake and to complete forage base survey…"

- Provide technical assistance to the parties to the 1836 Treaty Waters Consent Decree by aging lake trout captured in assessment fisheries (MI).

"…aged lake trout scales collected from anglers at various creel check points on Lake Superior; summarized data on

Cooperation with Native Americans

lake trout collected during aquatic invasive species surveys for the Lake Superior State of the Lake report…"

- Provide technical assistance to the Keweenaw Bay Indian Community to collect and transfer largemouth bass for a kids fishing day (MI).

  "…due to the concern of possibly transferring fish with viral hemorrhagic septicemia virus, this project was cancelled…"

- Provide technical assistance to the Bad River Band in assessing lake sturgeon in the Bad River (WI).

  "…set gill nets for a lake sturgeon survey on the White River with assistance from the Bad River Tribal Natural Resources Department members and area volunteers…"

- Coordinate and publish the Midwest Tribal Aquaculture Network newsletter (MI, MN, WI).

  "…published a quarterly newsletter - Midwest Tribal Aquaculture Network…"

- Assist the Region 3 Native American Program Coordinator in administering the Tribal Wildlife Grants Program and the Tribal Landowner Incentive Grants Program (MN, MI, WI).

  "…assisted with scoring the 2007 Tribal Wildlife and Tribal Landowner Incentive Program Grants…"

- Coordinate Region 3 Partners for Fish and Wildlife program activities with the Bureau of Indian Affairs Circle of Flight program.

  "…attended the Circle of Flight (CoF) meetings and coordinated projects with the three individual state Partners for Fish and Wildlife Program offices - additional CoF and Partners for Fish & Wildlife completed projects include: The Hopkins Partners for Fish and Wildlife Program, Graveyard Creek Channel Restoration, Muskeg Creek, Ox Creek Brook Trout Habitat Restoration, Marengo River Brook Trout Habitat Protection, Brilla Wildlife Habitat / Fish Creek Watershed Restorations, Kindt property, Kleinsteiber wetland restoration, Little Whittlesey Creek, Whitetail Waters and the Cunningham wetland restoration project…"

– **Green Bay National Fish and Wildlife Conservation Office will:**

- Provide technical assistance to tribes in Wisconsin and Michigan (in the Lake Michigan watershed) according to Federal trust responsibilities, reserved rights, tribal management authority and Regional tribal liaison assignments (MI, WI).

  "…provided technical assistance to Oneida, Potowatomi, Mole Lake, Bay Mills Indian Community, Sault Ste Marie tribe, Little Traverse Bay Band, Grand Traverse Band, and Little River Band of Indians…"

- Participate with the Technical Fisheries Committee (TFC), Modeling Subcommittee (MSC), and Executive Council, under the August 7, 2000, U.S. District Court Consent Decree, generating annual harvest limits for tribal fisheries in 1836 Treaty waters (MI).

  "…participated in TFC and MSC activities and assignments; serves as co-chair of the MSC; provided assistance and guidance to Federal team for participation in deliberations of the Executive Council…"

- Process coded-wire tags from lake trout captured in tribal commercial, subsistence, and assessment to recover data beneficial to lake trout rehabilitation in 1836 Treaty waters of Lake Michigan (MI).

  …processed coded-wire tags from lake trout captured in tribal commercial, subsistence and assessment to recover data beneficial to lake trout rehabilitation in 1836 Treaty waters of Lake Michigan…"

- Provide technical assistance to the Oneida Tribe of Indians of Wisconsin in assessing the fisheries of Quarry Lake and implementing habitat restoration in Trout Creek (WI).

  "…provided technical assistance to the Oneida Tribe of Indians of Wisconsin in assessing the fisheries of Quarry Lake and implementing habitat restoration in Trout Creek…"

Cooperation with Native Americans

-USFWS/DaleHanson

Green Bay National Fish and Wildlife Conservation Office biologist Ted Eggebracten retrieves a gill net set in Lake Michigan to sample lake whitefish and lake trout.

-USFWS

Biologists from the White Earth Department of Natural Resources and La Crosse National Fish and Wildlife Conservation Office carefully remove a young lake sturgeon from a net , evidence of a successfull stocking project on White Earth Lake.

-USFWS

A Menominee tribal biologist and a student from the tribal college proundly display some young lake sturgeon collected in a fishery survey of Legend Lake on the Menominee Reservation.

– **La Crosse National Fish and Wildlife Conservation Office will:**
  - Provide technical assistance to tribes in Wisconsin and Minnesota according to Federal trust responsibilities, reserved rights, tribal management authority and Regional tribal liaison assignments (MN, WI).
    "…provided technical assistance to the White Earth Band of Chippewa, Menominee Indian Tribe of Wisconsin, and Sac and Fox Tribe of the Mississippi in Iowa…"
  - Continue efforts to restore lake sturgeon to the White Earth and Menominee Indian Reservations and evaluate stocking success (MN, WI).
    "…stocked fingerling lake sturgeon (raised at the Genoa NFH) into White Earth and Menominee reservations, and an annual stocking assessment was conducted on Legend lake on the Menominee Reservation…"
  - Harvest walleye at Rydell NWR for stocking on the White Earth Indian Reservation if there are excess fish (MN).
    "…harvested walleye at Rydell NWR for stocking on the White Earth Indian Reservation - this year over 20,0000 fingerling walleye were transported to Red Lake and White Earth reservations…"

– **Ludington and Marquette Biological Stations will:**
  - Work cooperatively with the Great Lakes Indian Fish and Wildlife Commission, Chippewa Ottawa Resource Authority, Bad River Band, Red Cliff Band, Grand Traverse Bay Band and Little Traverse Bay Band to implement sea lamprey control activities (MI, WI).
    "…worked cooperatively to implement sea lamprey control activities in the Great Lakes with the GLIFWC, CORA, Bad River Band of Lake Superior Chippewa Indians, Red Cliff Band of Lake Superior Chippewa Indians, Keweenaw Bay Indian Community, Grand Traverse Bay Band of Ottawa and Chippewa Indians, Little Traverse Bay Bands of Odawa Indians, Little River Band of Ottawa Indians, and the Seneca Nation of Indians; worked with Natural Resources Department staff of the Bad River Band to prepare a draft integrated pest management plan for suppressing sea lampreys in the Bad River…"

– **Iron River National Fish Hatchery will:**
  - Work cooperatively with the Red Cliff Band to provide technical support for brook trout propagation programs and rehabilitation plans in Lake Superior (WI).
    "…worked cooperatively with the Ashland NFWCO to provide any requested information needed to update these rehabilitation/restoration plans…"

Cooperation with Native Americans

-USFWS

The Red Cliff Natural Resources Department staff are encouraged with their coaster brook trout stocking program, where assessments indicate than many mature fish are present in the population.

- Work cooperatively with the Keweenaw Bay Indian Community to provide technical support for the Jumbo River brook trout rehabilitation program (MI).

  "…worked cooperatively with the Keweenaw Bay Indian Community to provide technical support for the Jumbo River brook trout rehabilitation program…"

- Consult regularly with tribal partners to support management objectives for restoration of lake trout and coaster brook trout (WI, MN).

  "…consulted regularly with tribal partners to support management objectives for restoration of lake trout and coaster brook trout…"

Jordan River National Fish Hatchery will:

- Provide technical assistance to the Little Traverse Bay Band in the development of a lake trout propagation program (MI).

  "…Little Traverse Bay Band has not undertaken a lake trout culture program - we keep in contact with their biologist and assessment unit staff; interact with Tribal staff at the Lake Michigan Technical Committee meetings and Lake Trout Work Group; coordinate with Tribe when distributing lake trout yearlings in the Grand Traverse Bay area…"

- Provide technical assistance to the Chippewa Ottawa Resource Authority Nunn's Creek Fish Hatchery in enhancing propagation programs (MI).

  "…opportunity to be involved in CORA propagation programs at Nunn's Creek did not present itself - communicated with their staff and worked with them through the Lake Michigan Technical Committee and Lake Trout Work Group; pursued CORA staff as a speaker for our Autumn Series outreach event but they were unable to commit…"

-USFWS

La Crosse Fish Health Center biologist Kenneth Phillips performs a fish health inspection at the Red Cliff Tribal Fish Hatchery.

– **Pendills Creek National Fish Hatchery will:**

- Work with the Bay Mills Indian Community, Sault Ste. Marie Band and the Chippewa Ottawa Resource Authority to provide technical assistance in fish propagation and develop cooperative natural resource programs (MI).

  "…provided technical assistance and cooperative natural resource programs by initiating talks in regard to initiating a coaster brook trout stocking program in the Whitefish Bay area; provided lake trout eggs for research conducted by CORA…"

– **La Crosse Fish Health Center will:**

- Provide technical assistance by hosting workshops, conferences, training opportunities, and fish health services for Tribal governments (MI, MN, WI).

  "…offered the Introduction to *Fish Health Management* course to the Tribal governments…"

Cooperation with Native Americans

Objective - Provide fish for Tribal resource management.

Our Commitment

– **Genoa National Fish Hatchery will:**

- Culture 600 lake sturgeon yearlings on alternate years for stocking under an interagency restoration program for the Menominee Indian Reservation (WI).
  "…cultured and stocked 400 (14 inch) lake sturgeon for the Menominee tribe…"
- Culture 13,000 Rainy River strain lake sturgeon for stocking under interagency restoration plans for White Earth Indian Reservation and the Red River of the North (MN).
  "…cultured 10,000 Rainy River strain lake sturgeon for the White Earth Reservation and 3,000 Rainy River lake sturgeon for Minnesota DNR - stocking took place after the fiscal year and will be reported in FY2008…"
- Culture 600 brook trout (10 inches) for stocking under interagency restoration programs at the Red Lake Indian Reservation (MN).
  "…cultured and stocked 1,320 (9 inch) brook trout for Red Lake…"
- Culture six-inch walleye fingerlings for stocking under interagency restoration programs at the Menominee, Stockbridge Munsee, Red Lake and White Earth Indian Reservations (MN, WI).
  "…due to a scheduling anomaly, the Rydell advanced fingerling production will be reported next fiscal year as distribution was completed after the fiscal year ended…"
- Culture bluegills, brook trout, largemouth bass, rainbow trout, and walleye, as requested, for recreational fishing on Tribal lands (MI, MN, WI).
  "…cultured and stocked 7,370 brook trout, rainbow trout and walleye to support recreational fishing objectives on tribal lands…"
- Culture 2000 (8 inch) brook trout yearlings for First County Potawanomi Tribe (WI).
  "…cultured and stocked 2,488 rainbow trout (averaging 9 inches) for the Tribe…"

– **Iron River National Fish Hatchery will:**

- Work with Tribal partners providing surplus trout when requested and where appropriate for stocking to enhance recreational fishing opportunities (WI, MN, MI).
  "…worked with the Ashland NFWCO and the Grand Portage Indian Community and Keweenaw Bay Indian Community to stock retired brood stock into inland lakes…

-USFWS

A Tribal biologist gets the opportunity to stock fish that were provided by the Genoa National Fish Hatchery.

-USFWS

A Grand Portage tribal biologist stocks coaster brook trout on the shore of Lake Superior. The fish were reared at the Iron River National Fish Hatchery.

Cooperation with Native Americans

-USFWS

The Iron River National Fish Hatchery staff receives plenty of help stocking retired lake trout brood stock into a Red Lake Band of Chippew Indians lake.

-USFWS

Incubation trays are prepared for shipping lake trout fry from the Iron River National Fish Hatchery to the Keweenaw Bay Indian Community Tribal Fish Hatchery.

- Enhance programs and facilities to produce additional lake trout above current goal of 1.2 million yearlings to help meet requirements of the August 7, 2000, Consent Decree (MI, WI).

"…provided 140,000 lake trout fry to the Keweenaw Bay Indian Community hatchery for resource management goals; shifted 90,000 yearling lake trout, formerly destined for Lake Superior, to Lake Michigan Consent Decree waters; by maximizing use of rearing space and water, we produced an additional 384,279 fall fingerlings for Consent Decree waters; continue to utilize liquid oxygen to gain a 20% increase in yearling production…"

– **Jordan River National Fish Hatchery will:**

- Enhance programs and facilities to produce additional lake trout above the current goal of 1.8 million yearlings to help meet requirements of the August 7, 2000, Consent Decree (MI).

"…reviewed and evaluated Standard Operation Procedures and fish culture techniques; began drafting a Comprehensive Hatchery Management Plan to be used as a template for Region 3 lake trout hatcheries…"

– **Pendills Creek National Fish Hatchery will:**

- Enhance programs and existing facilities to produce additional lake trout above the current goal of 900,000 yearlings and 100,000 fingerlings to help meet the requirements of the August 7, 2000, Consent Decree (MI).

"…refined the Hatchery lake trout program and increased production numbers of both fall fingerlings and yearlings based upon hatchery enhancements with the goal to produce the best possible lake trout product…"

– **La Crosse Fish Health Center will:**

- Conduct fish health assessments as part of interagency lake sturgeon restoration efforts on the Menominee Indian Reservation and the White Earth Indian Reservation (MN, WI).

"…provided diagnostics/inspections for the Menominee Indian Reservation, White Earth Indian Reservation, and also the Rainey River First Nation (Canada) and CORA…"

Coordination with Tribal Governments

The area of the United States encompassed by the Midwest Region of the U. S. Fish and Wildlife Service is home to 36 federally recognized tribes, bands, and communities, and 3 intertribal organizations. The fish, wildlife and natural resource interests of Native Americans in our Region cover large areas included under the Treaties of 1836, 1837, 1842 and 1854. These lands and waters contain a great diversity of plant and animal life managed under authorities of tribal governments and states.

The Federal Government, Department of Interior, and Fish and Wildlife Service, have trust responsibilities to assist Native Americans in protecting, conserving and utilizing their reserved, treaty guaranteed, or statutorily identified trust assets. The Service adopted a Native American Policy in 1994 with the express purpose to articulate the general principles that will guide the service's government-to-government relationship to Native American governments in the conservation of fish and wildlife resources.

For the Service's Region 3 Fisheries Program, the most important aspects of fulfilling trust responsibilities to tribes are to provide consultation, technical assistance, cooperative partnerships and training opportunities to Native American fish and wildlife professionals, consistent with the principles of tribal self-determination and self-governance.

Effective and efficient coordination with tribal natural resource programs is therefore one of our most important goals. We will hold regular coordination meetings with tribes and continue the more frequent communication that occurs between tribes, our National Fish and Wildlife Conservation Offices, and National Fish Hatcheries, in planning and implementing conservation activities.

In order to establish the most direct and efficient lines of communication between tribes and the Service's Fishery Program in this Region, we have assigned each of our Fishery Resources Offices the lead responsibility for supporting the needs of several recognized Native American groups in the Great Lakes – Big Rivers Region, as outlined here.

-USFWS photo by Aaron Woldt

Staff from the Alpena National Fish and Wildlife Conservation Office set a gill net as part of the fishery independent lake whitefish survey in Northern Lake Huron.

The Alpena NFWCO is responsible for working with:

Chippewa Ottawa Resource Authority

Bay Mills Indian Community
Sault Ste. Marie Tribe of Chippewa Indians
Saginaw Chippewa Indian Tribe of Michigan
Match-E-Be-Nash-She-Wish Band of Potawatomi Indians of Michigan
Pokagon Band of Potawatomi Indians
Nottawaseppi Huron Band of Potawatomi

Coordination with Tribal Governments

-USFWS

Frank Stone (left) and crew prepare their boat for a night of electrofishing for walleyes. Information gathered from these surveys will be used to set walleye harvest quotas in Northern Wisconsin. The Great Lakes Indian Fish and Wildlife Commission requested assistance from the La Crosse and Ashland National Fish and Wildlife Conservation Office's for the survey.

-USFWS

Walleye sampling in Northern Wisconsin is a critical component to estimate adult populations, determine recruitment, and establish harvest levels.

-Menominee Nation News

Ann Runstrom presents Fish and Wildlife Biologist Don Reiter , from the Menominee Indian Tribe of Wisconsin, with a special recognition for his efforts to restore lake sturgeon on the Menominee Reservation.

The Ashland NFWCO is responsible for working with:

Great Lakes Indian Fish and Wildlife Commission
1854 Authority

Bois Forte (Nett Lake) Lake Superior Band of Chippewa Indians
Fond du Lac (Lake Superior) Band of Chippewa Indians
Grand Portage (Lake Superior) Band of Chippewa Indians
Mille Lacs Band of Ojibwe
Red Lake Band of Chippewa Indians
Leech Lake Band of Ojibwe
Keweenaw Bay Indian Community
Lac Vieux Desert Band of Lake Superior Chippewa Indians
Bad River Band of Lake Superior Tribe of Chippewa Indians
Lac Courte Oreilles Band
Lac du Flambeau Band of Lake Superior Chippewa Indians
Red Cliff Band of Lake Superior Chippewa Indians
Sokaogon Chippewa (Mole Lake) Community of Wisconsin
St. Croix Chippewa Indians of Wisconsin

The Green Bay NFWCO is responsible for working with:

Oneida Tribe of Indians of Wisconsin
Mohican Nation Stockbridge-Munsee Band
Hannahville Indian Community
Forest County Potawatomi Community
Grand Traverse Bay Band of Ottawa and Chippewa Indians
Little Traverse Bay Bands of Odawa Indians
Little River Band of Ottawa Indians

The LaCrosse NFWCO is responsible for working with:

White Earth Band of Chippewa
Menominee Indian Tribe of Wisconsin
Shakopee Mdewakanton Sioux Community
Upper Sioux Community of Minnesota
Lower Sioux Indian Community in Minnesota
Prairie Island Indian Community
Sac and Fox Tribe of the Mississippi in Iowa
Stockbridge Munsee Community
Ho-Chunk Nation

Leadership in Science and Technology

-USFWS

A U.S. Geological Survey crew implants a transmitter into a sturgeon captured by the Columbia National Fish and Wildlife Conservation Office on the Lower Missouri River.

-USFWS

This juvenile lake sturgeon was sampled from the Peshtigo River, Wisconsin.

-USFWS photo by Bob Bergstrom

One of the most important tests for the new *M/V Spencer F. Baird* was to install and check the fish tanks on the new vessel.

Goal/Actual Accomplishment for FY 2007

Performance Measures (Fisheries Strategic Plan v 11)

Leadership in Science and Technology

	Regional Fisheries Goal	Alpena NFWCO Goal	Ashland NFWCO Goal	Carter-ville NFWCO Goal	Columbia NFWCO Goal	Genoa NFH Goal	Green Bay NFWCO Goal	Iron River NFH Goal	Jordan River NFH Goal	La Crosse FHC Goal	La Crosse NFWCO Goal	Neosho NFH Goal	Pendills Creek NFH Goal	Sea Lamprey Control Goal
Number of applied aquatic science and technological tasks implemented - Fisheries	48/48	0	0	1	12	9	6	2	2	4	5	2	5	0
Number of applied aquatic science and technologic tools developed and shared with partners through publications, web pages, technical bulletins, patents, meetings, and symposia - NFHS	48/48	2	7	1	4	8	26	0	0	0	0	0	0	0
Number of techniques and culture tools develop - Fisheries	5/13	0	0	0	0	8	5	0	0	0	0	0	0	0

Leadership in Science and Technology

Leadership in Science and Technology Goal: Science developed and used by Service employees for aquatic resource restoration and management is state-of-the-art, scientifically sound and legally defensible. Technological advances in fisheries science developed by Service employees are available to partners.

Our primary focus is on developing, applying, and disseminating state-of-the-art science and technology to conserve and manage aquatic resources.

Objective - Develop and share applied aquatic scientific and technologic tools with partners.

Our Commitment

– **Regional Office will:**

- Work with partners through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund state-of-the-art science to enhance conservation of Great Lakes fishery resources (IL, IN, MI, MN, NY, OH, PA, WI).

  "…the following Restoration Act funded projects were in progress or completed during FY 2007: Modeling historic and temporal variation of Great Lakes walleye maturation schedules - University of Michigan; Estimating spawning date, hatch date, and strain contribution for lake trout at Lake Michigan's Mid Lake Reef complex - University of Wisconsin- Milwaukee; Development of a GIS for Great Lakes aquatic habitat - University of Michigan; Lake sturgeon rehabilitation using stream-side rearing facilities - Wisconsin Department of Natural Resources; Developing and testing models of lake herring (*Coregonus artedi*) population dynamics in Lake Superior: Implications for restoration in the Lower Great Lakes - Michigan State University; Development of a GIS for Great Lakes aquatic habitat - University of Michigan; Identification of putative pheromones in lake trout - Michigan State University; Biophysical model of Lake Erie walleye recruitment - Michigan State University; Development of genetic management guidelines for lake sturgeon - University of California, Davis; and Huron-Erie corridor system habitat assessment - The Ohio State University…"

- Work with other Service programs to identify research priorities for U.S. Geological Survey under the Science Support Program (IL, IN, MI, MN, IA, OH, MO, WI).

  "…submitted 17 project proposals that requested nearly $1.1 million in Science Support (SSP) and Quick Response Program (QRP) funds - the Regional Science Team (Regional Fisheries, Ecological Services, Migratory Birds, and National Wildlife Refuge staffs) recommended that seven project proposals be funded in FY2008 - the Regional Management Team accepted the recommendations of the Regional Science Team - as the result of that decision, the SSP and QRP programs are supporting those seven new projects using the $210,000 available in SSP and $50,000 available in QRP funds…"

- Work with partners and stakeholders to establish an Aquatic Resource Technology Center, enhancing science capabilities in the Region (IL, IN, MI, MN, IA, OH, MO, WI) .

  "…have established an Aquatic Resource Technology Center and am in the process of staffing the Center…"

– **Alpena National Fish and Wildlife Conservation Office will:**

- Investigate the use of mass marking technology for use in conducting studies of hatchery lake trout life history in Lake Huron (MI).

  "…no active participation in this activity…"

– **Ashland National Fish and Wildlife Conservation Office will:**

- Develop and transfer expertise in state-of-the-art techniques in riparian and hydrology restoration and analysis for fish habitat (MI, MN, WI).

  "…provided technical experience on the following fishery restoration projects: The Hopkins Partners for Fish and Wildlife Program, Graveyard Creek Channel Restoration, Muskeg Creek,

Leadership in Science and Technology

The relative size of a coded-wire tag is apparent when placed on a finger-tip (above). A magnified image can be viewed below.

-USFWS photos

-GLFC

Reproductive pheromones are being released at this site to lure sea lampreys into the traps. This technique has potential to reduce invasive sea lamprey numbers in the Great Lakes without using the traditional chemical control.

Ox Creek Brook Trout Habitat Restoration, Marengo River Brook Trout Habitat Protection, Brilla Wildlife Habitat / Fish Creek Watershed Restorations, Kindt property, Kleinsteiber wetland restoration, Little Whittlesey Creek, Whitetail Waters and the Cunningham wetland restoration project were all completed; provided technical experience in cooperation with the Binational Program's Lake Superior Work Group Habitat and Wildlife Committee…"

– **Columbia National Fish and Wildlife Conservation Office will:**

- Work with the U.S. Geological Survey to determine the highest priority needs for research on the Missouri River, specifically related to endangered pallid sturgeon (IA, MO).

  "…participated in the pallid sturgeon research needs assessment workshop with state and Federal partners to prioritize research efforts…"

- Develop large river trawling technology and techniques for application on the Missouri River (IA, MO).

  "…worked with Innovative Nets of Louisiana and state partners to develop large river trawls for use in Missouri River…"

- Provide support to U.S. Geological Survey telemetry project determining life history and habitat use of pallid sturgeon in the Lower Missouri River (IA, KS, MO, NE).

  "…collected adult pallid sturgeon from Missouri River for the USGS telemetry project…"

- Provide support to the U.S. Geological Survey with collection of blood and eggs from shovelnose sturgeon to determine timing of spawning (MO).

  "…collected blood and egg samples from Missouri River shovelnose sturgeon to assist USGS with reproductive research…"

- Assist the U.S. Geological Survey and Missouri Department of Conservation with development of a stream classification system based on Instream Flow methodology for Missouri streams (MO).

  "…worked with USGS and MDC in funding and developing a stream classification system for Missouri…"

- Assist in the development of a pallid sturgeon needs assessment workshop (MO, NE).

  "…served on the executive committee to develop a pallid sturgeon research needs workshop…"

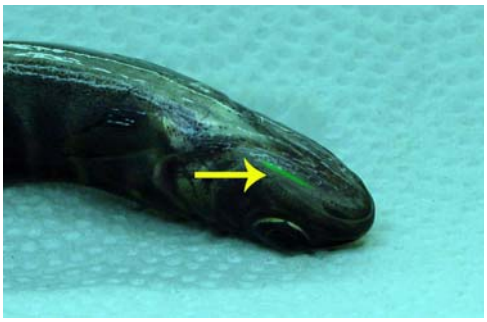
- Provide support to the U.S. Geological Survey and Southern Illinois University to develop single nucleotide polymorphism markers for standardized identification of pallid and shovelnose sturgeon larvae (MO, IA, NE, KS).

  "…provided shovelnose sturgeon samples from the Lower Missouri River to USGS and Southern Illinois University for genetic studies…"

Leadership in Science and Technology

- **Green Bay National Fish and Wildlife Conservation Office will:**
  - Investigate the use of mass marking technology for use in conducting studies of hatchery lake trout life history in Lake Michigan and Lake Huron (IL, IN, MI, WI).
    "…staff led a committee assigned by the Council of Lake Committees to develop an implementation plan for mass marking in the Great Lakes - provided briefing materials to Regional and Washington DC offices and staff…"
  - Work cooperatively with the Wisconsin DNR to develop population models for lake whitefish and yellow perch in Lake Michigan and lake trout in Lake Superior (WI).
    "…provided support to the Wisconsin DNR for lake whitefish and yellow perch fisheries in Lake Michigan and lake trout fisheries in Lake Superior and held coordination meetings with key DNR staff…"
  - Provide technical leadership during sea trials and assessment gear testing, and operation, of the *M/V Spencer F. Baird*, to enhance lake trout restoration in Lake Huron and Lake Michigan (IL, IN, MI, WI).
    "…set up and/or participated in the sea trials of the trawling equipment on the *M/V Spencer F. Baird*…"
- **La Crosse National Fish and Wildlife Conservation Office will:**
  - Continue work with the U.S. Geological Survey to develop laboratory methods to define life history characteristics and for propagating the endangered winged mapleleaf mussel (MN, WI).
    "…continued to work with the USGS to develop laboratory methods to define life history characteristics and for propagating the endangered winged mapleleaf mussel…"
- **Ludington and Marquette Biological Stations will:**
  - Analyze and implement results of the larval assessment and sterile male release technique peer reviews as part of sea lamprey control operations (IL, IN, MI, MN, NY, OH, PA, WI).
    "…developed plan to address outstanding issues related to the Larval Assessment Review after completion of the Control Integrated with Assessment Optimally research - progress on the results of the Review was suspended while this research was being conducted; continued to evaluate and implement recommendations of the sterile male review, particularly progress in evaluating the potential of sterilized females, understanding of stock recruitment, and efforts to obtain more males for sterilization - the sterile male release technique review and ongoing evaluations continued to indicate that introductions of sterile males were reducing recruitment of sea lamprey as predicted, and that the technique is part of the integrated control program for sea lamprey in the St. Marys River…"
  - Participate in the development of experimental pheromone release technique as an alternative sea lamprey control measure (IL, IN, MI, MN, NY, OH, PA, WI).
    "…took lead roles in GLFC task forces and subgroups to develop pheromone strategies that would guide the implementation of pheromones as an alternative method of sea lamprey control…"
  - Work in partnership with the Great Lakes Fishery Commission, US Geological Survey, and sea lamprey program researchers to conduct field trials for the use of migratory and reproductive pheromones as alternative means for sea lamprey control (IL, IN, MI, MN, NY, PA, OH, WI).
    "…cooperated with the GLFC, USGS and sea lamprey researchers to conduct field studies to test the potential of sea lamprey pheromone components to guide sea lamprey movement…"
- **Genoa National Fish Hatchery will:**
  - Culture largemouth bass, northern pike, rainbow trout, smallmouth bass, walleye, and yellow perch and other fish species as requested for USGS and university research (WI).
    "…provided freshwater mussels and northern pike, walleye, largemouth bass to USGS, and others for ongoing research projects…"

Leadership in Science and Technology



-USFWS

The arrow marks a green Visual Implant Elasomer tag. This technology is being applied at the Iron River National Fish Hatchery on brook trout that will be stocked into Whittlesey Creek near Ashland, WI.

-Kay Hively

Jamie Pacheco of the Neosho National Fish Hatchery proudly displays an automatic fish feeder that uses solar panels to charge the batteries.

-USFWS

Eric Leis of the La Crosse Fish Health Center samples fish from Lake Erie to determine whether viral hemorrhagic septicemia can be detected.

- Continue to assist in ongoing Science Support Program project with Upper Midwest Environmental Science Center in studies to eliminate bacterial kidney disease (BKD) in captive populations of coaster brook trout and lake trout using the antibiotic Baytril (WI).

  "…continued to work with USGS to search for positive populations of BKD fish available for study completion.

- Perform wild fish collection tasks/trials necessary to determine the fish host/reproductive biology of the sheepnose mussel, a candidate species on the Endangered Species list (WI, MN, IA).

  "…determined two confirmed new host fish species for the sheepnose mussel, and are beginning to understand the narrow timeframe of reproductive gravidity of this candidate species…"

- Work with USGS to determine the effects of a new zebra mussel control on native mussel populations (WI).

  "…completed the first stage to determine whether a new toxicant is also harmful to native mussels - Genoa NFH cultured and supplied the sub-adult black sandshell mussels used for the determination…."

- Continue investigations to refine methods for the large scale production of the endangered Higgins' eye pearlymussel, and endangered winged mapleleaf mussel (WI, MN, IA).

  "…continued to refine methods for the artificial propagation of the Higgins' eye pearlymussels and winged mapleleaf mussels by experimenting with different floating cage locations and designs, and tagging released sub-adult mussels to determine post stocking survival rates at release locations…"

– **Iron River National Fish Hatchery will:**

- Continue to investigate the use of mass marking technology for use in conducting studies of hatchery lake trout life history in Lake Michigan and Lake Huron (IL, IN, MI, WI).

  "…provided results of mass marking tests performed on-site upon request - worked cooperatively with the Green Bay NFWCO to ensure adequate information exchange occurred…"

- Continue to investigate the use of hydrogen peroxide as an alternative to formaldehyde for control of fungus on eggs and fish (WI).

  "…partnered with the USGS Upper Midwest Environmental Sciences Center to join the Investigational New Animal Drug (INAD) protocol for evaluating the use of hydrogen peroxide on eggs and fish - specific evaluations are being developed and will proceed in future years…"

- Continue to investigate the use of moist air egg incubation technology to facilitate delaying egg maturation and reduce or eliminate use of chemicals for control of fungus on developing eggs (WI).

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"…purchased a moist air incubation chiller unit during FY2006 - study plans are developed for FY2008 to evaluate this new technology for its application to the lake trout program - worked closely with the manufacturer to get the system operational; unfortunately, it was not ready for egg incubation in FY2007…"

– **Jordan River National Fish Hatchery will:**
  - Provide technical leadership in the operation of the *M/V Spencer F. Baird* during spring 2007 stocking and assessment activities to enhance lake trout rehabilitation in Lake Huron and Lake Michigan (IL, IN, MI, WI).

"…directly involved in the planning and implementation of the 2007 lake trout distribution schedule; involved with the repair of construction flaws in the fish transportation equipment; biologists were onboard the *M/V Spencer F. Baird* evaluating and documenting the stocking operations this past spring…"

  - Continue to assist with the use of mass marking technology for use in conducting studies of hatchery lake trout life history in Lake Michigan and Lake Huron (IL, IN, MI, WI).

"…reviewed the proposed schedule for the mass marking tagging trailer dispersal - made recommendations and have been keeping abreast of the effort to bring this technology to the Great Lakes basin; 160,000 lake trout yearlings received coded-wire tags at Jordan River NFH for the ongoing movement, survival and sea lamprey wounding study on the Northern Refuge in Lake Huron…"

– **Neosho National Fish Hatchery will:**
  - Experiment with live and dry diets for pallid sturgeon culture as part of the Pallid Sturgeon Recovery effort (MO, KS, IA, NE).

"…experimented with live and dry diets for pallid sturgeon culture as part of the Pallid Sturgeon Recovery effort…"

– **Pendills Creek National Fish Hatchery will:**
  - Continue to investigate the use of mass marking technology for use in conducting studies of hatchery lake trout life history in Lake Michigan and Lake Huron (IL, IN, MI, WI).

"…continued work with the GLFC initiative to determine hatchery logistics for mass marking…."

– **La Crosse Fish Health Center will:**
  - Teach a fish health management short course in Region 3 (IL, IN, IA, OH, MI, MN, MO, WI).

"…taught a fish health management short course in Region 3 at our office…"

  - Work with research labs to field test new procedures and techniques (IL, IN, IA, OH, MI, MN, MO, WI).

"…worked with research labs to field test new procedures and techniques through Inter-agency agreements…"

  - Continue to refine the Service's Fish Health Policies and Guidelines (IL, IN, IA, OH, MI, MN, MO, WI).

"…currently updating the National Wild Fish Health Survey Manual…"

Objective - Utilize appropriate scientific and technologic tools in formulating and executing fishery management plans and policies.

Our Commitment

– **Alpena National Fish and Wildlife Conservation Office will:**
  - Participate in the development and use of Geographic Information Systems (GIS) capability to support aquatic habitat conservation activities for Lake Huron and Lake Erie (MI, OH).

"…initiated discussion with the Michigan DNR personnel for creation of a small barriers layer for the Lake Huron GIS database for use in delivery of a collaborative fish passage program in

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the Lake Huron watershed; three staff members were trained in GIS software use during 2007…"

- Contribute to lake-wide assessment plans and fish community and environmental objectives for lakes Huron and Erie, through the Great Lakes Fishery Commission (MI, OH).

"…serve as Fish and Wildlife Service member of the Lake Huron Technical Committee and participated in winter and summer meetings; serve as chair of the St. Marys River Fishery Task Group; serve as chair of the Lake Huron Lake Sturgeon Task Group…"

- Evaluate and define genetic characteristics of lake sturgeon and contribute to restoration planning and workshops on these stocks (MI, OH).

"…led Fish and Wildlife Service efforts to identify funding, research needs, and restoration planning for lake sturgeon genetic research; served as chair of the Lake Sturgeon Coordination Meeting to identify research needs and threats to lake sturgeon in the Great Lakes…"

- Conduct statistical catch-at-age modeling of lake trout and lake whitefish populations in Northern Lake Huron to produce safe harvest limits for state recreational and tribal commercial fisheries (MI).

"…served as lead for model production of 2007 safe harvest limits for lake trout in MH-1, and assisted the Michigan DNR in modeling the safe harvest limits for lake trout in MH-2; served as lead for model production of 2007 safe harvest limits for lake whitefish in WFH05 and assisted CORA in modeling in WFH04; as chair for Modeling Subcommittee, provided 2007 recommended harvest limits for lake trout and lake whitefish in all 1836 Treaty waters to TFC…"

- Provide leadership to USGS and the Lake Huron Technical Committee for lakewide burbot aging to assist in efforts to quantify age and growth of Lake Huron populations (MI).

"…aged otoliths samples collected from 62 burbot…"

- Increase involvement in the Michigan Stream Team to develop regional curves for improved outcomes of watershed restoration efforts in Michigan (MI).

"…actively participated in bi-monthly meetings, and assisted in 2007 field work collecting Northeast Michigan regional curve data on reference stream reaches…"

- Update and continue management of the Great Lakes Lake Sturgeon Tag Identification Database (housed on the Great Lakes Fishery Commission website) (MI, WI, MN, IL, IN).

"…provided updates to the Great Lakes Lake Sturgeon Tag Identification Database with new information provided by participating partners…"

– **Ashland National Fish and Wildlife Conservation Office will:**

- Contribute to lake-wide assessment plans and fish community objectives for Lake Superior through the Great Lakes Fishery Commission (MI, MN, WI).

"…continue to work with the Lake Superior Binational Program, serving on the Lake Superior Task Force and Work Group - presented status updates on lake sturgeon and coaster brook trout rehabilitation at the GLFC Lake Committee meeting; summarized data on lake trout, lake whitefish, siscowet, cisco, and all species collected during aquatic invasive species surveys for the Lake Superior State of the Lake report…"

- Contribute to interagency efforts to evaluate and define genetic characteristics of migratory Lake Superior brook trout and to restoration planning and workshops on these stocks (MI, MN, WI).

"…assisted the Red Cliff Natural Resources Department with their fall assessments of coaster brook trout in Lake Superior; conducted a fishery survey on the Grand Portage Indian Reservation to determine the presence and relative abundance of coaster brook trout; conducted coaster brook trout survey in cooperation with the National Park Service and Michigan DNR in Tobin Harbor; in 2007 a total of 27 Coastal Program projects (Great Lakes) were funded that could benefit brook trout restoration efforts…"

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- Contribute to interagency efforts to evaluate and define genetic characteristics of lake sturgeon and restoration planning and workshops on these stocks (MI, MN, WI).

"…gathered data to evaluate stocking progress and to describe the status of lake sturgeon in Lake Superior near the Ontonagon River; participated in the Great Lakes Lake Sturgeon Coordination meeting to address priority research and assessment needs and selected emerging issues; presented status updates on lake sturgeon and coaster brook trout rehabilitation at the GLFC Lake Committee meeting; assessed the White River to determine if sturgeon are reaching spawning habitat upriver or are being blocked by four large log jams; continued capture and equipment assistance on the Grand Portage Reservation for a lake sturgeon telemetry study in the St. Louis River; provided training for students at a lake sturgeon registration station during the Lake Winnebago spear harvest season; in 2007 a total of 27 Coastal Program projects (Great Lakes) were funded that could benefit lake sturgeon restoration efforts…"

– **Columbia National Fish and Wildlife Conservation Office will:**

- Manage and analyze data in the Mississippi Interstate Cooperative Resource Association Paddlefish Stock Assessment Database to help develop inter-jurisdictional management plans (IL, IN, IA, MN, MO, OH, WI).

"…managed the Mississippi Interstate Cooperative Resource Association Paddlefish Stock Assessment Database and analyzed data for the National Paddlefish Stock Assessment project…"

- Evaluate the effectiveness of a push trawl for sampling shallow water habitats in the Missouri River (IA, KS, MO, NE).

"…utilized the push trawl in Habitat Assessment and Monitoring Program to sample shallow water habitats in the Missouri River…"

- Evaluate the effectiveness of standardized sampling gears for capturing big river fishes (IA, KS, MO, NE).

"…completed evaluation of trawl, trammel net and gill net data from Missouri River sampling programs…"

– **Green Bay National Fish and Wildlife Conservation Office will:**

- Provide technical assistance to the other Service's Great Lakes fisheries stations through the Great Lakes Fishery Analyst (IL, IN, MI, MN, NY, OH, PA, WI).

"…provided technical assistance to the other Fish and Wildlife Service's Great Lakes fisheries stations through the Great Lakes Fishery Analyst…"

- Provide technical leadership by chairing the Lake Michigan Lake Trout Task Group, Lake Sturgeon Task Group, and the Modeling Subcommittee (IL, IN, MI, WI, Tribes).

"…provided technical leadership by chairing the Lake Michigan Lake Trout Task Group, Lake Sturgeon Task Group, and the Modeling Subcommittee…"

- Contribute to lake-wide assessment plans and fish community objectives for Lake Michigan through the Great Lakes Fishery Commission (IL, IN, MI, WI, Tribes).

"…contributed to lake-wide assessment plans and fish community objectives for Lake Michigan through the GLFC…"

- Evaluate and define genetic characteristics of lake sturgeon and contribute to restoration planning and workshops on these stocks (IL, IN, MI, WI).

"…staff contributed to the development of a genetics management plan for sturgeon in the Great lakes basin…"

– **Iron River National Fish Hatchery will:**

- Refine fish culture and husbandry techniques in order to produce the highest quality lake trout possible (IL, IN, MI, MN, WI).

"…continued to utilize liquid oxygen to gain a 20% increase in yearling production; continued to evaluate its hatchery operations to maximize conversion, gain, and fish health while maintaining

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quality fish for stocking - all groups of stocked fish undergo a Goedes condition evaluation prior to release…"

- Develop methods to manipulate lake trout brood stock spawning cycles and incubation periods by delaying maturation and chilling eggs, to better meet production requirements (IL, IN, MI, NY, WI).

"…purchased a moist air incubation chiller unit in FY2006 - study plans are developed for FY2008 to evaluate this new technology for its application to the lake trout program - if successful, it could drastically change our egg incubation protocol and reduce the use of hazardous chemicals to control fungus…"

- Work with University partners to initiate research projects relevant to lake trout and coaster brook trout restoration within the Great Lakes (IL, IN, MI, MN, WI).

"…provided coaster brook trout gametes to Purdue University for use in evaluating early embryo development and other early life history characteristics…"

– **Jordan River National Fish Hatchery will:**

- Refine fish culture and husbandry techniques in order to produce the highest quality lake trout possible (MN, IL, IN, MI, WI).

"…reviewed and evaluated Standard Operation Procedures and fish culture techniques; began drafting a Comprehensive Hatchery Management Plan to be used as a template for Region 3 lake trout hatcheries..."

- Assist the Lake Trout Task Group in the preparation of a comprehensive lake trout rehabilitation plan for the Service's Great Lakes operations covering all aspects of propagation and stocking (IL, IN, MI, WI).

"…involved in the review and comments - made significant contributions to the Lake Trout Work Groups - served as chair of Lake Huron Group…"

– **Neosho National Fish Hatchery will:**

- Continue to refine density requirements for culturing pallid sturgeon (IA, KS, MO, NE).

"…continued to refine density requirements for culturing pallid sturgeon…"

- Continue to refine diet requirements for pallid sturgeon production (IA, KS, MO, NE).

"…continued to refine diet requirements for pallid sturgeon production…"

– **Pendills Creek National Fish Hatchery will:**

- Refine fish culture and husbandry techniques in order to produce the highest quality lake trout possible (IL, IN, MI, WI).

"…refining of fish culture and husbandry techniques is ongoing…"

– **Pendills Creek and Sullivan Creek National Fish Hatcheries will:**

- Develop methodology to manipulate lake trout brood stock spawning cycles by delaying egg maturation and continue evaluation and monitoring of moist air chilling/incubation to better meet production requirements (IL, IN, MI, NY, WI).

"…working on performance issues with the moist air incubator manufacturer and are awaiting new parts…"

– **La Crosse Fish Health Center will:**

- Provide fish health services to states, tribes, other Federal agencies, and private aquaculturists during any fish health emergency (IL, IN, IA, OH, MI, MN, MO, WI).

"…worked with Florinphenicol and Streptococcus studies with USGS at a private facility in Minnesota…"

- Maintain a modern, operational laboratory able to conduct highly technical laboratory procedures (IL, IN, IA, OH, MI, MN, MO, WI).

"…maintained a modern, operational laboratory able to conduct highly technical laboratory procedures…"

National Fish Habitat Action Plan

The National Fish Habitat Action Plan is an unprecedented attempt to address an unseen crisis for fish nationwide: loss and degradation of their watery homes. The plan was born in 2001 when an ad hoc group supported by the Sport Fishing and Boating Partnership Council explored the notion of developing a partnership effort for fish on the scale of what was done for waterfowl in the 1980s through the North American Waterfowl Management Plan. The need for a nationally focused fisheries conservation effort was validated by fisheries experts attending a series of regional meetings held by the Council - they were nearly unanimous in their support for the plan. In 2004 the International Association of Fish and Wildlife Agencies, which represents all state wildlife agencies, voted to lead the plan. The Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries are principal Federal partners.

The Midwest Driftless Area Restoration Effort is a geographically-focused, locally-driven, consensus-based effort to protect, restore, and enhance riparian and aquatic habitat throughout the Driftless Area. The Midwest Driftless Area, noted as a national treasure, is located in the heart of the Upper Mississippi River valley, encompassing a 24,000 square-mile area of southeast Minnesota, northeast Iowa, southwest Wisconsin, and northwest Illinois. The Midwest Driftless Area Restoration Effort includes a broad partnership of Federal, state, and local government, landowners, academic institutions, conservation organizations, sportsmen's groups, and other interested parties. This coalition of partners will work together to identify threats to brook trout and other aquatic species and seek potential solutions, prioritize watershed focus areas and projects, implement actions with measurable successes, build new partnerships and strengthen existing ones, leverage additional funds, and produce outreach and educational programs to raise public awareness and ensure future support.

Aquatic resources in the United States are in decline, and habitat destruction is a principal culprit. Habitat alteration is a contributing factor to 75 percent of all fish extinctions during the past 75 years and 91 percent of fish listings under the Endangered Species Act.

National Fish Passage Program

Through September 30, 2007, the Midwest Region Fisheries Program has initiated 69 projects. Through FY2007, 87 barriers have been removed and 660 stream miles reconnected. Projects currently in progress will remove 23 barriers and reconnect an additional 394 stream miles.

Summary Table of USFWS Region 3 Fish Passage Program Accomplishments 1999 - 2007

	# of Barriers Removed/ In-Progress	# of Projects	# of Stream Miles Reconnected/ In-Progress	Fish Passage Program Funding	Parner Matching Funds and In-Kind Support	Total Project Costs	Numer of Partners
Iowa	9	3	72.1	$118,727	$255,000	$373,727	7
Illinois	5	3	172	$207,387	$851,442	$1,058,829	32
Michigan	26	28	164	$884,787	$1,960,730	$2,845,517	47
Minnesota	9	8	397.5	$374,714	$3,613,000	$3,987,714	17
Missouri	6	7	59.4	$337,153	$539,690	$876,843	14
Ohio	3	3	52	$115,000	$138,900	$253,900	8
Wisconsin	52	17	137.7	$455,932	$699,748	$1,155,680	30
Totals	**110**	**69**	**1054.7**	**$2,493,700**	**$8,058,510**	**$10,552,210**	**155**

Aquatic Habitat Conservation and Management

Goal/Actual Accomplishment for FY 2007

Performance Measures (Fisheries Strategic Plan v 11)

Aquatic Habitat Conservation and Management

	Regional Fisheries Goal	Alpena NFWCO Goal	Ashland NFWCO Goal	Carter-ville NFWCO Goal	Columbia NFWCO Goal	Genoa NFH Goal	Green Bay/FRO Goal	Iron River NFH Goal	Jordan River NFH Goal	La Crosse FHC Goal	La Crosse NFWCO Goal	Neosho NFH Goal	Pendills Creek NFH Goal	Sea Lamprey Control Goal
Number of acres re-opened to Fish Passage bY FWMA	0/400	400	0	0	0	0	0	0	0	0	0	0	0	0
Number miles re-opened to Fish Passage BY FWMA	71/117	23	55	0	21	0	18	0	0	0	0	0	0	0
Number fish passage barriers removed or bypassed by FWMA	14/14	6	3	0	2	0	3	0	0	0	0	0	0	0
Number of habitat assessments completed FWMA	45/63	0	35	0	6	0	12	0	0	0	10	0	0	0
Number miles of instream habitat assassed by FWMA	120/554	0	53	0	199	0	300	0	0	0	2	0	0	0
Number miles of instream restored by FWMA	0/5	0	2	0	0	0	1	0	0	0	2	0	0	0
Number of fish populations of management concer with approved watershed mgmt. plans by FWMA	0/1	0	0	0	0	0	1	0	0	0	0	0	0	0
Number of NFHS NPDES permits in compliance	4/4	NA	NA	NA	NA	0	NA	1	1	NA	NA	NA	2	NA

-USFWS photo by Susan Wells

This bottomless culvert replaced two undersized, perched culverts on the Little Ocqueoc River.

-Ron Purdy

A temperature depth recorder is surgically removed from a lake sturgeon. The battery-operated devices are designed to record information for three years.

-USFWS/Heather Rawlings

The addition of large woody debris adds the finishing touch to repair a stream bank erosion site on the AuSable River in Michigan.

Aquatic Habitat Conservation and Management

Aquatic Habitat Conservation and Management Goal: America's streams, lakes, estuaries, and wetlands are functional ecosystems that support self-sustaining communities of fish and other aquatic resources.

Our primary focus is on collaborating with partners to conserve and restore habitats for sturgeon, trout, darters, and other native fish species.

Objective - Facilitate management of aquatic habitats on national and regional scales.

Our Commitment

– **Regional Office will:**

- Work with partners and stakeholders through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund aquatic habitat enhancement proposals (IL, IN, MI, MN, NY, OH, PA, WI).

  "…the following Restoration Act funded projects were in progress or completed during FY 2007: Boggy bottoms wetland restoration - Ducks Unlimited; Linking yellow perch movements to near shore bottom substrate - University of Illinois; Lake St. Clair coastal wetland enhancement - Ducks Unlimited; Huron-Erie corridor system habitat assessment - The Ohio State University; and In-situ determination of the depth and thermal habitat used by Chinook salmon - USGS Great Lakes Science Center and Chippewa Ottawa Resources Authority…"
- Work through the Habitat and Species Strategy Team under the Great Lakes Regional Collaboration to conserve and restore habitat for native fish and fisheries (IL, IN, MI, MN, NY, OH, PA, WI).

  "…worked through the Habitat and Species Strategy Team under the Great Lakes Regional Collaboration to conserve and restore habitat for native fish and fisheries…"
- Work with partners and stakeholders to support and develop the National Fisheries Habitat Action Plan (IL, IN, IA, MI, MN, MO, OH, WI).

  "…worked with partners and stakeholders to support and develop the National Fisheries Habitat Action Plan; hired a Regional Coordinator in fiscal year 2007…"
- Work with partners and stakeholders to develop watershed-scale Fish Passage program initiatives (IL, IN, IA, MI, MN, MO, OH, WI).

  "…completed 14 Fish Passage Program projects removing a total of 14 barriers and restoring 95 miles of stream for native fish and other aquatic species; continued or initiated 15 Fish Passage Program projects toward removing a total of 13 barriers and restoring 320 miles of stream for native fish and other aquatic species…"

– **Alpena National Fish and Wildlife Conservation Office will:**

- Employ a systematic aquatic habitat information and evaluation approach for use in prioritizing habitat restoration activities in the Lake Huron and Lake Erie watersheds, in coordination with the Michigan and Ohio DNR's and other partners (MI, OH).

  "…continued active participation in a regional team for development of ranking criteria for a Region 3 Habitat Restoration Program…"
- Work with partners to propose, implement, and monitor results of habitat restoration projects through the Service's Partners for Fish and Wildlife Program, Fish Passage Program and Coastal Program in Northern Michigan (MI).

  "…monitored 80% of past Partners projects (all 2006 and 2001 projects) in 2007 according to Partners protocols; completed a monitoring form for each survey and placed in landowner's folder; removed three barriers using Fish Passage Program funding, opening 11.5 miles of river to fish passage in 2 watersheds; attended and participated in meetings of 5 watershed restoration committees and the Michigan Stream Team; submitted 14 Fish Passage proposals for FY 2008 funding…"

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-USFWS

Through the Partners for Fish and Wildlife program, the Ashland National Fish and Wildlife Conservation Office partnered with the Town of Brule, Wisconsin Department of Natural Resources, Natural Resources Conservation Service, and the County Land Conservation Department to replace a culvert that blocked fish passage on Cutler Creek in Douglas County, Wisconsin.

-USFWS

The Whitetail Waters Wetland Project has been completed and restores six wetland sites for a total of 12.5 acres.

- Lead the Service's implementation of the Partners for Fish and Wildlife Program habitat restoration projects in 20 counties of Michigan's Northern Lower Peninsula (MI).
  "…restored 27 acres of wetlands on 8 sites, and repairs were completed on 5 additional sites totaling 17 acres in FY 2007 through the Alpena NFWCO Partners Program; planted 18 acres of grasslands on 2 properties; opened 14 miles of river to fish passage with the improvement of 5 road/stream crossing sites in 4 watersheds; improved 20 miles of river in 2 watersheds with the placement of large woody debris for fish habitat benefiting populations of brook trout; restored stream-bank erosion sites on 3,850 ft of riparian/in-stream habitat in 5 Northeast Michigan watersheds; station Partners coordinator actively serves on 5 watershed restoration committees, on the Huron Pines Technical Review Committee, and on the Michigan Stream Team…"
- Work with the Michigan and Ohio DNR's and USGS to identify and describe juvenile rearing and adult spawning habitat for lake sturgeon in the Saginaw River, St. Clair River, Detroit River and Maumee River (MI, OH).
  "…collaborated with partners from Michigan DNR, Ohio DOW, USGS and Ontario MNR to complete spring spawning assessments in the Saginaw River watershed, Maumee River watershed, and the Huron-Erie Corridor…"
- Work with USGS, Michigan DNR and other partners to develop a National Fish Habitat joint venture focusing on the Huron-Erie Corridor (HEC) (MI, OH).
  "…serve as Fish and Wildlife Service lead for the HEC Partnership and participated in an annual Steering Committee meeting; assist in development of Great Lakes National Fish Habitat Action Plan (NFHAP) Partnership by providing information on HEC Partnership development and Steering Committee operations to serve a template…"

– **Ashland National Fish and Wildlife Conservation Office will:**

- Employ a systematic aquatic habitat information and evaluation approach in prioritizing habitat restoration activities in the Lake Superior watershed, in coordination with the Michigan, Minnesota and Wisconsin DNR's, and other partners (MI, MN, WI).
  "…worked with partners throughout the Lake Superior basin to prioritize restoration efforts in support of the Great Lakes Basin Habitat Partnership…"
- Work with partners to develop, prioritize and monitor habitat improvement projects through the Service's Partners for Fish and Wildlife Program, Great Lakes Coastal Program, and Fish Passage Program, and the Superior Coastal Initiative under the North American Wetlands Conservation Act (MI, MN, WI).

Aquatic Habitat Conservation and Management

"…attended the Circle of Flight (CoF) meetings and coordinated projects with the three individual state Partners for Fish and Wildlife Program offices; additional CoF, Partners for Fish & Wildlife and Fish Passage Program projects completed include: The Hopkins Partners for Fish and Wildlife Program, Graveyard Creek Channel Restoration, Muskeg Creek, Ox Creek Brook Trout Habitat Restoration, Marengo River Brook Trout Habitat Protection, Brilla Wildlife Habitat / Fish Creek Watershed Restorations, Kindt property, Kleinsteiber wetland restoration, Little Whittlesey Creek, Whitetail Waters, Trout Brook Fish Passage Barrier Removal, and the Cunningham wetland restoration project; jointly administer the Coastal Program (Great Lakes) - in 2007 a total of 27 projects were funded…"

- Work with the appropriate agencies and organizations to help with the restoration of the Bad River Watershed and the five priority Bayfield Peninsula streams: Whittlesey Creek, Sioux River, Raspberry River, Bark River and Cranberry River (WI).

"…assessed lake sturgeon in the White River; removed the Trout Brook fish passage barrier; restored the Graveyard Creek channel; helped stock 20,000 (1.5 inch) spring fingerlings and 50 adult coaster brook into Whittlesey Creek; participated in the Binational Program's Lake Superior Work Group…"

- Co-lead the Service's implementation of Coastal Program supported aquatic habitat conservation and restoration activities in the Upper Great Lakes with East Lansing Field Office (IL, IN, MI, MN, WI).

"…jointly administer the Coastal Program (Great Lakes) - in 2007 a total of 27 projects were funded…"

- Assist Federal resource managers with aquatic habitat management on National Forests and National Parks (MN, MI, WI).

"…conducted a coaster brook trout survey in cooperation with the National Park Service and Michigan DNR in Tobin Harbor; assisted with bald eagle monitoring and banding in the Apostle Islands National Park…"

- Participate in the Lake Superior Binational Program through the Lake Superior LaMP Terrestrial and Aquatic Committees and the Lake Superior Work Group, and advocate for aquatic and terrestrial habitat restoration projects (MN, MI, WI).

"…participated with the Binational Program's Lake Superior Work Group Habitat and Wildlife Committee's; completed field work on the Lake Superior Basin Herptile Monitoring Program…"

- Work with the Minnesota, Michigan and Wisconsin DNR's, to develop a National Fish Habitat joint venture focusing on Lake Superior tributary habitat restoration (MN, MI, WI).

"…worked with partners throughout the Lake Superior basin to prioritize restoration efforts in support of the Great Lakes Basin Habitat Partnership…"

- Work with the Minnesota and Wisconsin DNR's, St. Louis River Citizens Action Committee, and other partners involved in the Lower St. Louis River Habitat Plan (MN, WI).

"…continued assistance with a Grand Portage tribal lake sturgeon study on the Lower St. Louis River…"

– **Carterville National Fish and Wildlife Conservation Office will:**

- Serve on interagency teams to develop, prioritize and monitor habitat improvement projects as part of the Upper Mississippi River Environmental Management Program (IL, MO).

"…participated in multi-agency teams, including Environmental Management Program Teams, addressing habitat improvements in the Mississippi River basin; also participated in the River Resources Action Team, the Middle Mississippi River Partnership, and the Upper Mississippi River Coordinating Council…"

- Serve on interagency teams to develop, prioritize and monitor habitat improvement projects as part of the Navigation and Ecosystem Sustainability Program (IL, MO).

"…participated in multi-agency teams addressing habitat improvements in the Mississippi River basin - Navigation and Ecosystem Sustainability Program teams addressed planning for the

Aquatic Habitat Conservation and Management

-USFWS photo by Rob Simmonds

Biologist Nate Caswell records data while technician Ray Wild measures a fish captured during pre-restoration sampling at the Harlow Island side channel site on the Middle Mississippi River, Missouri.

-USFWS

The Midwest Driftless Area is a 24,000 square mile region of Southeast Minnesota, Northeast Iowa, Western Wisconsin, and Northwest Illinois that was circumvented by the Wisconsin glacier. The area is circled in green on the above map.

Middle Mississippi River and worked to develop fish passage projects at Lock and Dam 22 and Mel Price Lock and Dam…"

- Work with the Region 3 Fisheries Program Fish Habitat Team to identify priority areas for aquatic habitat conservation and/or restoration in Region 3 (IA, IL, IN, MI, MN, MO, OH, WI).

  "…chaired the Region 3 Fish Habitat Team that developed criteria for selecting aquatic habitat focus areas in the region - an initial screening has been completed and is undergoing internal review - habitat restoration and conservation efforts will be directed to those areas where the greatest benefit can be realized thus resulting in the greatest improvement to aquatic-dependent species…"

- Work with partners to form an Ohio River Basin Mussel and Fish Habitat Partnership that is officially recognized by the National Fish Habitat Action Plan and then begin identifying and implementing habitat conservation and restoration actions (IL, IN, OH).

  "…the Ohio River Basin Habitat Partnership (Partnership) is currently a candidate partnership under NFHAP - to date, the Carterville NFWCO has worked hand in hand with a team of people in the Ohio River basin, to 1) begin forming the partnership, 2) develop a fact sheet, 3) seek and receive recognition as a Candidate Partnership under the NFHAP, 4) apply for a Multi-State Conservation Grant, and 5) discuss the partnership with state fish chiefs from throughout the basin - this effort has the potential to improve the quality of habitat in a watershed covering parts of 14 states, home to numerous mussel species which are the most endangered group of animals in the United States, supporting diverse sport and native fish populations, and home to about 10% of the United States population (providing drinking water to many of those residents)…"

- Work with the Ohio River Valley Ecosystem Team to foster habitat conservation and restoration in the Ohio River basin (IL, IN, OH).

  "…worked with the Ohio River Valley Ecosystem Team and others in the formation of the Ohio River Basin Habitat Partnership…"

- Work with Region 3 biofuels work group to identify Region 3's need for involvement in the biofuels arena as well as what we hope to accomplish and how we plan to accomplish it (IA, IL, IN, MI, MN, MO, OH, WI).

  "…participated in conference calls of the biofuels work group to discuss Fish and Wildlife Service involvement in this growing area…"

Aquatic Habitat Conservation and Management

– **Columbia National Fish and Wildlife Conservation Office will:**
  - Coordinate and evaluate Missouri River habitat projects with U.S. Army Corps of Engineers, DeSoto NWR, Big Muddy National Fish & Wildlife Refuge, Ft. Leavenworth Army Post and basin states (IA, KS, MO, NE).

    "…assessed shallow water habitats and chutes created by the U.S. Army Corps of Engineers…"
  - Provide technical assistance for Missouri River habitat projects as part of the Missouri River Mitigation Project Team (IA, KS, MO, NE).

    "…assessed created habitats and participated in project team meetings to discuss habitat project designs…"
  - Monitor and assess fish communities in portions of the Missouri River to determine fish response to habitat modifications (MO).

    "…assessed fish communities at habitat modification sites in the Lower Missouri River…"

– **Green Bay National Fish and Wildlife Conservation Office will:**
  - Work with the Illinois, Indiana, Michigan and Wisconsin DNR's to employ a systematic approach to evaluate and prioritize aquatic habitat restoration activities in the Lake Michigan watershed (IL, IN, MI, WI).

    "..added Rick Westerhof to staff to coordinate activities on the east shore of Lake Michigan; Stewart Cogswell now coordinates activities on the west shore of Lake Michigan…"
  - Propose, implement and monitor the results of aquatic habitat improvement projects in the Lake Michigan watershed through the Service's Partners for Fish and Wildlife Program, Fish Passage Program, and Coastal Program, working with the Illinois, Indiana, Michigan, and Wisconsin DNR's, and other partners (IL, IN, MI, WI).

    "…completed eight habitat projects – by funding source: Fish Passage = 3, Fish Habitat Restoration = 1, Partners for Fish and Wildlife = 2, and Coastal = 2. Six projects were in Michigan and 2 in Wisconsin…"

– **La Crosse National Fish and Wildlife Conservation Office will:**
  - Work with Service programs, states and other partners as part of the National Fish Habitat Initiative's Driftless Area Restoration Effort partnership to prioritize and develop aquatic habitat restoration projects in the Driftless Area (IL, IA, MN, WI).

    "…worked with Fish and Wildlife Service programs, states, Fishers and Farmers Partnership, and other partners in the Upper Mississippi River basin as part of the National Fish Habitat Initiative's Driftless Area Restoration Effort partnership to prioritize and develop aquatic habitat restoration projects…"
  - Participate in planning ecosystem restoration projects implemented as part of the U.S. Army Corps of Engineers' Upper Mississippi River-Illinois Waterway System Navigation Study (IL, IA, MN, WI).

    "…participated in planning ecosystem restoration projects implemented as part of the U.S. Army Corps of Engineers' Upper Mississippi River/Illinois Waterway System Navigation Study that has led to the development of the Navigation Environmental Sustainability Program (NESP)…"
  - Serve on interagency teams to develop, prioritize and monitor habitat improvement projects constructed as part of the Upper Mississippi River Environmental Management Program (IL, IA, MN, WI).

    "…served on interagency teams to develop, prioritize and monitor habitat improvement projects constructed as part of the Upper Mississippi River Environmental Management Program…"
  - Participate in planning and evaluation of fish passage improvements at locks and dams as part of the Upper Mississippi River Navigation Project (IL, IA, MN, WI).

    "…participated in planning and evaluation of fish passage improvements at locks and dams as part of the Upper Mississippi River Navigation Project, with emphasis on the Pool 9 spillway…"

Aquatic Habitat Conservation and Management

-USFWS

The effluent basin at the Jordan River National Fish Hatchery settles out waste solids from fish culture operations, minimizing the impact on the Jordan River.

-USFWS photo by Clarice Beckner

Biologist John Johnston (left) and Maintenance Mechanic Bob Petersen clean the effluent settling basin at the Jordan River National Fish Hatchery, an annual requirement under their water discharge permit.

- Work with the appropriate agencies and organizations to help with the restoration of the Red River watershed (MN).
  "…worked with agencies and organizations to help with the restoration of the Red River watershed, especially through proposing fish passage projects at Hixton and Christine dams and by celebrating the completion of the fish passage project at Heiberg Dam…"

– **Iron River NFH will:**

- Monitor the status of Schacte Creek and Middle Creek watersheds and take action as needed, in coordination with the Wisconsin DNR, to conserve aquatic habitat quality (WI).
  "…worked cooperatively with the Ashland NFWCO and coordinated with the Wisconsin DNR, when required, on activities regarding the Schacte and Middle Creek watersheds - the water discharge permit is currently being renewed by the Wisconsin DNR…"
- Monitor the Orienta Falls site on the Iron River and continue to advise the Regional Office on the status of fish passage and actions needed to protect programs at Iron River NFH from impacts through feral fish in the basin (WI).
  "…routinely monitored the Orienta Falls site by physically checking the barrier quarterly during the year - worked cooperatively with the Regional Office, Ashland NFWCO, Green Bay Ecological Services Field Office, and Marquette Biological Station on all activities regarding the Orienta Falls site…"

– **Jordan River NFH will:**

- Work with the Friends of the Jordan River, Marquette Biological Station, Trout Unlimited and Michigan DNR to monitor the status of the Jordan River watershed and take action as needed to conserve aquatic habitat and water quality (MI).
  "…assisted in the 2007 sea lamprey treatment in the Jordan River watershed by Ludington Biological Station staff…"
- Work with the Friends of the Jordan River to develop a project to monitor water quality and/or sedimentation in the Jordan River (MI).
  "…involved as an advisor in regard to the design of the Sediment Bed Load Project - reviewed the proposal from Michigan State University; the project was at least partially funded in 2007 and implemented with completion scheduled in 2008…"
- Assist the Friends of the Jordan River, Marquette and Ludington Biological Stations to implement a sea lamprey pheromone research project in the Jordan River (MI).
  "…served as board member of the Friends of the Jordan - helped to pursue this effort but the Biological Stations were not positioned to be involved in the project during 2007…"

Aquatic Habitat Conservation and Management

– **Marquette and Ludington Biological Stations will:**
  - Work with Service field stations in Fisheries and Ecological Services, and with our partners, to ensure that fish passage activities effectively resolve the need to pass priority species of native fish while continuing to provide barriers to sea lamprey spawning and nursery areas in Great Lakes tributaries (IL, IN, MI, MN, NY, PA, OH, WI).

    "…worked cooperatively with Fish and Wildlife Service field stations in Fisheries and Ecological Services, and with our partners, to ensure that fish passage activities effectively resolve the need to pass priority species of native fish while continuing to provide barriers to sea lamprey spawning and nursery areas in a number of Great Lakes tributaries including coordination with: Ashland NFWCO on three Lake Superior tributaries with culvert modifications; Michigan DNR, Green Bay NFWCO, and Ashland NFWCO on nine Lake Michigan tributaries where dams are being considered for removal; Michigan DNR and Alpena NFWCO on three Lake Huron tributaries regarding culvert replacement and fish passage projects, including one barrier that is no longer blocking sea lamprey; New York Department of Environmental Conservation, Euclid Watershed Council, Alpena NFWCO, and Ohio DNR on three Lake Erie tributaries where dams are being considered for modification or removal; Nature Conservancy on one Lake Ontario tributary being considered for modification or removal - developed and initiated a plan to inventory/ground-truth the existence and location of de facto dams (dams not built specifically for sea lamprey control but serve that purpose) that may be important to sea lamprey management - during 2007, 553 de facto dam surveys were conducted as part of this initiative…"

– **Pendills Creek and Sullivan Creek NFH's will:**
  - Continue working with the U.S. Forest Service, Michigan Department of Environmental Quality and Michigan DNR to monitor the status of the Videans Creek, Pendills Creek and Sullivan Creek watersheds and take action as needed to conserve aquatic habitat and water quality (MI).

    "..work is in progress - currently waiting for the Forest Service watershed assessment…"
  - Continue working with the Hiawatha National Forest and the Michigan DNR to develop and implement a plan for population control of beaver in the Pendills Creek watershed, to reduce associated impacts to water quality (MI).

    "…initiated an active volunteer trapping program and continue to work with the Forest Service to develop a new MOU protecting both hatchery watersheds…"

Objective - Expand the use of Fisheries program expertise to avoid, minimize, or mitigate impacts of habitat alteration on fish and other aquatic species.

Our Commitment

– **Alpena National Fish and Wildlife Conservation Office will:**
  - Provide technical assistance to Thunder Bay Power and Michigan DNR to achieve compliance with Federal Energy Regulatory Commission (FERC) license on the Thunder Bay River (MI).

    "…continued to serve as Fish and Wildlife Service representatives to the Working Committee and Steering Committee for implementation of terms of the FERC license on the Thunder Bay River - participated in two meetings of the Working Committee and participated in conference call for discussion of an issue before the committee…"
  - Provide technical support to the East Lansing Field Office and the Reynoldsburg Field Office in reviewing permits, licenses, Federal projects and other actions proposed for the Lake Huron and Lake Erie basins (MI, OH).

    "…reviewed and provided comments to the East Lansing Field Office on four applications for permits in Alpena NFWCO's area of responsibility (Lake Huron and Huron-Erie Corridor watersheds)…"

Aquatic Habitat Conservation and Management

-Michigan DNR photo by Tim Cwalinski

Alpena National Fish and Wildlife Conservation Office biologist Susan Wells assisted the Michigan Department of Natural Resources with post construction fish surveys above the Potagannissing Dam fish ladder, which was removed in September, 2006 and replaced with this fish ramp. Areas upstream of this dam historically provided ideal spawning habitat for northern pike.

-USFWS

Carterville National Fish and Wildlife Conservation Office technicians Matt Mangan (left) and Mike Stahl display invasive bighead and silver carps captured during a fishery survey of the Herculaneum reach of the Middle Mississippi River.

-USFWS/Joanne Grady

Fish Passage Program funds will be provided to the Missouri Department of Conservation to replace this low-water crossing on Sequoia Road over the Barren Fork in Miller County. The crossing is within the range of the threatened Niangua darter.

– **Ashland National Fish and Wildlife Conservation Office will:**
  - Provide technical support to the East Lansing Field Office and the Twin Cities Field Office in reviewing permits, licenses, Federal projects and other actions proposed for the Lake Superior Basin (MI, MN, WI).

    "…jointly administered the Coastal Program (Great Lakes) - provided technical assistance in reviewing permits as requested - in 2007 a total of 27 coastal projects were funded…"

– **Carterville National Fish and Wildlife Conservation Office will:**
  - Determine the effect of a Navigation and Ecosystem Sustainability Program habitat restoration project on fish populations in the Herculaneum reach of the Middle Mississippi River (IL, MO).

    "…completed the second year of pre-project surveys of the fish community in the Herculaneum reach of the Middle Mississippi River – will work with the Missouri Department of Conservation to use pre- and post-project data to evaluate the effectiveness of a habitat restoration project completed through the Navigation and Ecosystem Sustainability Program…"
  - As part of a Navigation and Ecosystem Sustainability Program habitat restoration project, collect pre-project information on fish locations below Lock and Dam 22 and Mel Price Lock and Dam to aid in development and placement of fish passage structures through these blockages on the Upper Mississippi River (IL, MO).

    "…participated in planning and preliminary evaluation of fish passage projects at two main-stem locks and dams on the Upper Mississippi River - biologists from this office, with assistance from the Columbia and La Crosse NFWCO's spent five weeks on the Mississippi River sampling the fish communities at Mel Price Lock and Dam and Lock and Dam 22 - the results of this work will aid in the planning of the fish passage projects at these dams…"
  - Determine the effect of a habitat restoration project (either through Navigation and Ecosystem Sustainability Program or Environmental Management Program) on fish populations in the Harlow Island backwater located in the Middle Mississippi River (MO).

    "…completed the third year of pre-project surveys of the fish community in a backwater of the Mississippi River on the Harlow Island Division of the Middle Mississippi River NWR - pre- and post-project monitoring will allow us to evaluate the effectiveness of a future habitat restoration project at Harlow Island completed through the Navigation and Ecosystem Sustainability Program…"

Aquatic Habitat Conservation and Management

– **Columbia National Fish and Wildlife Conservation Office will:**
  - Work with the Service's Ecological Services and NWR programs to monitor and evaluate aquatic habitat restoration efforts in the Illinois, Mississippi and Ohio rivers associated with U.S. Army Corps of Engineers activities (IL, IN, IA, MN, MO, OH, WI).
    "…worked with partners to monitor and evaluate aquatic habitat restoration efforts in the Missouri River…"
  - Implement aquatic habitat restoration project for Niangua darters in the Osage River watershed in Missouri (MO).
    "…completed a low-water crossing replacement project in the Little Niangua River to improve habitat for the threatened Niangua darter…"
  - Complete surveys of low-water crossings within range of threatened Niangua darter to aid in development of watershed level fish passage plan (MO).
    "…worked with MDC to survey low water crossings within the range of the threatened Niangua darter…"
  - Assist the Army Corps of Engineers evaluate fish use of dike structures created in the Missouri River (IA, KS, MO, NE).
    "…monitored fish at modified dike structures in the Lower Missouri River…"

– **Green Bay National Fish and Wildlife Conservation Office will:**
  - Provide technical assistance to the Lower Green Bay/Fox River Natural Resource Damage Assessment for restoration planning and implement aquatic habitat rehabilitation projects (WI).
    "…provided assistance on fisheries priorities for the Fish and Wildlife Service…"
  - Monitor the effectiveness of the fish barrier net at the Ludington Pumped Storage Hydroelectric plant and determine the annual fish damages as mitigation for the operation of the plant (MI).
    "…serves on the Scientific Advisory Team of the Trust and participates in the annual damage calculation and solicitation and recommendation of restoration projects…"
  - Propose and implement aquatic habitat rehabilitation projects through the Great Lakes Fishery Trust (MI).
    "…proposed and implemented aquatic habitat rehabilitation projects through the Great Lakes Fishery Trust…"
  - Provide technical assistance to the Green Bay Field Office to achieve fisheries habitat goals for Federal Energy Regulatory Commission licensed facilities in tributaries to Green Bay (MI, WI).
    "…provided technical assistance regarding FERC dams on the Menominee and Fox rivers of Green Bay and on the Wisconsin River at Prairie du Sac…"
  - Provide technical support to the Green Bay Field Office, East Lansing Field Office and Chicago Field Office in reviewing permits, licenses, Federal projects and other actions proposed for the Lake Michigan basin (IL, IN, MI, WI).
    "…provided technical support to the Green Bay Field Office, East Lansing Field Office and Chicago Field Office in reviewing permits, licenses, Federal projects and other actions proposed for the Lake Michigan basin…"

– **Jordan River National Fish Hatchery will:**
  - Assist in coordination, development and implementation of Fish Passage projects in Northwest Michigan Lake Michigan basin, and in particular the Jordan River watershed (MI).
    "…due to changes in the staffing at Jordan River NFH, this effort was pursued by the new habitat unit located on site at the hatchery…"

– **La Crosse National Fish and Wildlife Conservation Office will:**
  - Provide fish passage technical assistance for the Federal Energy Regulatory Commission re-licensing of the Prairie du Sac dam (WI).
    "…provided fish passage technical assistance for the FERC re-licensing of the Prairie du Sac dam that is leading to the construction of downstream fish passage protection in FY 2008 and the design of other fish passage components and monitoring…"

Aquatic Habitat Conservation and Management

-USFWS/Heidi Keuler

Bill Peterson and Youth Conservation Corps staff from the Necedah National Wildlife Refuge sample the fish populations present in Beaver Creek prior to aquatic habitat improvements. Populations will be sampled after project completion to determine the effectiveness of the improvements.

- Implement aquatic habitat restoration projects for sturgeon in the Red River of the North watershed in Minnesota (IA, WI).

  "…implemented aquatic habitat restoration projects for lake sturgeon in the Red River of the North watershed in Minnesota - Heiburg fish passage has been completed and Christine and Hixton dams are being proposed for fish passage projects…"

– **La Crosse Fish Health Center will:**

- Work with the Service's NWR Program and other fisheries offices to help assess various water habitats on Service lands to address concerns of fish health and species identification (IL, IN, IA, OH, MI, MN, MO, WI).

  "…worked with several agencies during the Goby Roundup; worked on projects with the Illinois Natural History Division, Alpena NFWCO, USGS-Ashland, CORA, Carterville NFWCO, Illinois DNR, Minnesota DNR and the Ontario MNR…"

Objective – Increase the quantity and improve the quality of aquatic and riparian habitat on Service lands.

Our Commitment

– **Alpena National Fish and Wildlife Conservation Office will:**

- Provide technical assistance to Shiawassee and Ottawa NWR's and the Detroit River International Wildlife Refuge to plan, design and implement aquatic habitat restoration projects (MI, OH).

  "…partnered with Ottawa NWR and volunteers to celebrate Earth Day by stabilizing 140 feet of river bank along Crane Creek on the NWR; worked with Shiawassee NWR to plan an assessment, scheduled to be conducted in FY 2008, that will examine fish access to habitat above a recent spillway constructed on the Refuge; met with Michigan DNR and Shiawassee NWR staff to examine data and discuss fish community trends in Thunder Bay, Lake Huron, to assist in planning for cormorant control options on islands associated with Michigan Islands NWR…"

– **Ashland National Fish and Wildlife Conservation Office will:**

- Provide technical assistance to Whittlesey Creek and Rice Lake NWR's to plan, design and implement sport fishing and aquatic habitat restoration projects (MN, WI).

  "…described the current status and abundance of the Whittlesey Creek fish community, and identify and implement strategies to establish a self-sustaining migratory brook trout population; helped stock 20,000 (1.5 inch) spring fingerlings and 50 adult coaster brook into Whittlesey Creek…"

-USFWS/BillMcCoy

Volunteers Chuck Bauer (right) and Ron DeMotte of the Patoka River National Wildlife Refuge participate in a bi-annual river sweep. The goal of the Indiana sponsored program is to remove trash along the lower reaches of the South Fork Patoka River.

Aquatic Habitat Conservation and Management

- **Carterville National Fish and Wildlife Conservation Office will:**
  - Conduct post-project biological monitoring to evaluate fisheries age structure response to the Swan Lake Habitat Rehabilitation and Enhancement Project at Two Rivers NWR (IL).

    "…determined differences in fish population age and size structure to assess fish reproduction and recruitment, before and after completion of a Habitat Restoration and Enhancement Program project - completed the final report for this project and submitted it for review - once the review comments are incorporated into the report, the final draft will be submitted to the U.S. Army Corps of Engineers, St. Louis District…"
- **Columbia National Fish and Wildlife Conservation Office will:**
  - Provide technical assistance to the Big Muddy National Fish & Wildlife Refuge, DeSoto NWR, Mingo NWR and Swan Lake NWR to plan, design and implement aquatic habitat restoration projects (IA, MO).

    "…worked with DeSoto NWR to create rock reefs to increase fisheries habitat in DeSoto Lake…"
- **Green Bay National Fish and Wildlife Conservation Office will:**
  - Provide technical assistance to Seney NWR to plan, design and implement projects to enhance brook trout habitat in the Upper Dregs River (MI).

    "…assistance provided to Seney NWR, when appropriate…"
- **La Crosse National Fish and Wildlife Conservation Office will:**
  - Provide technical assistance to the Upper Mississippi River National Wildlife & Fish Refuge, and Minnesota Valley, Necedah, Horicon and Tamarac NWR's to plan, design and implement aquatic habitat restoration projects (MN, WI).

    "…provided technical assistance to the Upper Mississippi River NW&FR through the Environmental Management Program, on the Minnesota Valley NWR with trout stream restoration, on Necedah NWR with restoring a straightened stream, and on Horicon NWR by advice on past restoration practices…"
- **Iron River NFH will:**
  - Work with the Service's NWR and Ecological Services programs and other partners to manage 1,200 acres of Service land at the Iron River NFH (WI).

    "…worked with our Friends group to expand the use of a system of trails throughout our property - we shared a Youth Conservation Corps crew with the Whittlesey Creek NWR that provided grounds maintenance on the property; developed a policy and guidelines that allow the general public to cut firewood and reduce fuel loading - the Regional Office submitted a categorical exclusion National Environmental Policy Act document and Iron River NFH coordinated with the Green Bay Ecological Services Field Office to remove hazard trees close to Schacte Creek that had potential to damage buildings…"
  - Assist Ashland NFWCO in implementing aquatic habitat evaluation and restoration projects at Whittlesey Creek NWR (WI).

    "…worked cooperatively with the Ashland NFWCO by providing any requested assistance in implementing aquatic habitat evaluation and restoration projects at Whittlesey Creek NWR…"
- **Pendills Creek and Sullivan Creek NFHs will:**
  - Assist, if possible, Green Bay NFWCO in implementing aquatic habitat evaluation and restoration projects at Seney NWR (MI).

    "…unable to provide assistance this year due to lack of personnel…"
- **Neosho NFH will:**
  - Work with the Service's NWR and Ecological Services programs and other partners to manage 244 acres of Service land under management of the Neosho NFH (MO).

    "…worked with the Fish and Wildlife Service's NWR and Ecological Services programs and other partners to manage 244 acres of Fish and Wildlife Service land under management of the Neosho NFH…

Workforce Management

-USFWS

Ann Blankenship (rt.) and Scott Yess (lt.) present a Department of the Interior award to Don Schroeder for 3,000 hours of volunteer time at the La Crosse National Fish and Wildlife Conservation Office and Upper Mississippi River National Wildlife and Fish Refuge.

-USFWS photo by Jennifer Johnson

Joni Vanderflught measures fish collected in a net on the Missouri River during job shadowing at the Columbia National Fish and Wildlife Conservation Office.

-USFWS

Biologist Nick Starzl shows students the art of cleaning rainbow trout tanks as part of *Disability Mentoring Day*.

Goal/Actual Accomplishment for FY 2007

Performance Measures (Fisheries Strategic Plan v 11)

Workforce Management

	Regional Fisheries Goal	Alpena NFWCO Goal	Ashland NFWCO Goal	Carter-ville NFWCO Goal	Columbia NFWCO Goal	Genoa NFH Goal	Green Bay NFWCO Goal	Iron River NFH Goal	Jordan River NFH Goal	La Crosse FHC Goal	La Crosse NFWCO Goal	Neosho NFH Goal	Pendillis Creek NFH Goal	Sea Lamprey Control Goal
Number of volunteer participation hours are supporting Fisheries objectives NFH/FWMA (GPRA)	4000/4689	1150	150	251	2670	994	0	44	2744	42	618	1500	1284	0

Workforce Management

-USFWS

Ladies from the local chapter of Lake Superior's Reel Women Sportswomen's Group volunteered to collect brook trout eggs at the Iron River National Fish Hatchery.

-USFWS

Members of the Friends of the Upper Mississippi Fisheries Services assist Dave Heath from the Wisconsin Department of Natural Resources in finishing a cage that will be used to propagate mussels.

-GLFC by Michael Fodale

Instructors Jim Reynolds (upper left) and Jim Boardman (upper right) conduct measurements of the electrical parameters from a boomshocking boat during National Conservation Training Center sponsored *Principles and Techniques of Electrofishing* course.

Workforce Management Goal: Maintain and support an adequately-sized, strategically positioned workforce with state-of-the-art training, equipment, and technologies in their career fields.

Our primary focus is on recruiting, supporting, and positioning an effective and motivated workforce capable of meeting the expectations of employees and partners in fish and other aquatic resource conservation.

Objective - Staff Fisheries program field stations at levels adequate to effectively meet the Service's goals and objectives in fish and other aquatic resource conservation.

Objective - Provide employees with opportunities to maintain competencies in the expanding knowledge and technologies needed to improve opportunities for professional achievement, advancement, and recognition.

Objective - Provide employees with access to facilities and equipment needed to effectively, efficiently, and safely perform their jobs.

Our Commitment

- Ensure staffing levels are adequate to meet mission critical goals.
- Initiate recommendations from the Workforce Planning Team for the Fish and Wildlife Management Assistance Program.
- Identify core competencies required for our employees and work with the National Conservation Training Center to develop training opportunities for employees to meet competency levels.
- Ensure that supervisors maintain current Individual Development Plans (IDP) for their employees and ensure that employees complete individual developmental activities.
- Identify and implement operational, structural, and geographic changes that will help maximize effectiveness and efficiency at field stations.

"…Alpena NFWCO identified staff deficiencies (Admin Tech); provided training to all station staff in to improve competencies; discussed career goals with all staff and encouraged IDP development; conducted workload reallocation to improve efficiency of station operations…"

"…Ashland NFWCO updated IDP's; supplied training opportunities to all employees; provided skills and equipment necessary to perform work safely; represented the Fish and Wildlife Service at meetings and conferences…"

"…Carterville NFWCO invested in workforce management by providing training opportunities for staff to improve supervisory skills, remain current on safety and constantly expanding science of natural resources management; worked to recruit, support and position an effective and motivated workforce capable of meeting mission goals; invested in new information technology equipment and other infrastructure to maintain and improve station effec-

Workforce Management

-USFWS photo by Wayne Talo

Jordan River National Fish Hatchery volunteer Nathan Skop sample-counts lake trout eggs.

-USFWS

Mark Steingraeber of the La Crosse Fishery Resources Office talks to students from Aquinas Middle School in La Crosse, Wisconsin, at Career Day.

-USFWS

The La Crosse Fish Health Center completed the annual *Introduction to Fish Health Management* short-course, with 17 students in attendance.

tiveness - our objective is to identify and meet training needs, maintain competency with current and expanding science, motivate staff to perform at greatest potential, and provide skills and equipment necessary to perform work safely; staff participated in various training courses, professional society meetings and conferences, and self-development..."

"…Columbia NFWCO employed (at no cost to the Service) at-risk high school students through Columbia's Career Awareness Related Experience (C.A.R.E.) program to mend nets, wash trucks and boats, and aid with fish sampling; an Employee Handbook was finalized to aid new employees entry to the Service and station; standardized performance measures were developed or modified for many standard positions; IDPs are in progress for our employees…"

"…Genoa NFH hired Jenny Walker as entry level biologist and veterinarian-in-training to further Fish and Wildlife Service goals of placing veterinarians in all Fish Health Centers; worked with the Regional National Conservation Training Center liaison to ensure class scheduling and training is adequate and appropriate to maintain and improve staff technical expertise, and leadership and supervisory skills; all IDP's are current and up-to-date…"

"…Green Bay NFWCO ensured that supervisors maintain current IDP's for their employees and ensure that employees complete individual developmental activities; identified and implemented operational, structural and geographic changes that will help maximize effectiveness and efficiency at their station…"

"…Iron River NFH utilized a State of Wisconsin "Experience Works Program", and Bayfield County to gain "no cost to the Fish and Wildlife Service" laborers; budgeted for an intermittent employee to work at the hatchery during fish distribution and the summer season that freed up biologists to meet mission critical assignments; all permanent staff received a minimum of 40 hours of training and several employees went to multiple training courses; all employees have IDP's on file and regular discussions regarding employee development are held; staff participate in regular monthly hatchery calls; participated in Fisheries coordination conference calls and served on the Administrative Workload Committee - assumed procurement responsibility (<$25,000) for the Region 3 Fisheries program; began marking fish two months earlier to ensure all fish met marking criteria; sent a clipping crew to Genoa NFH to meet their marking needs…"

"…Jordan River NFH maintained full staffing as described in regional organizational staffing guidelines - station operations did require over 2,700 hours of volunteer time, as well as over 2,000

Workforce Management

hours of additional intermittent workers/Student Temporary Experience Program (STEP) employee – the majority of these hours were used directly in fish production programs or facility maintenance; worked with regional representatives to formulate future training needs; employee IDP's not completed in FY 2007 - all employees will receive updated IDP's in early 2008; began comprehensive analysis of operational methods and infrastructure needs during 2007 - analysis to be completed during FY 2008…"

"…La Crosse FHC is very active in the STEP, Student Career Experience Program (SCEP) and volunteer programs; initiated recommendations from the Workforce Planning Team for the Fish and Wildlife Management Assistance Program; identified core competencies required for our employees and worked with the National Conservation Training Center to develop training opportunities for employees to meet competency levels; ensured that supervisors maintain current IDP's for their employees and ensure that employees complete individual developmental activities; identified and implemented operational, structural and geographic changes that will help maximize effectiveness and efficiency at field stations…"

"…La Crosse NFWCO updated their IDP's and identified gaps in core competencies and worked toward completing listed activities; fostered our volunteers and Friends group to assist in work activities; and continued functioning as a motivated workforce to accomplish service, program, and station goals…"

"…Neosho NFH maintained training based on IDP's; encouraged participation at meetings as Fish and Wildlife Service representative…"

"…Pendills Creek/Sullivan Creek NFH continues to try and fill our (FTE identified) vacant fish biologist positions as budget dictates…"

"…Marquette and Ludington Biological Stations continued to support career development planning and training for the Sea Lamprey Management Program workforce; a number of staff completed coursework at the National Conservation Training Center during 2007, and additional training was also offered on site during the year; implemented a realignment of top management positions in 2007, with the Field Supervisor position relocated to the Regional Office and Deputy Field Supervisors/Station Supervisors established at Marquette and Ludington Biological Stations - following the realignment, the management team completed a comprehensive review of staffing and organizational structure and developed several recommendations for restructuring…"

-USFWS

Approximately 75 maintenance employees received the latest training information and service updates at the 2007 Midwest Region Maintenance Workshop

List of Acronyms

ANS - Aquatic Nuisance Species or AIS - Aquatic Invasive Species
Commission - Great Lakes Fishery Commission
Consent Decree - U.S. District Court Consent Decree
CORA - Chippewa Ottawa Resource Authority
CORPS - U. S. Army Corps of Engineers
DNR – Department of Natural Resources
ESA – Endangered Species Act
FERC – Federal Energy Regulatory Commission
FHC - Fish Health Center
FONS - Fishery Operational Needs System
GAO - Government Accounting Office
GIS - Geographical Information System
GLFC - Great Lakes Fishery Commission
GLIFWC – Great Lakes Indian Fish and Wildlife Commission
HACCP - Hazard Analysis and Critical Control Point
MDC – Missouri Department of Conservation
MICRA – Mississippi Interstate Cooperative Resource Association
M/V - Motor Vessel
NF&WR - National Fish and Wildlife Refuge
NFH - National Fish Hatchery
NFWCO - National Fish and Wildlife Conservation Office
NRCS - Natural Resource Conservation Service
NRDA – Natural Resources Damage Assessment
NW&FR - National Wildlife and Fish Refuge
NWR – National Wildlife Refuge
NWRS - National Wildlife Refuge System
PIT - Passive Integrated Transponder
Region - Great Lakes-Big Rivers Region
Service - U.S. Fish and Wildlife Service

List of State Acronyms

IA – Iowa
IL – Illinois
IN – Indiana
KS – Kansas
MI – Michigan
MN – Minnesota
MO – Missouri
NE – Nebraska
NY – New York
OH – Ohio
PA – Pennsylvania
SD – South Dakota
WI – Wisconsin

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