

U.S. Fish Wildlife Service
Great Lakes Restoration Initiative Activities
FY2010-FY2012

The U.S. Fish and Wildlife Service (Service) utilizes competitive grant programs in combination with its basinwide field presence and traditional program capacity to implement GLRI-funded on-the-ground projects and to maximize the efficiency of GLRI fund obligation to our partners. Approximately \$150M was allocated to more than 375 projects in FY2010-FY2012 that directly support goals and objectives for: Toxic Substances and Areas of Concern; Invasive Species; Habitat and Wildlife Protection and Restoration; and, Accountability, Education, Monitoring, Evaluation, Communication and Partnerships. Service biologists throughout the Great Lakes Basin are implementing these projects in cooperation with our partners via mechanisms which include grants, cooperative agreements, contracts and existing memoranda of understanding.

Year	GLRI Amount	Type	Project Title	Organization	Project Description	Focus Area	Project Start Date	Project End Date	Affected States	Latitude	Longitude
2010	\$ 504,161	New Project	Remediation and Restoration of Contaminated Sediments	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service (USFWS) will work with state and local partners to identify and eliminate the effects of contaminants on Great Lakes ecosystems. Funded projects will identify and implement habitat enhancement and restoration opportunities to guide remediation. Beneficial Use Impairments (BUIs) addressed through these projects include: 1) Loss of Fish and Wildlife Habitat; 2) Degraded Fish and Wildlife Populations; 3) Degradation of Benthos; and 4) Fish Tumors and Deformities.	1	2/5/10	completed	Multi-State	44.839884	-93.293133
2010	\$ 200,000	New Project	Fish Surveys in the Ashtabula River AOC	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Columbus Ecological Services Office in Ohio will conduct fish tissue and pathology studies in large mouth bass and brown bullhead to establish the status of the Ashtabula River AOC fish and wildlife beneficial use impairments, and evaluate progress toward BUI delisting.	1	2/5/10	completed	Ohio	41.54	-80.47
2010	\$ 440,000	New Project	GLLA Sediment Removal Projects, Habitat Restoration & NRDA	U.S. Fish and Wildlife Service Direct Implementation	U.S. Fish and Wildlife Service (USFWS) environmental contaminant specialists located in Ecological Services field offices throughout the Great Lakes basin states will participate with state and local partners to design sediment removal projects to achieve the best most cost-effective cleanups while preserving and restoring high quality aquatic habitat in Great Lakes Areas of Concern (AOCs).	1	2/5/10	completed	Multi-State	44.839884	-93.273133
2010	\$ 134,089	New Project	Scranton Road Peninsula Integrated Habitat Restoration	U.S. Fish and Wildlife Service Direct Implementation	The project will address the beneficial use impairments within the Cuyahoga River Shipping Channel by creating aquatic, wetland, and riparian habitat and providing public access to the lower Cuyahoga River. This project was created based on the delisting plan for the Cuyahoga River Area of Concern created by the Ohio Environmental Protection Agency and Cuyahoga River RAP to address these impairments.	1	2/5/10	completed	Ohio	41.5497	-81.705322
2010	\$ 55,000	New Project	Restoration of the Common Tern Population in the Detroit River International Wildlife Refuge Using an Adaptive Management Framework	U.S. Fish and Wildlife Service Direct Implementation	Conduct monitoring, research, and management that guides restoration of the common tern (<i>Sterna hirundo</i>) breeding population in the Detroit River and conduct a workshop to convene agencies, universities, and other scientific advisors to develop a management target and monitoring program for common terns in the Detroit River AOC.	1	2/5/10	completed	Michigan	42.269179	-83.100586
2010	\$ 66,750	New Project	Assessment of the Bird or Animal Deformities or Reproductive Problems BUI in Michigan's Great Lakes AOCs	U.S. Fish and Wildlife Service Direct Implementation	This project will determine the status of this impairment in six of MI Areas of Concern and determine gaps in data sets to inform monitoring and restoration needs. It will assess existing data, including conducting a literature review, and determine fish tissue contaminant levels protective of wildlife in consultation with USFWS contaminants specialists. The assessment will determine monitoring and restoration needs for future years.	1	2/5/10	completed	Michigan	43.731414	-83.803711
2010	\$ 2,800,000	New Project	Investigate/Plan Remedy for Grassy I., Detroit R	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service (USFWS) will facilitate the final closure of Grassy Island, a unit of the Detroit River International Wildlife Refuge that is currently owned and operated by the USFWS. Grassy Island is a 72-acre dredge disposal property located in the Detroit River that contains contaminated sediments. USFWS will complete a feasibility study to determine and implement the best closure design scenario.	1	2/5/10	9/30/14	Michigan	42.247835	-83.132172

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2010	\$ 378,959	New Project	Development of Optics to Quantify Organisms in Ballast Water	Great Lakes WATER Institute, University of Wisconsin-Milwaukee	This project funds the development of optical methods to quantify organisms in ballast water.	2	2/5/10	9/30/14	Wisconsin		
										43.017246	-87.903843
2010	\$ 300,000	New Project	Electric Barrier Defensive Removal of Asian Carp	Illinois Department of Natural Resources	The Illinois Department of Natural Resources requests support for a project to employ commercial fishermen in targeted areas downstream of Lockport Pool. This is a sustained program of catch and removal of the Asian Carp from the system in specific locations and to provide propagule suppression against the Electric Barrier system.	2	2/5/10	completed	Illinois		
										41.652393	-87.565842
2010	\$ 673,530	New Project	Ultrasound Technology for Great Lakes Ballast Water Treatment	Montclair State University	Montclair State University will develop ultrasound technology for Great Lakes ballast water treatment.	2	2/5/10	9/30/14	Multi-State		
										40.859817	-74.199214
2010	\$ 776,320	New Project	Freshwater Ballast Treatment: NaOH a Treatment of Promise	National Parks of Lake Superior Foundation	This project will build and trial a shipboard ballast treatment delivery system for sodium hydroxide (NaOH), a biocide which shows promise to meet the unique demands of the Great Lakes freshwater bulk carrier fleet. Land-based scale testing at Great Ships Initiative (GSI) indicates suitability of biocide for full-scale trials. GSI will continue to support, providing efficacy testing of the biocide during the ship trial of this method for slowing or stopping the spread of aquatic invasive species.	2	2/5/10	9/30/14	Multi-State		
										46.548472	-87.427053
2010	\$ 999,372	New Project	Environmental DNA Surveillance - Applied Early Detection	University of Notre Dame	In this project, we will develop and refine environmental DNA (eDNA) technology for use in basin-wide surveillance programs. Using bighead and silver Asian carps as an initial case study, and in partnership with state and federal agencies, we will implement a demonstration surveillance program in high-risk areas in multiple tributaries of multiple Great Lakes. In later years, surveillance efforts will extend to additional species and invasion hotspots (e.g. ports, ballast water discharge areas) resulting from other invasion pathways (e.g. maritime shipping, trade in live organisms). The most important outcome will be early detection of incipient invasions, which will guide rapid	2	2/5/10	9/30/14	Multi-State		
										41.714191	-86.24126
2010	\$ 1,400,000	New Project	Early warning to identify effects of new contaminants	U.S. Fish and Wildlife Service Direct Implementation	USFWS will work with the USGS and state and local partners, to identify new potential contaminants in tributary and nearshore areas before they move into and impact the lakes. This project will include field sampling and laboratory analyses to evaluate toxicity and potential impacts of emerging contaminants on Great Lakes fish and wildlife populations.	1	2/5/10	9/30/14	Multi-State		
										44.839884	-93.283133
2010	\$ 61,685	New Project	SUNY Oswego - Fallsbrook Dam Removal	U.S. Fish and Wildlife Service Direct Implementation	Fallsbrook Dam blocks fish passage along Rice Creek, a tributary to Lake Ontario. The U.S. Fish and Wildlife Service will work with the State University of New York at Oswego to re-establish brook trout, American eel and other native fishes passage to over eight miles of stream habitat in the watershed, and restore ecological function of the stream reach.	4	2/5/10	9/30/14	New York		
										43.4239	-76.540836
2010	\$ 90,211	New Project	Clear Creek Stream Habitat Restoration and Fish Passage Project	U.S. Fish and Wildlife Service Direct Implementation	Stream headcutting and floodplain abandonment has increased streambank erosion, sediment inputs, and deposition in Clear Creek, a tributary to Lake Erie. The U.S. Fish and Wildlife Service will work with partners to use natural channel design approaches to restore habitat and ecological function, and re-establish fish passage above a sheetpile grade control, which currently blocks fish upstream passage to over 6 miles of habitat.	4	2/5/10	9/30/14	New York		
										43.511914	-76.000342
2010	\$ 135,385	New Project	Fish Surveys to ID Priority Watersheds for Brook Trout Habitat Restoration	U.S. Fish and Wildlife Service Direct Implementation	The distribution of brook trout in many New York headwater streams is largely unknown, and therefore limits habitat protection and restoration efforts. The USFWS will work with partners to survey streams to determine presence of brook trout watersheds throughout the Tug Hill plateau, St. Lawrence River, and central New York. A USGS data gap model for brook trout, land-use and forest cover maps, and other tools will be used to prioritize survey sites.	4	2/5/10	9/30/14	New York		
										43.492783	-76.069336

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2010	\$ 96,685	New Project	Salmon River Stream Habitat Restoration to Improve Fish Passage	U.S. Fish and Wildlife Service Direct Implementation	Severe bank erosion and sediment deposition has created braided stream reaches with numerous side channels. The U.S. Fish and Wildlife Service will work with partners to use natural channel design habitat restoration approaches to re-establish a stable meander pattern, dimension, and profile.	4	2/5/10	9/30/14	New York		43.511914	-76.000342
2010	\$ 104,094	New Project	Sandy Creek Stream Habitat Restoration to Improve Fish Passage	U.S. Fish and Wildlife Service Direct Implementation	Significant streambank erosion and sediment deposition has formed a braided stream channel and degraded habitat quality, function, and fish passage in Sandy Creek, a tributary to Lake Ontario. The U.S. Fish and Wildlife Service will work with its partners to implement natural channel design approaches to reduce width-depth ratios, re-establish a thalweg and restore riffle-pool mesohabitats to improve habitat and ecological function.	4	2/5/10	9/30/14	New York		43.710533	-76.17911
2010	\$ 51,522	New Project	Stream Crossing Inventory in the Lake Ontario Basin	U.S. Fish and Wildlife Service Direct Implementation	The project will conduct field assessments of road crossings to inventory barriers, and develop a GIS to prioritize high priority fish passage restoration in Lake Ontario streams for seven freshwater mussel species that are designated as Species of Greatest Conservation Need by New York State.	4	2/5/10	9/30/14	New York		43.249204	-77.849121
2010	\$ 285,714	New Project	Menomonee River Fish Passage	U.S. Fish and Wildlife Service Direct Implementation	This project will enable fish to access historical spawning and rearing habitat from the Milwaukee River Estuary (Wisconsin) to 17-miles of the Menomonee River, 20-miles of its tributaries, and spawning and rearing wetlands habitat. The USFWS will work with partners to restore fish passage within a 1,000-foot concrete-lined reach of the Menomonee River channel by removing the concrete bottom and side channels, and constructing alternating riffles and pools.	4	2/5/10	9/30/14	Wisconsin		43.020463	-87.968559
2010	\$ 100,000	New Project	Status and distribution of coaster brook trout in the Lake Superior Basin	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will work with its partners, including state, Tribal, and other federal agencies, to collect data on brook trout at a subwatershed level. Information will be used to improve existing records of the status and distribution of coaster brook trout in the Lake Superior Basin.	4	2/5/10	9/30/14	Wisconsin		44.528275	-87.882965
2010	\$ 200,000	New Project	Fish Passage at the Frankenmuth Dam	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Fish Passage Program in Alpena, Michigan will work with its partners to develop a rock ramp style fish passage sequence at the site of the Frankenmuth Dam in Michigan's Saginaw Bay Watershed.	4	2/5/10	9/30/14	Michigan		43.47684	-83.71582
2010	\$ 107,729	New Project	Salmon Trout River Watershed Culvert Replacement--Clear Creek at Blind 35, MI	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will replace crossing #6 on Clear Creek, a tributary to the Salmon Trout River in Michigan, to restore fish passage for brook trout and other native species. This project will implement key recommendations of the Salmon Trout River Watershed Management Plan, Lake Superior Lake-wide Management Plan, Fish Community Objectives for Lake Superior, and the Brook Trout Rehabilitation Plan for Lake Superior.	4	2/5/10	completed	Michigan		46.818858	-87.849426
2010	\$ 87,371	New Project	Salmon Trout River Watershed Culvert Replacement--Crossing #21 & #22 Unnamed Trib to STR, MI	U.S. Fish and Wildlife Service Direct Implementation	The project will restore passage and habitat for native brook trout and aquatic organisms in the unnamed tributary to the Main Branch Salmon Trout River and will prevent further degradation of critical habitat for coaster brook trout in the lower Salmon Trout River. The project implements key recommendations of the Salmon Trout River Watershed Management Plan, Lake Superior Lake-wide Management Plan (LaMP), Fish Community Objectives for Lake Superior, and the Brook Trout Rehabilitation Plan for Lake Superior.	4	2/5/10	completed	Michigan		46.818858	-87.849426
2010	\$ 93,086	New Project	Salmon Trout River Watershed Culvert Replacement--Crossings #26 Iron Creek & #27 Unnamed Trib, MI	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will work with partners to restore habitat for native brook trout in the unnamed tributary to the Main Branch Salmon Trout River. Efforts will prevent further degradation of critical habitat for coaster brook trout. This project will implement key recommendations of the Salmon Trout River Watershed Management Plan, Lake Superior Lake-wide Management Plan, Fish Community Objectives for Lake Superior, and the Brook Trout Rehabilitation Plan for Lake Superior.	4	2/5/10	completed	Michigan		46.818858	-87.849426

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2010	\$ 285,714	New Project	High Bank Creek culvert replacement and dam removal (Thornapple R.) in Barry County, MI	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will work with its partners through the National Fish Passage Program to remove barriers created by the Morgan Dam and Lawrence Road culverts in Barry County, Michigan. Removal would reconnect High Bank Creek with its headwaters, tributaries, and Thornapple Lake and create a barrier-free system from Thornapple Lake to Mud Creek to Bristol Lake, a distance of 30.4 miles.	4	2/5/10	9/30/14	Michigan		
										42.55915	-85.354156
2010	\$ 56,057	New Project	St. Joseph River Watershed in Michigan -- Fish Migration Barrier Inventory	U.S. Fish and Wildlife Service Direct Implementation	There are 190 dams and 1000's of culverts in the St. Joseph River watershed (MI) that may be blocking passage of fish and aquatic organisms. The U.S. Fish and Wildlife Service will work with its partners to identify migration barriers that meet conditions for immediate removal or ones requiring further study. A strategic plan will be developed to guide future barrier removals, and an inventory will be completed to identify barriers that are negatively impacting fish and wildlife.	4	2/5/10	completed	Michigan		
										42.401848	-86.283274
2010	\$ 28,571	New Project	AuSable River Fish Passage Barrier Inventory & Assessment, Northern Michigan	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will work with its partners through the National Fish Passage Program in Northern Michigan to systematically inventory every dam in the Au Sable River watershed, and to then use the data collected in an assessment and ranking process to evaluate each fish passage barrier to prioritize their removal.	4	2/5/10	9/30/14	Michigan		
										44.658885	-84.160767
2010	\$ 28,571	New Project	Silver Creek Culvert Replacement on Church Highway (Ocqueoc River Watershed), MI	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Alpena Fish and Wildlife Conservation Office in Michigan will work with its partners through the National Fish Passage Program to replace existing undersized culverts on Silver Creek, a tributary to the Ocqueoc River and Lake Huron. A realigned bottomless or elliptical structure will be installed that will reduce water velocities and make it passable for fish, while maintaining a natural stream bottom.	4	2/5/10	9/30/14	Michigan		
										45.226304	-83.936663
2010	\$ 28,571	New Project	Silver Creek Culvert Replacements on Beach Grove Hwy (Ocqueoc River Watershed), MI	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Alpena Fish and Wildlife Conservation Office will work with partners to replace several existing undersized culverts on the Ocqueoc River watershed (Michigan) with bottomless or elliptical structures that will reduce water velocities and make it passable for fish, especially native brook trout, while maintaining a natural stream bottom.	4	2/5/10	9/30/14	Michigan		
										45.429781	-83.987045
2010	\$ 170,900	New Project	Upper Great Lakes Stream Connectivity and Habitat Initiative	U.S. Fish and Wildlife Service Direct Implementation	This project represents the first two years of a five year initiative, which ultimately will restore connectivity of over 600 miles, and improve habitat in over 5,000 miles of the highest quality streams feeding the upper Great Lakes. Objectives for this phase are: engineering design, permitting, and cost estimates; complete construction at 20 sites; pre-and post-construction monitoring; document project completion and share the project approach with others throughout the Great Lakes basin.	4	2/5/10	9/30/14	Michigan		
										42.764469	-84.505312
2010	\$ 85,714	New Project	Miller Creek Dam Removal (cold-water tributary to the Thunder Bay River) Hillman, MI	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Alpena Fish and Wildlife Conservation Office will work with partners to remove the existing Miller Creek dam, a tributary to Thunder Bay in Lake Huron. They will restore the stream channel and reconnect this cold-water tributary to the mainstream and provide aquatic species access to 12 miles of upstream habitat. This project will restore the natural hydrologic regime and sediment transport within Miller Creek.	4	2/5/10	completed	Michigan		
										45.061639	-83.901043
2010	\$ 103,400	New Project	Completing the Swamp Lakes Mosaic	The Nature Conservancy-MI	The Nature Conservancy was granted \$103,400 in FY2010 for the Completing the Swamp Lakes Wetland project. It will protect 150 acres in one of the best examples of a peat land-forest ecosystem in the Eastern Upper Peninsula of Michigan.	4	2/5/10	9/30/14	Michigan		
										46.602676	-85.414027
2010	\$ 371,400	New Project	Door Peninsula Habitat Protection	The Nature Conservancy-WI	The Nature Conservancy was granted \$371,400 for the Door Peninsula Bird Habitat Protection Project in Wisconsin. It will protect 83 acres in the Door Peninsula located in the Mississippi flyway, and its general north-south orientation enhances its significance as migratory bird stopover habitat for a number of bird groups including waterfowl, shorebirds, raptors and passerines.	4	2/5/10	completed	Wisconsin		
										45.17042	-87.143555

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2010	\$ 497,820	New Project	Roderick Wildlife Reserve Expansion	Western Pennsylvania Conservancy	Acquire 197 acres of habitat (96 acres of wetlands) in Erie County, PA.	4	2/5/10	completed	Pennsylvania		
										42.028894	-80.310059
2010	\$ 145,500	New Project	Chiwaukee Prairie State Natural Area (SNA)	Wisconsin Department of Natural Resources	The Wisconsin Department of Natural Resources was granted \$145,500 for the Chiwaukee State Natural Area project. It will protect 12 acres in one of the Upper Midwest's premier coastal wetland complexes and is the only Wisconsin example of a Great Lakes-influenced coastal wetland composed mostly of tall grass prairie and fen communities.	4	2/5/10	9/30/14	Wisconsin		
										42.49653	-87.813892
2010	\$ 767,000	New Project	U.S. Fish and Wildlife Service LaMP Coordination and Implementation	U.S. Fish and Wildlife Service Direct Implementation	This program supports Fish and Wildlife Service expertise, capacity, and support for the Great Lakes Lakewide Programs in the implementation of Lakewide Management Plans, their associated goals, objectives, and targets for the Great Lakes.	5	2/5/10	9/30/14	Multi-State		
										44.859884	-93.273133
2010	\$ 1,940,000	New Project	Habitat Assessment and Accounting Infrastructure for the Great Lakes	Michigan Tech Research Institute, University of Minnesota	The U.S. Fish and Wildlife Service's National Wetland Inventory program has demonstrated the success of working with partners across the basin to update habitat and wetland maps to target and prioritize sensitive and restorable wetlands across the basin. Addressing the entire landscape and habitat systems as science-driven will benefit net on-the-ground habitat restoration, protection and creation projects in the face of threats from climate change and human activities. U.S.	4	2/5/10	9/30/14	Multi-State		
										45.817315	-84.740295
2010	\$ 10,000	New Project	Partners for Fish and Wildlife - Minnesota	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	2/5/10	9/30/14	Minnesota		
										44.889884	-93.263133
2010	\$ 200,000	New Project	Partners for Fish and Wildlife - New York	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	2/5/10	completed	New York		
										42.666281	-76.190186
2010	\$ 141,019	New Project	Partners for Fish and Wildlife Program - Ohio	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	2/5/10	9/30/14	Ohio		
										41.596959	-83.253021
2010	\$ 46,600	New Project	Partners for Fish & Wildlife Program - Illinois	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	2/5/10	9/30/14	Illinois		
										42.386825	-87.830029
2010	\$ 38,800	New Project	Partners for Fish & Wildlife Program - Indiana	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	2/5/10	9/30/14	Indiana		
										41.610565	-87.064247

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2010	\$ 368,610	New Project	Partners for Fish & Wildlife Program - Michigan	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	2/5/10	9/30/14	Michigan		
										42.769469	-84.498312
2010	\$ 214,252	New Project	Population Trajectory Improvement for At-Risk Freshwater Mussels in the Great Lakes Watershed	Central Michigan University	Central Michigan University will develop host fish testing and propagation facilities for state and federally endangered species freshwater mussels. The work includes species-specific searches of streams and coastal refuges in the Great Lakes watershed for gravid females of these species, host fish testing and propagation to provide brood stock of these species for future management, augmentation at current and at historic sites throughout Michigan.	4	2/5/10	9/30/14	Michigan		
										43.5	-84.7
2010	\$ 80,761	New Project	Conservation Genetics of the Endangered Clubshell and Rayed Bean	Columbus Zoo	Working in Indiana, Michigan, and Ohio, the Columbus Zoo's project will focus on host-fish identification of the rayed bean and an investigation into potentially causative factors for absence of recruitment in the East Fork West Branch St. Joseph River population of clubshell (freshwater mussels).	4	2/5/10	9/30/14	Ohio		
										40	-83
2010	\$ 4,000	New Project	Conservation of the Great Lakes Piping Plover with Educational Materials	Detroit Zoo	The Detroit Zoo will develop a one page brochure to be distributed by piping plover monitors when they interact with the public at nesting locations. The educational brochures will disseminate information to visitors using, and landowners owning plover habitat, so they aware of how their activities may affect the recovery of the piping plover.	4	2/5/10	completed	Michigan		
										42.3	-83
2010	\$ 20,000	New Project	Mist net and AnaBat survey for the Indiana bat in southwestern New York	Environmental Solutions & Innovations, Inc	The U.S. Fish and Wildlife Service Cortland, New York Ecological Services Field Office will conduct mist net surveys for the Indiana bat, a federally endangered species. Populations of the Indiana bat are threatened by compounding factors including wind development and disease (white-nose syndrome). Biologists will use this information to update current knowledge of population size in the Great Lakes region.	4	2/5/10	9/30/14	New York		
										42.508552	-79.024658
2010	\$ 135,668	New Project	The Road to Recovery: Understanding Genetic and Host Parasite Constraints to Mitchell's Satyr Butterfly and Hine's Emerald Dragonfly Recovery	Michigan State University	Michigan State University will complete the rangewide population genetic analysis of Mitchell's satyr butterfly and develop recommendations for appropriate recombination of populations for recovery efforts. Studies will be conducted on typing Wolbachia strains in all current viable Mitchell's satyr populations, and researchers will survey and complete genetic typing of Wolbachia of the federally endangered Hines emerald dragonfly, another imperiled insect found in the Great Lakes Region.	4	2/5/10	completed	Michigan		
										43.5	-84.7
2010	\$ 72,817	New Project	Using Restoration and Management to Recover Pitcher's Thistle and Improve Habitat Conditions for the Great Lakes Population of Piping Plover	Morton Arboretum	Morton Arboretum will help meet recovery goals for the Pitcher's Thistle by increasing the size, area occupied, and viability of two restored populations of Pitcher's Thistle at Illinois Beach State Park and the Indiana Dunes National Lakeshore. The secondary objective is habitat management, which will benefit both Pitcher's Thistle and the Piping Plover by removing invasive plant species that decrease reproductive potential of these species.	4	2/5/10	9/30/14	Illinois		
										42.4	-87.8
2010	\$ 60,264	New Project	Cicero Swamp Wildlife Management Area Eastern Massasauga Habitat Restoration	New York Department of Environmental Conservation	The New York Department of Environmental Conservation will enhance Eastern Massasauga (federal and state protected reptile) habitat within Cicero Swamp by removing over-story vegetation in areas where the species has been known to occur.	4	2/5/10	9/30/14	New York		
										42.084337	-78.490105
2010	\$ 106,036	New Project	Enhancing Implementation of the Eastern Massasauga Species Survival Plan	Northern Illinois University	Northern Illinois University will enhance the Eastern Massasauga Species Survival Plan through acquisition of additional founder animals, analysis of the genetic health and structure of the captive population, and development of a web-based system of intranet institutional collaboration and internet information dissemination	4	2/5/10	completed	Michigan		
										41.9	-86

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2010	\$ 63,440	New Project	Great Lakes Piping Plover Habitat Restoration at Presque Isle State Park	Pennsylvania Game Commission	The Pennsylvania Game Commission will restore 7 acres of habitat critical for the federally endangered piping plover, state endangered common tern, state threatened large St. John's Wort, and other Great Lakes beach/dune specialists at Presque Isle State Park by removing exotic, invasive species from Gull Point Natural Area.	4	2/5/10	completed	Pennsylvania		42.17	-80.1
2010	\$ 138,560	New Project	Bog turtle surveys to re-evaluate historic sites and identify new sites in Cayuga and Wayne Counties of New York State	SUNY Research Foundation	Partners will conduct bog turtle habitat surveys at approximately 130 wetlands in Wayne and Cayuga Counties, New York. Additional sites will also be identified that have suitable bog turtle habitat if time permits. The bog turtle is a federally threatened species.	4	2/5/10	9/30/14	New York		42.649001	-73.750491
2010	\$ 48,000	New Project	Kirtland's Warbler Recovery	U.S. Fish and Wildlife Service Direct Implementation	Protection of nests and reducing threats from nest parasitism (cowbird control). Completion of MOU between Michigan DNR, USFS, and USFWS to conserve species in the future and assure delisting criteria are met.	4	2/5/10	completed	Michigan		46.070372	-85.608215
2010	\$ 730,000	New Project	Implementation of Recovery Actions for Great Lakes Listed Species	U.S. Fish and Wildlife Service Direct Implementation	U.S. Fish and Wildlife Endangered Species biologists located at Ecological Services Field offices throughout the basin will implement and/or coordinate the implementation of high priority recovery actions for Great Lakes priority listed species under the GLRI such as: Piping plove, Pitcher's thistle, Hines Emerald Dragonfly, Copperbelly Watersnake, Lake Erie watersnake, and Eastern Massassauga rattlesnake.	4	2/5/10	completed	Multi-State		42.45	-84.3
2010	\$ 152,762	New Project	Population Estimation and Preliminary Genetic Baseline Assessment for the Hine's Emerald Dragonfly in Coastal Wetlands of the Great Lakes	University of South Dakota	The University of South Dakota will study quantitative estimates for Hines emerald dragonfly populations at 3-4 sites in the western Great Lakes Basin in both Michigan and Wisconsin. This information will provide a baseline for assessing the current status for the species and to evaluate the impact of future changes brought about through management actions and/or environmental changes	4	2/5/10	completed	Minnesota		45.56	-87.97
2010	\$ 171,086	New Project	Improving Habitat and Fish Passage in the Bad River Watershed	Bad River Watershed Association	The Bad River Watershed Association will restore fish passage at four road and stream crossings in cooperation with Iron and Ashland County Land Conservation Districts and local municipalities. The four sites addressed by this project will complement previously restored sites, and collectively provide access for fish to important coldwater spawning, nursery and feeding habitats, and reduce sediment loading into the Bad River.	4	2/5/10	9/30/14	Wisconsin		46.339	-90.401
2010	\$ 192,857	New Project	Avon Creek Restoration	City of Rochester Hills, Michigan	Avon Creek is part of the Clinton River Area of Concern in Michigan, a designated area located just north of Detroit and part of the Lake Huron drainage. The watershed is degraded due to industrial activities and development, resulting in the loss of fish and wildlife habitat, and reductions in fish populations. The City of Rochester Hills will restore natural stream meanders in 825 linear feet of the creek to reduce sedimentation, restore fish habitat, and reduce water temperatures.	4	2/5/10	completed	Michigan		42.665	-83.159
2010	\$ 14,286	New Project	Elias Cove Fish Habitat Native Plantings	City of Trenton, Michigan	The Black Lagoon is a Great Lakes Area of Concern along the Detroit River in the City of Trenton, Michigan. In 2005, sediments contaminated with oil, mercury, lead, zinc and PCBs were removed and portions of the shoreline physically restored. Funds for this project will allow the city to plant aquatic vegetation in the emergent wetland shelf and wet meadow riparian edge around the Cove, providing critically needed spawning and nursery habitat for native fish species in the Detroit River.	4	2/5/10	completed	Michigan		42.11656	-83.19122
2010	\$ 35,714	New Project	Restore Wetlands at Conesus Inlet Fish and Wildlife Management Area	Consensus Lake Association	Conesus Lake Association of New York will restore Wetlands at Conesus Inlet Fish and Wildlife Management Area. The Association will work with the New York State Department of Environmental Conservation to improve these wetlands for pike and other wetland dependent fish and wildlife. Restoration will include replacement of several water control structures to restore the ability to manage the marsh effectively, providing long-term benefits for the native wetland community.	4	2/5/10	completed	New York		42.718894	-77.712479

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2010	\$ 214,286	New Project	Upper Great Lakes Stream Connectivity and Habitat Initiative	Conservation Resource Alliance and Huron Pines	The Conservation Resource Alliance, Huron Pines and its partners will utilize funding for the Upper Great Lakes Stream Connectivity and Habitat Initiative. The project will improve 75 miles of Great Lakes tributaries by restoring fish passage and in-stream habitat; and 5,000 acres of stream-side habitat over the next two years.	4	2/5/10	9/30/14	Michigan		
										44.24717	-83.50983
2010	\$ 228,483	New Project	Great Lakes Coastal Habitat Condition Assessment	Dept. of Interior-U.S. Fish and Wildlife Service MN	The U.S. Fish and Wildlife Service, along with its partners in the Great Lakes Basin Fish Habitat Partnership will compile a Coastal Condition Assessment that will be the basis to assess and forecast condition of coastal habitats. It will link the human disturbance data layers to a coastal classification. Data would include coastal human development and broader scale human disturbance measures. The condition index will be used by restoration programs to further focus our work strategically.	4	2/5/10	9/30/14	Multi-State		
										46.59096	-90.86243
2010	\$ 285,714	New Project	Riparian Habitat Assessment, Protection and Management in Minnesota's Lake Superior Watershed	Minnesota Department of Natural Resources	The Minnesota Department of Natural Resources (MDNR) will inventory riparian areas along Lake Superior tributaries and prioritize sites that, if restored and protected, will promote and ensure angler success and stream habitat quality into the future. Following this two year study, the MDNR will work over the next 25 years with willing landowners to provide angler access and long-term stewardship of riparian habitat on their lands.	4	2/5/10	9/30/14	Minnesota		
										46.78878	-92.0929
2010	\$ 43,688	New Project	Great Lakes Basin Fish Habitat Partnership	Natural Resource Conservation Service	The Natural Resources Conservation Service (NRCS) will purchase development rights through the Farm and Ranchland Protection Program (FRPP) and the Emergency Watershed Protection-Floodplain Easements Program (EWP-FPE) to preserve farmland and restore floodplain function.	4	2/5/10	9/30/14	Wisconsin		
										46.588832	-90.890187
2010	\$ 30,000	New Project	Cassidy Park Fish Habitat and Hyporheic Zone Improvement	Pennsylvania Fish & Boat Commission	The Pennsylvania Fish and Boat Commission, Millcreek Township, and Steelhead Association will implement the Cassidy Park Fish Habitat Improvement project on Walnut Creek. The project will place large anchoring logs strategically into the stream to create fish habitat and provide locations for the growth of aquatic plants and other benthic animals. In addition, the instream structures will serve as a buffer and help lower stream water temperatures, providing important habitat for coolwater fish.	4	2/5/10	completed	Pennsylvania		
										42.05523	-80.14303
2010	\$ 121,429	New Project	Howe-Brandymore Stream Restoration Project	St. Clair County Drain Commissioner	The St. Clair County Drain Commissioner will restore approximately three miles of riverine habitat in McNeil Creek, Michigan, to benefit native warm-water fish species by reconnecting the stream to its floodplain, replacing culverts, and restoring riffle and pool habitat. Up to 54 acres of streambank and riparian habitat will also be restored by planting native trees and shrubs. This effort will serve as a model for restoring other county drains back to their natural pre-channelized conditions.	4	2/5/10	9/30/14	Michigan		
										43.03	-82.47
2010	\$ 55,314	New Project	North Branch Wiscoy Creek Restoration	Wyoming County Soil and Water Conservation District	The Wyoming County (New York) Soil and Water Conservation District will improve habitat for the North Branch of the Wiscoy Creek fishery by restoring pool and riffle habitat within the stream, which will provide cover for aquatic species. Activities include plantings of native vegetation streamside, which will provide much needed shade and buffer. These efforts will provide high-quality coolwater habitat for temperature sensitive species of fish, including trout, dace, and darters.	4	2/5/10	completed	New York		
										42.608804	-78.258449
2010	\$ 50,000	New Project	Sustainable Approach for Wetland Biodiversity-sub 1	Buffalo Niagara Riverkeeper	This project will focus on reducing the nuisance growth of invasive plants and restoring the physical and chemical health of coastal wetlands. The project will manage invasive species, such as Typha and Phragmites, while researching the efficiencies of different harvesting techniques. The project partners will compost the mechanically harvested invasive plants in anaerobic digesters to produce methane fuel and fertilizer. The two project sites will be selected from a group of coastal wetlands in the Michigan Upper Peninsula; which includes Fish Dam, Neebish Island, Sugar Island, and St. River wetlands.	4	2/5/10	9/30/14	Michigan		
										46.3855	-84.2272
2010	\$ 381,168	New Project	Conservation of Native Freshwater Mussel Refuges in Great Lakes Coastal Zones	Central Michigan University	Freshwater mussels (unionids) are the most imperiled animal group in North America as a result of human impacts. Central Michigan University will assess known coastal and nearshore refuges in the lower Great Lakes to describe existing unionid diversity, habitat, and to prioritize areas for conservation. Researchers will examine gene flow and model habitat characteristics to determine key environmental attributes that will help develop management recommendations in coastal refuges.	4	2/5/10	9/30/14	Multi-State		
										43.596306	-84.775314

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2010	\$ 2,600,000	New Project	Building Capacity for Fisheries Management on the Great Lakes: Implementation of Mass Marking Technology	Dept. of Interior-U.S. Fish and Wildlife Service MN	The U.S. Fish and Wildlife Service will implement hatchery infrastructure improvements to support the ability of the Great Lakes Fishery Management Agencies to mark tens of millions of lake trout that are stocked annually into the Great Lakes. This, in turn, will allow for the long term study and monitoring of lake trout populations related to natural reproduction and habitat restorations as well as hatchery stocks in the Great Lakes.	4	2/5/10	completed	Multi-State		
										44.32	-87.52
2010	\$ 589,119	New Project	Shiawassee Flats Wildlife and Fish Habitat Restoration - Michigan	Ducks Unlimited	Ducks Unlimited and partners will restore water level management on approximately 3,700 acres of historical floodplain habitat and increase water quality throughout the watershed which will improve the ecological health of Lake Huron's Saginaw Bay, an Area of Concern. An existing water control structure will be modified and a new water control structure installed to reduce streamflow velocities and erosion of downstream banks and channel in the Shiawassee River and to improve wildlife habitat.	4	2/5/10	9/30/14	Michigan		
										43.291201	-84.103088
2010	\$ 112,500	New Project	Assessing Wetland Change in the Great Lakes	Ducks Unlimited	Ducks Unlimited will build upon existing mapping information of the National Wetland Inventory (NWI) to provide a detailed assessment of wetland change (type and cause) by watershed and by state Bird Conservation Region (BCR) for Illinois, Indiana, Michigan, and Ohio. This information is important for understanding implications of a changing climate on wetland habitat resources.	4	2/5/10	9/30/14	Multi-State		
										42.283405	-83.741913
2010	\$ 630,100	New Project	State and Federal Refuge Protection Buffers in the Southwest	Ducks Unlimited	Ducks Unlimited will bring together the interests of state wildlife agencies, private organizations and federal agencies to permanently protect parcels buffering publically owned state and federal wildlife areas located in the Southwest Lake Erie Region (Michigan, Ohio). In conjunction with ongoing protection and restoration efforts this multi-state project will provide connectivity and high quality habitat to sustain and attract wildlife.	4	2/5/10	9/30/14	Ohio		
										41.618009	-83.222809
2010	\$ 79,865	New Project	Quantifying Genetic, Phenotypic, and Reproductive Differences of Siscowet and Lean Lake Trout Reared in a Controlled Environment	Great Lakes WATER Institute, University of Wisconsin-Milwaukee	The Great Lakes Water Institute of Wisconsin will examine differences in length, weight and fat composition of hatchery lake trout to determine the timing of reproductive ability (fecundity). Stocking of hatchery lake trout continues to be a major management tool in lake trout recovery. This project will assess the possibility of introducing lake trout in deeper habitats in lakes Michigan and Huron, especially with recent changes in the fish communities of Lake Huron.	4	2/5/10	9/30/14	Multi-State		
										43.016195	-87.904358
2010	\$ 230,724	New Project	VHSV: Disease Ecology and an Analysis of the Risks in the Great Lakes Basin	Michigan State University	Viral Hemorrhagic Septicemia Virus (VHSV) was first detected in the Great Lakes Basin in 2005 and has been found in 28 species of fish in the Great Lakes. Researchers at Michigan State University will generate a more complete understanding of VHSV dynamics by intensively studying a system where a major VHSV outbreak has occurred. Field sampling will occur on Budd Lake, MI, where a large VHSV mortality event occurred in 2007. Information will inform future fishery management decisions.	4	2/5/10	9/30/14	Michigan		
										42.774467	-84.505312
2010	\$ 34,755	New Project	Predicting Climate-change Induced Distributional Shifts in Great Lakes Region Reptiles	Northern Illinois University	Northern Illinois University will determine the degree to which reptile distributions in the Great Lakes Region are associated with climatic variables. They will identify the projected future location of climatically suitable areas under existing climate change projection, prioritize species and associated management, research, and policy actions depending on whether distribution is expected to remain largely unchanged, contract or become more highly fragmented, or expand or shift in location.	4	2/5/10	9/30/14	Multi-State		
										41.812267	-88.154297
2010	\$ 2,000,000	New Project	First Phase Removal of the Ballville Dam, Sandusky River Tributary to Lake Erie	Ohio Department of Natural Resources	The Ohio Department of Natural Resources will remove the Ballville Dam in Ohio to restore natural hydrological processes over a 40 mile stretch of the Sandusky River, Lake Erie. The project will open up fish passage to 22 miles of new habitat. After dam removal, restored flow conditions and fish access to new habitat above the dam should improve conditions for the native fish community in the Sandusky River system, especially for walleye, white bass, and the state-threatened greater redhorse.	4	2/5/10	9/30/14	Ohio		
										41.45109	-83.002739
2010	\$ 750,000	New Project	River Care - A Framework for Restoring Stream Connectivity and Habitat in the Upper Great Lakes	River Care	This project represents the first two years of a multi-phase initiative to restore connectivity and improve habitat in over 5,000 miles of the highest quality streams feeding the Great Lakes (eg. Manistee, Black, Maple, Betsie, Pere Marquette, and Jordan rivers). In-stream habitat projects will be implemented at an estimated 20 sites in 7 critical riparian corridors and will restore connectivity of 200 miles and reduce 1,400 tons per year of sediment loading.	4	2/5/10	9/30/14	Michigan		
										44.766237	-85.635681

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2010	\$ 118,276	New Project	Assessment of Lake Sturgeon Restoration Efforts in Green Bay, Lake Michigan	Wisconsin Department of Natural Resources	The Wisconsin Department of Natural Resources will expand assessments of lake sturgeon by examining spawning river fidelity and movement along Green Bay's large west shore tributaries (Cedar, Menominee, Peshtigo, Oconto, and Fox rivers). The project will describe stock structure, measure current spawning adult abundance and examine recent trends. Information will be critical to defining appropriate management actions that will increase Great Lakes populations of lake sturgeon.	4	2/5/10	9/30/14	Wisconsin		44.707706	-87.835693
2010	\$ 1,500,000	New Project	Conservation and Acquisition of Great Lakes Islands	U.S. Fish and Wildlife Service Direct Implementation	This project focuses on the protection of Great Lakes island habitat important to endemic, threatened and endangered species and migratory birds. Island ecosystems are threatened by recreational over-use, increased development and invasive species. This project includes inventory of habitats and land acquisition by the National Wildlife Refuge System. A 143 acre tract (Sugar Island) was purchased on 12/10/10 at a cost of \$500,000. Three additional properties are being appraised for acquisition.	4	2/5/10	completed	Michigan		43.55	-83.33
2010	\$ 99,750	New Project	Joint Venture: Shiawassee Flats Floodplain	Ducks Unlimited Inc.	Through the U.S. Fish and Wildlife Service Great Lakes Joint Venture program, Ducks Unlimited, Inc. will restore hydrology to 141 acre former Flint River floodplain wetland in Saginaw county, Michigan. The area is home to a variety of species that are federally listed or state-listed as threatened or endangered including the Eastern fox snake, the short-eared owl, the Peregrine falcon, least bittern, sturgeon, and river darter.	4	2/5/10	completed	Michigan		43.338794	-84.043828
2010	\$ 432,865	New Project	Joint Ventures: Indian River Lakes Wetland Protection	Ducks Unlimited Inc.	Ducks Unlimited, Inc. was granted \$432,865 for the Indian River Lakes Wetland Protection project. It will protect nearly 600 acres of wetlands and uplands in St. Lawrence and Jefferson counties, New York, which will provide connectivity to existing protected lands, as well as protect 1.75 miles of Oswegatchie River frontage and floodplain grass and scrub.	4	2/5/10	completed	New York		44.152652	-76.280823
2010	\$ 150,013	New Project	Joint Venture: Magee Marsh: Restoring and enhancing wetlands in SW Lake Erie	Ducks Unlimited Inc.	Ducks Unlimited, Inc., (DU) will reduce habitat fragmentation and improve water quality in the Magee Marsh region of Ohio through the restoration of 110 acres of forested and emergent wetlands and enhancement of 282 acres of emergent wetlands. DU will restore or enhance 392 acres of wetlands by restoring the structural integrity of main water-supply levee and installing a water conveyance structures.	4	2/5/10	completed	Ohio		42.243673	-83.729746
2010	\$ 38,800	New Project	Holden Restoration Project	The Nature Conservancy	The Holden Restoration Project will result in up to 80 acres of restored wetland hydrology on the 640-acre TNC-owned Holden tract, which is currently mostly row cropped. The wetland work will be funded by USFWS through this agreement, and will complement 500 acres of reforestation that will be partially funded by NFWF through a separate agreement. This restoration project will provide significant wetland and upland habitat in northeast Indiana and will provide habitat for both State and Federal endangered species, including White Cat's Paw Pearlymussel, Clubshell, Northern riffleshell, Indiana Bat, and Copperbelly Water Snake.	4	2/5/10	9/30/14	Indiana		41.548094	-84.844837
2010	\$ 190,000	New Project	Develop a comprehensive information management framework	The Nature Conservancy-MI	The Nature Conservancy and U.S. Geological Survey, working with a broad network of scientists, natural resource professionals, agency staff, and non-profit colleagues, are in the process of designing and developing a shared Great Lakes information management and delivery system to help support the mission of the Upper Midwest/Great Lakes (UMGL) Landscape Conservation Cooperative (LCC). The LCCs are intended to operationally support the concept of strategic habitat conservation, which is an adaptive management framework focused on informing decisions to help get the right conservation practices to the right places.	4	2/5/10	9/30/14	Michigan		45.10455	-87.63245
2010	\$ 200,000	New Project	Changes in the Extent and Distribution of Wetlands under Potential Emissions Scenarios	U.S. Fish and Wildlife Service Direct Implementation	The project will employ climate projections for the Great Lakes basin to assess potential changes in lake levels and the concomitant change in the extent of coastal wetlands under various emissions scenarios. Imagery from the Coastal Changed Analysis Program (C-CAP) will be used for base-mapping. Projections of wetland extent and distribution under various scenarios over time periods of 25, 50, and 100 years will be made available as a series of maps and/or GIS coverages.	4	2/5/10	9/30/14	Multi-State		42.45	-84.3
2010	\$ 129,950	New Project	Climate Adaptation Recommendations for Site Managers	Wisconsin Department of Natural Resources	The U.S. Fish and Wildlife Service, in cooperation with the Wisconsin Department of Natural Resources, will develop recommendations on altering management practices on lands in response to potential climate changes. Focus will be both mitigation (increase carbon sequestration, reduced emissions, etc.) and adaptation (resilience, resistance, transformation). An assessment will be done assessing the tradeoffs among adaptation strategies, mitigation strategies and ecosystem services.	4	2/5/10	9/30/14	Multi-State		43.04	-89.22

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2010	\$ 126,416	New Project	Down-scaled Climate Data for the UMGL LCC Region	Wisconsin Department of Natural Resources and the University of Wisconsin-Madison	The Wisconsin Initiative on Climate Change (a joint project of Wisconsin Department of Natural Resources and the University of Wisconsin-Madison) will develop down-scaled climate projections for the Great Lakes basin with spatial resolution of 0.1 degrees by 0.1 degrees, and daily temporal resolution. Projections will produce the following outputs useful to fish and wildlife managers directly and are appropriate as inputs to species/habitat models: maximum and minimum temperature, precipitation, and snow characteristics.	4	2/5/10	9/30/14	Wisconsin	44.548275	-87.882965
2010	\$ 100,050	New Project	Identification of Most Climate Vulnerable Terrestrial Species and Natural Communities in the UMGL LCC	Wisconsin Department of Natural Resources, US Geological Survey and University of Wisconsin- Madison	The Wisconsin Department of Natural Resources, U.S. Geological Survey, and University of Wisconsin- Madison will identify a suite of 30 to 50 terrestrial species or natural communities most vulnerable to climate change impacts. Models will assess the impact of climate change and other stressors on the distribution and abundance of priority species.	4	2/5/10	9/30/14	Multi-State	43.04	-89.22
2010	\$ 1,000,000	New Project	Great Lakes Wind Power: Making it Migratory Bird and Bat Friendly	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will identify areas where wind development can be safely done and areas where it is likely to have the most negative impacts on birds or bats. Knowledge gained will be useful in protecting areas important to migrating birds from other habitat impacts. Information will help to identify key areas throughout the Great Lakes that are critical to the many bird and bat species that migrate across and around the Great Lakes.	4	2/5/10	completed	Minnesota	45.844108	-84.572754
2010	\$ 678,252	New Project	Integrated Pest Management for priority species, Early Detection and Rapid Response	U.S. Fish and Wildlife Service Direct Implementation	USFWS will establish a Great Lakes Aquatic Invasive Species Integrated Management Program for priority Great Lakes species to implement rapid response control and management programs. USFWS invasive species specialists will assess the effectiveness of those programs and adapt them as needed. Response, monitoring, and control efforts will be focused on existing and potential Asian carp populations in Illinois and Indiana tributaries to Lake Michigan.	2	2/5/10	9/30/14	Multi-State	44.839884	-93.243133
2010	\$ 400,000	New Project	Fish and Wildlife Service Law Enforcement Activities	Dept. of Interior-U.S. Fish and Wildlife Service MN	The U.S. Fish and Wildlife Service Office of Law Enforcement will prioritize targeting of shipments at Great Lakes ports that may introduce harmful invasive species into the United States.	2	2/5/10	completed	Multi-State	42.01	-87.54
2010	\$ 497,331	New Project	Phragmites Control in Western Lake Erie Coastal Wetlands	The Nature Conservancy-OH	The Nature Conservancy, along with a spectrum of public and private partners, including Winous Point Marsh Conservancy, USFWS-Private Lands, and Michigan DNR, will collaborate to manage invasive Phragmites australis on approximately 2,000 acres of wetlands within the western Lake Erie basin, from the Maumee Bay to Sandusky Bay. A large-scale approach to phragmites treatment is a critical step toward restoring native wetland plant communities, preserving fish and wildlife, increasing access for recreation, and improving water flow and wetland function along western Lake Erie.	2	2/5/10	9/30/14	Multi-State	41.46618	-82.99834
2010	\$ 1,555,235	New Project	A Comprehensive Regional Public Outreach Campaign on AIS	University of Minnesota	The Great Lakes Sea Grant Network (GLSGN), led by Minnesota, proposes a comprehensive outreach initiative targeting 15 pathways aimed at preventing the spread of aquatic invasive species (AIS). Featuring Stop Aquatic Hitchhikers!, I Vab the Aquatic Invader, Habitattitude, AIS-HACCP program, and new Web-based social networking components, we will employ proven and new strategies to protect the Great Lakes.	2	2/5/10	9/30/14	Multi-State	44.975091	-93.23307
2010	\$ 997,364	New Project	Preventing Invasions from Trade in Live Aquatic Organisms	University of Notre Dame	Preventing invasions is the most cost-effective way to reduce impacts from invasive species. Risk assessment offers the opportunity to remove high-risk species from trade before they become established. We will develop a suite of risk assessment tools for non-native aquatic organisms in the Great Lakes Basin, and will apply them to many species currently in trade. This will provide managers and policy-makers with the information required to improve regulations, now and in the future, and will reduce the number of invasions from the organisms in trade pathway.	2	2/5/10	9/30/14	Multi-State	41.704191	-86.24126
2010	\$ 126,000	New Project	21st Century Invasive Species Outreach to Anglers	Wildlife Forever	Outreach and education to boaters, anglers and watercraft users of the Great Lakes on invasive species awareness and prevention.	2	2/5/10	9/30/14	Multi-State	45.0769	-93.316326

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2010	\$ 1,038,000	New Project	Restoration of Lake Trout and Lake Sturgeon in the Great Lakes	U.S. Fish and Wildlife Service Direct Implementation	This project supports the restoration of lake trout and lake sturgeon in the Great Lakes.	4	2/5/10	9/30/14	Multi-State		
										44.849884	-93.283133
2010	\$ 515,000	New Project	Restoration of Lake Trout and Lake Sturgeon Law Enforcement	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service, Office of Law Enforcement will support the pursuit of criminal investigations focused on illegal take of Great Lakes lake trout and lake sturgeon populations.	4	2/5/10	completed	Multi-State		
										44.869884	-93.233133
2010	\$ 100,000	New Project	Lake Sturgeon Restoration Initiative in the Great Lakes: Construct Mobile Rearing Unit	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service (USFWS) will construct a mobile fish propagation trailer to initiate participation in active lake sturgeon restoration in the upper Great Lakes. USFWS hatchery program staff will assemble the trailer in the winter of 2011 for deployment in the spring of 2011 on selected tributaries of Lake Michigan.	4	2/5/10	completed	Multi-State		
										44.879884	-93.243133
2010	\$ 75,000	New Project	Maintain USFWS Midwest Region Aquatic Species Isolation Facility	U.S. Fish and Wildlife Service Direct Implementation	Funding will be used to enhance operation capabilities of the U.S. Fish and Wildlife Service Midwest Region Fish and Aquatic Resource Isolation Facility. The facility collects gametes from wild populations and after a clearance process of three fish health inspections, safely incorporates the progeny into existing captive broodstock populations. Efforts will augment existing captive broodstocks for ongoing Great Lakes fishery restoration programs.	4	2/5/10	completed	Multi-State		
										43.563352	-91.228065
2010	\$ 150,000	New Project	Maintain and enhance lake trout production capabilities at Iron River National Fish Hatchery	U.S. Fish and Wildlife Service Direct Implementation	Great Lakes Restoration Initiative funds will be used to support lake trout restoration in the upper Great Lakes at the U.S. Fish and Wildlife Service Iron River National Fish Hatchery in Michigan. Efforts include the additional production of 38,000 klondike reef strain of lake trout. Enhancements to the lake trout production facility are being made that will increase the production, transport and distribution of fingerlings throughout the upper Great Lakes.	4	2/5/10	completed	Multi-State		
										46.658391	-91.373978
2010	\$ 150,000	New Project	Maintain and enhance lake trout production capabilities at Jordan River NFH.	U.S. Fish and Wildlife Service Direct Implementation	Fish production levels will be greatly expanded at the U.S. Fish and Wildlife Service Jordan River National Fish Hatchery during Fiscal Year 2010. 50,000 additional lake trout yearlings will be stocked in Fiscal Year 2011 from the hatchery to help meet restoration and Consent Decree goals for the Great Lakes. Funding will also modernize fish production technologies at the hatchery which will have long term benefits to the lake trout restoration program into the future.	4	2/5/10	completed	Multi-State		
										45.022825	-84.93084
2010	\$ 50,000	New Project	Determining presence of EEDv and other viruses in lake trout in the Great Lakes	U.S. Fish and Wildlife Service Direct Implementation	A viral disease of lake trout, Epizootic Epitheliotropic Disease (EED) caused large-scale mortalities in Great Lakes regional fish hatcheries in the late 1980's. Recently, the virus has been detected in wild populations of fish and has been attributed to mortalities at one state fish hatchery. The U.S. Fish and Wildlife Service has collected approximately 240 kidney and spleen samples from lake trout in lakes Superior and Michigan in Fiscal Year 2010 which will be screened for the virus.	4	2/5/10	completed	Multi-State		
										43.874618	-91.197767
2010	\$ 150,000	New Project	Maintain and enhance lake trout production capabilities at Pendills Creek NFH	U.S. Fish and Wildlife Service Direct Implementation	U.S. Fish and Wildlife Service Pendills Creek National Fish Hatchery in Michigan will enhance production of lake trout through the rehabilitation of its current infrastructure (raceway building, early rearing building, and water treatment facilities). These efforts will improve rearing conditions and increase the ability of the facility to raise additional quality lake trout yearlings.	4	2/5/10	completed	Multi-State		
										46.448266	-84.82132
2010	\$ 2,062,000	New Project	Hatchery infrastructure improvements and construction	U.S. Fish and Wildlife Service Direct Implementation	Funding will be used for projects at two U.S. Fish and Wildlife Service National Fish Hatcheries. The first will design a new early rearing building and upgrade the water filtration system at Pendills Creek National Fish Hatchery. The second will be to construct an effluent treatment system for the Isolation building at Genoa National Fish Hatchery. Projects will significantly increase production and stocking capabilities for both lake trout and lake sturgeon in the Great Lakes.	4	2/5/10	9/30/14	Multi-State		
										46.448266	-84.82132

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2010	\$ 600,000	New Project	Distribution of hatchery lake trout and completion of fishery assessments using the M/V Spencer F. Baird (Baird)	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Motor Vessel Baird fishery vessel will distribute over 3.9 million hatchery lake trout yearlings and over 200,000 fall fingerlings in the off-shore areas of Lakes Huron and Michigan. The Motor Vessel Baird and crew embarked on 29 stocking voyages over a 71 day season and traveled a total of 2,696 vessel miles. The Motor Vessel Baird will also complete a fall fishery assessment of spawning lake trout at 3 sites on Six Fathom Bank in central Lake Huron.	4	2/5/10	completed	Multi-State		45.648188	-84.472246
2010	\$ 461,000	New Project	Lake Trout and Lake Sturgeon Restoration Activities at Ashland Fish and Wildlife Conservation Office	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Ashland Fish and Wildlife Conservation Office in Ashland, Wisconsin will provide leadership, coordination, and implement on-the-water field activities (habitat and population assessments) to achieve rehabilitation objectives for lake sturgeon and lake trout in Lake Superior.	4	2/5/10	completed	Multi-State		46.597562	-90.883026
2010	\$ 461,000	New Project	Lake Huron Lake Trout and Lake Sturgeon Restoration Activities at the Alpena Fish and Wildlife Conservation Office	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Alpena, MI Fish and Wildlife Conservation Office will conduct lake trout spawning surveys at mid-lake reefs and juvenile survival surveys in two northern Lake Huron management units in Treaty waters, perform lake trout stock assessment modeling analyses, and evaluate progress in meeting goals of lake trout rehabilitation efforts. The office will provide leadership and interagency coordination to guide the future stocking program in Lake Huron.	4	2/5/10	completed	Multi-State		45.067701	-83.432922
2010	\$ 561,000	New Project	Lake Michigan Lake Trout and Lake Sturgeon Restoration Activities at Green Bay Fish and Wildlife Conservation Office	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Green Bay Fish and Wildlife Conservation Office will provide leadership, coordination, and field activities (stocking, habitat and population assessments, habitat restoration and enhancements) to achieve rehabilitation objectives for lake sturgeon and lake trout in Lake Michigan, as defined in fishery management and conservation plans.	4	2/5/10	completed	Multi-State		44.643743	-88.046494
2010	\$ 129,000	New Project	Determination of VHS virus prevalence and geographical distribution in the Lower Great Lakes Basin	U.S. Fish and Wildlife Service Direct Implementation	A new, highly virulent strain of Viral Hemorrhagic Septicemia virus (VHSV) has recently been detected in wild fish in the Great Lakes Basin. Outbreaks have caused massive fish kills in a broad range of freshwater fish species. Investigations through cooperative surveys across the Lower Lakes basin (Lakes Ontario and Erie) from a wide array of species will be coordinated and led by the U.S. Fish and Wildlife Service. Information will assess the risk to cultured and wild fish across the country.	4	2/5/10	completed	Multi-State		43.299197	-77.571716
2010	\$ 134,000	New Project	Increase exotic /emerging fish disease surveillance	U.S. Fish and Wildlife Service Direct Implementation	Recent introductions and isolations of new fish viruses are true threats to both the economy of U.S. aquaculture and to native species. This project, conducted by the U.S. Fish and Wildlife Service, will determine the geographic distribution of aquatic animal pathogens, which will enable state, federal, and tribal managers and policy makers to make scientifically sound management decisions.	4	2/5/10	completed	Multi-State		42.275785	-79.788895
2010	\$ 15,000	New Project	Lake Trout Health Monitoring and Surveillance	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Northeast Region will conduct fish health monitoring and surveillance of lake trout production for recovery in the Great Lakes, and will assure fish produced and released to Lake Erie and Lake Ontario do not carry Great Lakes restricted or emergency fish pathogens.	4	2/5/10	9/30/14	Multi-State		41	-77.31
2010	\$ 93,000	New Project	Lower Great Lakes Lower Trophic Monitoring Program	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Lower Great Lakes Fish and Wildlife Conservation Office will monitor and evaluate key lower trophic variables (phosphorus, chlorophyll a, secchi depth and zooplankton density and biomass) that characterize overall ecosystem change spatially, temporally and by habitat types. Collections will occur at 18 stations in Lake Erie and 12 stations in Lake Ontario from May through October. This project is conducted in partnership with State and Federal agencies and universities.	4	2/5/10	completed	New York		43.032761	-78.811798
2010	\$ 108,000	New Project	Evaluation of Niagara River and Bar Benthic Habitat Using Side Scan Sonar and GIS Modeling	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Lower Great Lakes Office is restoring lake trout and lake sturgeon through substrate classification in the Niagara River. Side scan sonar mapping and GIS techniques, coupled with field validation and underwater video, will be used to evaluate habitat. They will assess 22 miles of habitat in the upper river, 8 miles of habitat in the lower river, and 12 square miles of the Niagara bar. Information will be used to prioritize habitat protection.	4	2/5/10	9/30/14	New York		43.121034	-79.043884

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2010	\$ 240,000	New Project	Lake trout reproduction and monitoring in the Niagara River area: genetic evaluation and movement study	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will evaluate natural reproduction of lake trout to determine if hatchery strains being stocked are contributing to reproduction. This study will tag and monitor lake trout to identify spawning areas in the Niagara River and Niagara Bar, and use genetic difference between hatchery strains to evaluate natural reproduction to identify the source (hatchery to strain or wild) of the natural reproduction.	4	2/5/10	completed	New York		
										43.263456	-79.06517
2010	\$ 120,000	New Project	Lake Sturgeon Assessment in the Niagara River	U.S. Fish and Wildlife Service Direct Implementation	This project will assess the status of lake sturgeon populations in the Niagara River and Niagara Bar areas. Lake sturgeon will be captured, aged, and tagged (using PIT tags and radio transmitters). Mark-recapture analysis will be used to estimate abundance, survival and developing habitat preference models. This is a collaborative project between the U.S. Fish and Wildlife Service Lower Great Lakes Fish & Wildlife Conservation Office and the Northeast Fishery Center.	4	2/5/10	completed	New York		
										43.2432	-79.0522
2010	\$ 47,000	New Project	Characterization of the Niagara River larval fish community	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Lower Great Lakes Fish and Wildlife Conservation Office will sample juvenile and larval fish using a variety of methods in several habitat types (wetlands, backwater and open flow areas) in the Niagara River from May-September 2011. Sampling methods include drift nets, ichthyoplankton nets, light traps, minnow traps, trawling and larval seines. Species diversity information will help guide management decisions on the Niagara River.	4	2/5/10	9/30/14	New York		
										43.072901	-79.034271
2010	\$ 65,000	New Project	Identification of lake sturgeon spawning habitat in the lower Niagara River	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Lower Great Lakes Fish and Wildlife Conservation Office will radio tag adult lake sturgeon for approximately one year to identify habitat use. These data will be used in conjunction with substrate mapping data to identify spawning habitat and prioritize management actions.	4	2/5/10	9/30/14	New York		
										43.203174	-79.050751
2010	\$ 151,000	New Project	Comparative Energetics of Lake Trout Morphotypes	U.S. Fish and Wildlife Service Direct Implementation	Different morphotypes (lean, humper, siscowet) of lake trout inhabit the Great Lakes and a bioenergetics model has been developed and validated for the lean morphotype. It is uncertain if the current bioenergetics model can be used in applications for other morphotypes. In collaboration with The Pennsylvania State University, the U.S. Fish and Wildlife Service will develop and compare bioenergetics models for the various lake trout morphotypes.	4	2/5/10	completed	Pennsylvania		
										41.004128	-77.534423
2010	\$ 267,000	New Project	Use of Coded Wire Tags to monitor and evaluate lake trout restoration in the Lower Great Lakes.	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will tag every hatchery fish lot (40,000 fish/lot) with a unique ID that will enable biologist to accurately identify age, strain and stocking location of the fish. This will enable biologists to evaluate stocking practices, and identify environmental factors affecting survival of reared fish. Management agencies can then adjust fish culture and stocking practices to maximize survival of stocked lake trout and reach many of the restoration plan objectives.	4	2/5/10	completed	Pennsylvania		
										43.09	-78.24
2010	\$ 767,000	New Project	U.S. Fish and Wildlife Service LaMP Coordination and Implementation	U.S. Fish and Wildlife Service Direct Implementation	This program supports Fish and Wildlife Service expertise, capacity, and support for the Great Lakes Lakewide Programs in the implementation of Lakewide Management Plans, their associated goals, objectives, and targets for the Great Lakes.	5	2/5/10	completed	Multi-State		
										44.859884	-93.273133
2010	\$ 1,000,000	New Project	Wisconsin Glacial Habitat Restoration Area Phase V	Wisconsin Department of Natural Resources	The Glacial Habitat Restoration Area project is a landscape-scale approach to habitat management that incorporates a patchwork of wetlands and grasslands with cropland. The result is to create habitat conditions that are more favorable for self-sustaining wildlife populations in southern Wisconsin. The goal of the partners involved in the GHRA program is to reverse wetland loss and degradation and increase the populations of wetland and grassland dependent species such as LeConte's, Henslow's and grasshopper sparrow	4	2/5/10	9/30/14	Wisconsin		
										44.01	-88.32
2010	\$ 8,515,339	New Project	Asian Carp Control Strategy Framework Support (Illinois)	Illinois Department of Natural Resources	The State of Illinois will implement priority Great Lakes actions identified in the Illinois State Comprehensive Management Plan for Aquatic Nuisance Species. Activities in FY2010 will be focused on Asian carp.	2	2/5/10	9/30/14	Illinois		
										41.722131	-87.978516

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2010	\$ 1,432,000	New Project	Implementation of Indiana ANS Management Plan	Indiana Department of Natural Resources	The Indiana Department of Natural Resources will implement plant control and eradication projects with emphasis on newly invading plants, consistent with the Indiana Aquatic Invasive Species Management Plan. Early detection and rapid response projects will primarily focus on Asian carp issues and preventing them from reaching the Great Lakes watershed. Outreach and education will focus on preventing the spread of species.	2	2/5/10	completed	Indiana		
										41.52503	-86.160278
2010	\$ 792,000	New Project	Implementing Michigan's Comprehensive State Management Plan for Non-indigenous Aquatic Nuisance Species	Michigan Department of Environmental Quality	In the first year of the Aquatic Invasive Species (AIS) program, Michigan will establish a more formal, cohesive AIS program, update the state management plan, and implement selected top priority actions in the plan. Funding will be used primarily to support state staff to build program capacity. In subsequent years, a portion of the funds will be used for projects for which competitive funding from the other line items in the GLRI would not be appropriate.	2	2/5/10	9/30/14	Michigan		
										42.73264	-84.560008
2010	\$ 792,000	New Project	Establishment of the Minnesota State Aquatic Nuisance Species Management Plan	Minnesota Department of Natural Resources	The Nonindigenous Aquatic Nuisance Prevention and Control Act, as amended, authorized Federal Support, via U.S. Fish and Wildlife Service, for State and Interstate Aquatic Nuisance Species Management Plans. The State of Minnesota will complete and begin implementation of a state plan for invasive species.	2	2/5/10	completed	Minnesota		
										44.86	-93.253133
2010	\$ 1,043,866	New Project	Implementation of the New York State Aquatic Nuisance Species Management Plan	New York State Dept. of Environmental Conservation	This project will implement, in coordination with Canadian partners, priority Great Lakes actions included in the State of New York's Nonindigenous Aquatic Species Comprehensive Management Plan.	2	2/5/10	9/30/14	New York		
										42.55	-78.48
2010	\$ 792,000	New Project	GLRI support for AIS SMP	Ohio Department of Natural Resources	The state of Ohio will implement priorities for early detection, monitoring, and prevention listed in its Aquatic Nuisance Species (ANS) State Management Plan. The environmental attributes of Lake Erie are ideal for many invading species, and, Ohio will focus ANS efforts on species such as zebra mussels, round goby, and Asian carp.	2	2/5/10	9/30/14	Ohio		
										41.458021	-82.713296
2010	\$ 792,000	New Project	Implementation of the Pennsylvania Aquatic Nuisance Species Management Plan	Pennsylvania Fish & Boat Commission	The State of Pennsylvania will implement priority Great Lakes actions identified in the Commonwealth of Pennsylvania Invasive Species Council Aquatic Invasive Species Management Plan.	2	2/5/10	9/30/14	Pennsylvania		
										42.126747	-80.117798
2010	\$ 792,000	New Project	Implementation of the Wisconsin State Aquatic Nuisance Species Management Plan	Wisconsin Department of Natural Resources	The State of Wisconsin will implement priority Great Lakes actions identified in Wisconsin's Comprehensive Management Plan to Prevent Further Introductions and Control Existing Populations of Aquatic Invasive Species.	2	2/5/10	9/30/14	Wisconsin		
										44.538275	-87.882965
2010	\$ 1,000,000	New Project	Kelleys Island Preserve - Protecting Critical Habitat	Chagrin River Land Conservancy	Preservation of 130 acres of globally imperiled & rare habitat on Kelleys Island in Ohio through fee simple acquisition of 77 acres & conservation easement donations on an additional 53 acres.	4	2/5/10	completed	Ohio		
										41.6023	-82.7143
2010	\$ 683,823	New Project	Arcadia Marsh/Bowens Creek Restoration and Fish Passage (MI)	Ducks Unlimited, Inc.	Restore 10 miles of fish passage, restore one mile of channelized stream, restore 75 acres of coastal marsh, protect 128 acres of coastal marsh. Eleven miles of stream and fish habitat restoration.	4	2/5/10	9/30/14	Michigan		
										44.489297	-86.227449

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2010	\$ 873,941	New Project	Chiwaukee Illinois Beach Lake Plain Restoration Project	Lake County Forest Preserve District	8 partners will control invasive plants across 509 acres and restore hydrology on 1889 linear feet of swales and waterways. Benefits include restored coastal habitat, reconnection of wetlands, improved hydrology.	4	2/5/10	9/30/14	Illinois; Wisconsin	42.40115	-87.865906
2010	\$ 100,000	New Project	Early Detection and Treatment of Great Lakes Phragmites	Michigan State University	Take a regional approach to assess, prioritize, and build long-term capacity to detect and treat non-native phragmites before widespread establishment.	4	2/5/10	9/30/14	Michigan	45.506347	-83.803711
2010	\$ 1,500,000	New Project	Clearing a Path: Revitalizing Lake Michigan's Sturgeon	River Alliance of Wisconsin	Constructing a fish bypass around two dams on the Menominee River. Effectively removing two barriers to downstream sturgeon migration; improving lake sturgeon population growth in Lake Michigan.	4	2/5/10	9/30/14	Michigan; Wisconsin	45.105047	-87.630215
2010	\$ 237,967	New Project	Holden Property Restoration, Northeast Indiana	The Nature Conservancy	The project will restore 80 acres of wetlands, and reforest ~500 acres of agricultural ground. This connects over 1500 acres of TNC restored wetland and forests-one of the largest blocks left in Northeast Indiana.	4	2/5/10	9/30/14	Indiana	41.615442	-84.858398
2010	\$ 748,188	New Project	Controlling Invasive Plants throughout Eastern Lake Michigan	The Nature Conservancy	The proposal expands an ongoing multi-partner program coordinating surveys, eradication, and monitoring for seven major invasive plants threatening dunes along the full eastern Lake Michigan coast.	4	2/5/10	9/30/14	Michigan	43.248704	-86.334343
2010	\$ 150,000	New Project	Rapid Response Invasive Plant Team for Upper Peninsula (MI)	Upper Peninsula Resource Conservation and Development Council	The Upper Peninsula Resource Conservation and Development Council will work with partners to establish an area-wide network for the purpose of identification, monitoring and managing invasive plants.	4	2/5/10	completed	Michigan	46.511877	-87.423706
2010	\$ 625,791	New Project	Upper Manistee Riparian Corridor Restoration Project	Conservation Resource Alliance	This project will replace a degraded road crossing at Mecum Rd., and restore the natural flow and condition of two rivers on the Flowing Well property. This property was recently acquired by the state of Michigan and all habitat improvements will be protected and managed by the state in perpetuity. In stream improvements will include the reconnection of 31 miles of upstream fish passage, an increase of native brook trout populations, restoration of nutrient and sediment transport and the restoration of 20 downstream miles of natural flow regimes on a Wild and Scenic Natural River.	4	2/5/10	9/30/14	Michigan	44.694598	-84.999558
2010	\$ 66,650	New Project	Bay Mills Indian Community assessment and mangement of invasive plant species	Bay Mills Indian Community	The Bay Mills Indian Community recognizes the importance of having functioning systems to support natural flow of water, native fish and wildlife, and a healthy tribal community. With that in mind the Tribe is worried about the threat that terrestrial and aquatic invasive species have and will have on the natural functioning of the lands they inhabit and use. We are requesting funding from the Bureau of Indian Affairs under their Great Lakes Restoration Initiative to hire a person for a term of two years to: 1.Complete an assessment of Tribal Land for invasive species 2.Develop a management plan that includes species present on the reservation, those quickly	2	2/5/10	completed	Michigan	46.432178	-84.531555
2011	\$ 480,000	New Project	Ottawa National Wildlife Refuge: Creating Jobs to Help Restore Lake Erie	U.S. Fish and Wildlife Service Direct Implementation	The Ottawa National Wildlife Refuge was awarded funding by EPA to hire 30 temporary seasonal employees. New staff will help with on-the-ground habitat restoration and monitoring.	4	6/10/11	9/30/13	Ohio	43.17	-83.12

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2011	\$ 37,910	Increase	Avian Reproductive Impairment	U.S. Fish and Wildlife Service Direct Implementation	Many studies have been conducted on varying avian species present in the AOC (great blue herons, black crowned night herons, herring gulls, ring billed gulls, barn swallows, nesting waterfowl, migrating waterfowl, green herons, wintering waterfowl [primarily lesser scaup] and peregrine falcons). However, the studies were not fully completed nor tailored to the specific monitoring and delisting of the AOC. This project will utilize information from the previous efforts and develop for determining the status of the BUI.	1	6/10/11	4/30/15	Indiana		41.704703	-87.547989
2011	\$ 45,076	New Project	Degradation of Benthos	U.S. Fish and Wildlife Service Direct Implementation	This BUI is the key to recovering the Grand Calumet River / Indiana Harbor Canal - it is a surrogate for all of the other BUIs combined. This project will prepare a white paper documenting and explaining this position so that it might assist Indiana and the US EPA into potentially simplifying monitoring schemes for delisting BUIs. This could provide a cost and time savings for the GCR/IHC, but could perhaps be beneficial to monitoring and delisting efforts throughout the Great Lakes.	1	6/10/11	4/30/15	Indiana		41.689066	-87.552795
2011	\$ 10,000	New Project	Restoration Scoping for Pending GCR Proposed Project Areas	U.S. Fish and Wildlife Service Direct Implementation	Participate with Indiana and EPA GLLA efforts for remediation projects on several miles of the Grand Calumet River. Restoration of the stream channel and adjacent wetlands will likely be the most significant GLLA project undertaken in the GCR/IHC to date. It has the potential to take upwards of \$150 million to address this area, not including how to implement remediation and restore the adjacent dune and swale ecosystem, including several nature preserves.	1	6/10/11	4/30/15	Indiana		41.689066	-87.553482
2011	\$ 27,589	New Project	West Branch GCR Restoration Evaluation	U.S. Fish and Wildlife Service Direct Implementation	There are three ongoing GLLA projects in the West Branch Grand Calumet River and they are in need of continual attention. This project will sample a reach of the West Branch that was dredged and restored last year to determine how the recovery is proceeding. This would involve collecting benthic macroinvertebrates and fish community assessment, and preparing a report.	1	6/10/11	4/30/15	Indiana		41.70701	-87.552109
2011	\$ 68,715	Increase	Assessment of Population, Reproductive, and Health Impairments in Colonial Waterbirds Breeding in Michigan's Areas of Concern	U.S. Fish and Wildlife Service Direct Implementation	Continued monitoring of fish-eating birds is important for assessing the potential effects of contaminants of emerging concern found in Great Lakes wildlife water, and (or) sediments. This project will evaluate associations between persistent organic pollutants and reproductive, developmental, and population-level problems in fish eating birds such as gulls, terns, herons and cormorants. The impacts of these chemicals on fish-eating birds were important considerations in the listing of beneficial use impairments for wildlife populations and reproduction/deformities at many Great Lakes AOCs.	1	6/10/11	4/30/15	Michigan		41.906621	-83.350868
2011	\$ 200,808	New Project	Restoring River Connectivity: Evaluating Fish as Vectors of Contaminants in the Saginaw River/Bay	U.S. Fish and Wildlife Service Direct Implementation	Work is underway to replace a dam located on the Cass River in Frankenmuth, MI with a rock ramp to restore fish passage to 73 miles of upstream river habitat. Prior to dam removal, this project will evaluate the level of contaminants present in fish species above and below the dam to determine the impact reestablishment of a potamodromous fishery will have in the reconnected river section above the dam. Contaminant concentrations in fish species below the dam will be used to determine the potential adverse effects to fish-eating birds (i.e. bald eagles) and mammals (i.e. mink) upstream of the dam.	1	6/10/11	4/30/15	Michigan		43.842451	-83.688354
2011	\$ 35,715	Increase	Update the Conservation and Recreation Lands (CARL) Database and Assess Indicator Species in the Saginaw River/Bay Area of Concern to Support Delisting Activities	U.S. Fish and Wildlife Service Direct Implementation	This project will update the CARL database to include current information on additional wetlands that have been protected and information on acquisition data; can be used to determine whether BUI removal goals have been met or identify the acreage of remaining wetlands needed for conservation.	1	6/10/11	4/30/15	Michigan		43.864238	-83.696594
2011	\$ 309,000	New Project	21st Ave. West Complex	U.S. Fish and Wildlife Service Direct Implementation	This project will guide implementation of both remediation and restoration actions in an area of the St. Louis River Estuary to advance the goals of the Lower St. Louis River Habitat Plan and to address fish and wildlife population and habitat related BUIs identified for this Great Lakes AOC. The project will develop specific plans and actions for the habitat restoration component of the proposed project area referred to as the 21st Avenue West Complex. Implementation of this project facilitates progress toward removal five BUIs to help advance the St. Louis River AOC toward recovery and delisting.	1	6/10/11	4/30/15	Minnesota		46.743331	-92.128344
2011	\$ 81,200	New Project	Incidence Rates of Fish Tumors and Deformities:	U.S. Fish and Wildlife Service Direct Implementation	This project gathers data necessary to evaluate the status of the Fish Tumors and Deformities BUI in the St. Louis River AOC. The rate of incidence of tumors and deformities across the AOC is unknown; these data are critical to determine whether or not this BUI can be removed. This AOC partnership investigation is proposed to be completed in close coordination and collaboration with the Service on-going Contaminants of Emerging Concern investigation in the AOC to realize significant cost-savings.	1	6/10/11	4/30/15	Minnesota		46.74386	-92.126713

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2011	\$ 34,088	Increase	Fish Tumors/Deformities, Sediment Remediation, Habitat Restoration	U.S. Fish and Wildlife Service Direct Implementation	FWS New York Field Office (NYFO) will continue coordination with the United States and Canadian Niagara River AOC Remedial Action Committees (RACs) to conduct the second year of field sampling related to the assessment of the status of the Fish Tumors and Deformities BUI. The NYFO will provide technical assistance to the Rochester Remedial Action Plan (RAP) Oversight Committee in developing a habitat restoration plan.	1	6/10/11	4/30/15	New York		
										43.070894	-79.030151
2011	\$ 114,132	New Project	A Multifaceted Urban Stream Restoration Project for the Ottawa River	U.S. Fish and Wildlife Service Direct Implementation	This project will restore, enhance and create 1,900 feet of a contiguous habitat along the Ottawa River located on the main campus of the University of Toledo (UT), within the City of Toledo between RMs 10.8 and 11.2. Service funds will more than double current stream restoration efforts (900 feet) to address the critical issues of aquatic habitat loss and stream bank restoration and stabilization - that have been identified as significant environmental concerns for the river.	1	6/10/11	4/30/15	Ohio		
										41.738528	-83.441162
2011	\$ 339,900	New Project	Disposal of Legacy Steel Mill Contaminants and Restoration of Riparian Habitat in the Black River AOC	U.S. Fish and Wildlife Service Direct Implementation	This project - Phase I - will remediate and restore riparian habitat in two acres along the Black River between River Mile (RM) 3.6 and 3.8. by removing and disposing of an abandoned bioremediation system.	1	6/10/11	4/30/15	Ohio		
										41.462411	-82.164345
2011	\$ 54,361	New Project	Support for Eliminating Beneficial Use Impairments in Four AOCs	U.S. Fish and Wildlife Service Direct Implementation	Five Areas of Concern (AOCs) are located within Wisconsin; Sheboygan, Lower Green Bay/Fox River, Milwaukee Estuary, Menominee River, and the St. Louis River Estuary. The AOC Technical Advisory Committees are in the process of developing specific strategies and actions necessary to remove the Beneficial Use Impairments (BUIs) and advance the AOCs towards delisting. Funding support from The Great Lakes Restoration Initiative (GLRI) will specifically aid with delisting efforts for four of the five AOCs in Wisconsin.	1	6/10/11	4/30/15	Wisconsin		
										43.45	-87.42
2011	\$ 270,012	New Project	Freshwater Ballast Treatment: NaOH a Treatment of Promise Project Extension	National Parks of Lake Superior Foundation	This project contributes to a stepwise process toward the installation of a permanent shipboard ballast treatment delivery systems to prevent release of invasive species in the Great Lakes while meeting the unique demands of the Great Lakes freshwater bulk carrier fleet (Lakers). The project will design and test a neutralization process using vessel engine emissions to reduce reagent costs. Extensive work has led to this final stage of development for NaOH treatment of ballast water.	2	6/10/11	4/30/15	Multi-State		
										46.730448	-92.083282
2011	\$ 399,200	Increase	Fish and Wildlife Service Law Enforcement Activities	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Office of Law Enforcement will prioritize targeting of shipments at Great Lakes ports that may introduce harmful invasive species into the United States. Will work with state conservation agencies to enforce laws that restrict the interstate movement of invasive species.	2	6/10/11	4/30/15	Multi-State		
										42.01	-87.54
2011	\$ 98,686	Increase	Risk Assessment Program, USFWS	U.S. Fish and Wildlife Service Direct Implementation	This project will continue an aquatic invasive species risk assessment program to develop and implement a rapid screening process to assess the risk of establishment and significant, negative impacts of species: 1) imported and traded within the Great Lakes Basin and 2) That may benefit from Great Lakes habitat restoration and enhancement under the Great Lakes Restoration Initiative (As requested by other Federal, and Regional [e.g., Great Lakes Fishery Commission], State, Tribal, and local governments, industries, and nongovernmental organizations).	2	6/10/11	completed	New York		
										43.034015	-78.808022
2011	\$ 4,480,168	Increase	Asian Carp Framework Projects and Action Items	U.S. Fish and Wildlife Service Direct Implementation	These funds supported our regional efforts to cover many aspects of asian carp monitoring. It included the supporting of current sampling efforts and building infrastructure for eDNA testing, rotenone purchase and storage, participation in rapid response events, planning for sampling and monitoring of juveniles and adults, and hotspot monitoring within the great lakes related to potential inter-basin connectivity.	2	6/10/11	4/30/15	Multi-State		
										41.963575	-87.555542
2011	\$ 1,584,370	Increase	Early Warning Program to Detect and Identify Contaminants of Emerging Concern-OH	U.S. Fish and Wildlife Service Direct Implementation	USFWS environmental contaminants (EC) specialists state FWS field offices will collect water, sediment, and fish at key locations across the basin. Laboratory and field studies will measure concentrations of contaminants not currently or poorly regulated, with expanded or altered distribution, or that have been recently detected. These data will be used to evaluate effects and sources, identify pathways, and recommend controls or regulations that will provide protection for Service trust resources in the Great Lakes and its tributaries.	1	6/10/11	4/30/15	Multi-State		
										44.856242	-93.354092

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2011	\$ 12,430	Increase	Early Warning Program to Detect and Identify Contaminants of Emerging Concern-OH	U.S. Fish and Wildlife Service Direct Implementation	Service environmental contaminants (EC) specialists located in the Columbus Ohio Ecological Services Office in cooperation with the Midwest Regional Office, U.S. Geological Survey, and other state and local agencies will collect water, sediment, and fish at key locations suspected of having high concentration levels of contaminants of emerging concern due to use history and high potential for exposure of fish and wildlife to contaminants. Samples will be analyzed for a subset of the full list of contaminants of emerging concern	1	6/10/11	4/30/15	Ohio		
										41.947234	-80.864868
2011	\$ 250,000	New Project	Upper St. Clair River Shoreline Habitat Restoration Project	Community Foundation of St. Clair County	Restore up to 750 lineal feet of shoreline and create up to 37,500 sq. feet of restored shoreline habitat.	4	6/10/11	4/30/15	Michigan		
										42.962649	-82.424412
2011	\$ 74,041	Increase	Recovery implementation for Pitcher's thistle and Great Lakes Piping Plover	Morton Arboretum	Restoration, habitat management and monitoring for the federally listed Pitcher's thistle and Piping plover.	4	6/10/11	4/30/15	Illinois		
										42.4	-87.8
2011	\$ 214,285	New Project	Fish Passage Improvements in the Lower St. Joseph River Watershed, Berrien County, MI	U.S. Fish and Wildlife Service Direct Implementation	Indigenous freshwater fish populations in the St. Joseph River system are negatively affected by obstructions to fish passage. Natural movements of fish throughout the watershed are restricted or eliminated due to approximately 190 dams and an unknown number of impassable culverts. The overall goal of this project is to improve fish passage in the Lower St. Joseph River Watershed.	4	6/10/11	4/30/15	Michigan		
										41.858215	-86.363182
2011	\$ 105,000	New Project	Replace Culvert on Osborn-Cobmoosa Creek and Baseline Road (White River) in Oceana County, MI	U.S. Fish and Wildlife Service Direct Implementation	The objective of this project is to create a partnership between US Fish & Wildlife Service, USDA Forest Service Huron-Manistee National Forest (HMNF), and Oceana County Road Commission to restore fish passage to seven miles of stream and 22 acres of lake habitat in the Osborn Creek/Cobmoosa Lake drainage.	4	6/10/11	completed	Michigan		
										43.642722	-86.182165
2011	\$ 37,028	New Project	Lower Grand River Watershed in Michigan - Fish Migration Barrier Inventory	U.S. Fish and Wildlife Service Direct Implementation	The overall goal of this project is to identify a minimum of ten migration barriers that meet conditions for immediate removal or further study.	4	6/10/11	4/30/15	Michigan		
										42.952402	-85.352783
2011	\$ 88,840	New Project	Replace Perched Culvert and Remove Dam at Reynolds Road (Platte River) in Benzie County, MI	U.S. Fish and Wildlife Service Direct Implementation	The primary goal of this project is to restore upstream fish passage to approximately 20 miles of lacustrine and fluvial habitats by replacing the undersized culvert and removing the small dam.	4	6/10/11	4/30/15	Michigan		
										44.708408	-85.861845
2011	\$ 135,000	New Project	Mudlock C&S Canal Dam Sturgeon Spawning Project	U.S. Fish and Wildlife Service Direct Implementation	The project will create spawning reefs for lake sturgeon and other fishes in the tailwaters of the Mudlock C&S Canal Dam in the Seneca River.	4	6/10/11	4/30/15	New York		
										42.95398	-76.739212
2011	\$ 40,000	New Project	Rauber Dam Removal Project	U.S. Fish and Wildlife Service Direct Implementation	Remove Rauber Dam to restore fish passage to 4.6 miles along Reynolds Gully.	4	6/10/11	4/30/15	New York		
										42.68458	-77.583561

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2011	\$ 56,000	New Project	Retrofit Old Seventysix Road to Restore Fish Passage	U.S. Fish and Wildlife Service Direct Implementation	Retrofit Old Seventysix Road to Restore Fish Passage	4	6/10/11	4/30/15	New York		
										42.34332	-76.302195
2011	\$ 133,097	New Project	Spring Creek Fish Passage Project	U.S. Fish and Wildlife Service Direct Implementation	This project will restore fish passage for native brook trout on Spring Creek at by restoring perched culverts at Pioneer Road and Spring Lake Road.	4	6/10/11	4/30/15	Wisconsin		
										46.527454	-92.509518
2011	\$ 100,000	Increase	Status and distribution of coaster brook trout in the Lake Superior Basin	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will work with its partners, including state, Tribal, and other federal agencies, to collect data on brook trout at a subwatershed level. Information will be used to improve existing records of the status and distribution of coaster brook trout in the Lake Superior Basin.	4	6/10/11	4/30/15	Wisconsin		
										46.604049	-90.858994
2011	\$ 46,500	New Project	Implementing the Lake Michigan Lakewide Management Plan	Little River Band of Ottawa Indians	Operation and equipment for the Little Manistee River Sturgeon Streamside Rearing Facility	5	6/10/11	completed	Michigan		
										44.14	-86.19
2011	\$ 3,500	New Project	Implementing the Lake Michigan Lakewide Management Plan	Michigan State University, Dr. Kim Scribner	Partial outreach funding for "Enhancing Michigan's virtual and place-based educational opportunities and community stewardship" using charismatic lake sturgeon in coupled human-Great Lakes ecosystems.	5	6/10/11	completed	Michigan		
										42.718	-84.55
2011	\$ 60,000	New Project	Eastern Massasauga Rattlesnake Population Assessment	U.S. Fish and Wildlife Service Direct Implementation	Population studies and assessment through surveys to determine occupancy.	4	6/10/11	4/30/15	Illinois		
										41.5497	-87.154541
2011	\$ 93,500	New Project	Comprehensive Multi-Species Status Assessments: Acquiring Contemporary Information for Recovery Planning and Five-Year Reviews	U.S. Fish and Wildlife Service Direct Implementation	Provide current information on population status, trends, threats, habitat suitability, for seven listed species: American Burying Beetle, Hine's Emerald Dragonfly, American Hart's-tongue Fern, Dwarf Lake Iris, Houghton's Goldenrod, Michigan Monkey-Flower, and Pitcher's Thistle.	4	6/10/11	4/30/15	Michigan		
										44.801327	-83.38623
2011	\$ 16,500	New Project	Copperbelly Watersnake Recovery	U.S. Fish and Wildlife Service Direct Implementation	Monitoring of the CWS population to 1) detect trends or changes in population numbers, 2) estimate size and abundance, and 3) assess effectiveness of habitat restoration efforts.	4	6/10/11	4/30/15	Michigan		
										41.828642	-83.759766
2011	\$ 40,000	Increase	Kirtland's Warbler Recovery	U.S. Fish and Wildlife Service Direct Implementation	Protection of nests and reducing threats from nest parasitism (cowbird control). Completion of MOU between Michigan DNR, USFS, and USFWS to conserve species in the future and assure delisting criteria are met.	4	6/10/11	completed	Michigan		
										46.070372	-85.608215

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2011	\$ 145,000	Increase	Piping Plover Recovery	U.S. Fish and Wildlife Service Direct Implementation	GLRI contribution to recovery of the Endangered Piping Plover through habitat enhancement and protection of nesting birds	4	6/10/11	4/30/15	Michigan		
										45.143305	-83.485107
2011	\$ 40,000	Increase	Pitcher's Thistle Recovery	U.S. Fish and Wildlife Service Direct Implementation	Pitcher's Thistle (<i>Cirsium pitcheri</i>) population status and threats investigation. Populations vulnerable due to invasive weevils and climate change. Long term conservation strategies under development and agreed to by multiple agencies (MOU signed).	4	6/10/11	completed	Michigan		
										42.875964	-86.132813
2011	\$ 63,400	New Project	Controlling of Japanese knotweed on Leedy's roseroot, a federally threatened plant	U.S. Fish and Wildlife Service Direct Implementation	Project assesses impacts and promotes recovery through control of the impacts of knotweed on Leedy's roseroot at Glenora Cliff population.	4	6/10/11	4/30/15	New York		
										42.779275	-76.838379
2011	\$ 99,600	New Project	Production of Genetically Diverse American Hart's-Tongue Fern for Introduction or Reintroduction in the Great Lakes Region	U.S. Fish and Wildlife Service Direct Implementation	Project is for the production of plants to establish or supplement populations, thus restoring the species to historical habitats. Also involves determination of genetic diversity and monitoring of growth and survival.	4	6/10/11	4/30/15	New York		
										43.229195	-76.854858
2011	\$ 200,622	New Project	Lake Erie Watersnake Recovery and Monitoring	U.S. Fish and Wildlife Service Direct Implementation	LEWS delisting accomplished in 2011. GLRI funding to assure post-delisting monitoring, as required by the Endangered Species Act, used to assure that delisting criteria could be met. Monitoring required for 5 years. FY11 funding used to assure years 2-5 fully funded.	4	6/10/11	4/30/15	Ohio		
										41.652393	-82.705078
2011	\$ 29,000	New Project	Development of Best Management Practices (BMPs) to Protect Groundwater at Hine's Emerald Dragonfly Larval Sites	U.S. Fish and Wildlife Service Direct Implementation	This project supports the development of best management practices to protect groundwater at Hine's Emerald Dragonfly larval sites in Wisconsin.	4	6/10/11	4/30/15	Wisconsin		
										45.07184	-87.19574
2011	\$ 42,000	New Project	Hine's Emerald Dragonfly (HED) Recovery	U.S. Fish and Wildlife Service Direct Implementation	HED population assessment, invasive species control, habitat restoration, genetics research, surveys and modeling to locate new HED sites. Includes research to determine best management practices to protect the endangered dragonfly.	4	6/10/11	completed	Wisconsin		
										45.019185	-87.659912
2011	\$ 51,800	New Project	Karner Blue Butterfly Recovery	U.S. Fish and Wildlife Service Direct Implementation	Restoration of rare barrens habitat to benefit the endangered Karner Blue Butterfly, Morainal Sands Recovery Unit, Wisconsin	4	6/10/11	4/30/15	Wisconsin		
										44.229457	-88.494873
2011	\$ 25,000	Increase	Piping Plover Recovery	U.S. Fish and Wildlife Service Direct Implementation	GLRI contribution to recovery of the Endangered Piping Plover through habitat enhancement and protection of nesting birds	4	6/10/11	completed	Wisconsin		
										45.143305	-83.485107

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2011	\$ 221,469	New Project	Boardman River Dam Removal: Phase 1- Brown Bridge Dam (LM-2-11)	Conservation Resource Alliance	The overall proposed project involves removing three dams and modifying a fourth which are barriers to fish and aquatic species passage. When implemented, there will be a resultant improvement in in-stream and river corridor habitat for fish and wildlife, restoration of natural woody debris recruitment and transport regimes, and temperature regimes negatively affected by the impoundments behind the dams. The approach going forward is technical in nature, relying on a wide variety of disciplines and involves holistic, watershed-scale restoration of natural stream and corridor function and configuration.	4	6/10/11	4/30/15	Michigan	44.64362	-85.509381
2011	\$ 186,868	New Project	Seneca and Cayuga Watersheds Stream Corridor Restoration (LO-2-11)	National Wild Turkey Federation	This project seeks to restore and enhance fish habitat, re-establish, expand or protect riparian buffers, and improve water quality. Survey work and restoration will occur on both private and federal lands. Management activities may include bank stabilization, reconnections to floodplains, planting native vegetation, fencing riparian areas to exclude cattle, repair leaking cattle ponds, invasive species removal, man-made trash removal, addition of coarse woody debris, and/or other techniques that will further the projects objectives.	4	6/10/11	4/30/15	New York	42.526519	-76.814346
2011	\$ 76,129	New Project	Graveyard Creek brook trout habitat restoration (LS-4-11)	U.S. Fish and Wildlife Service Direct Implementation	Restoration will begin with the sequential, upstream removal of abandoned, sediment-laden beaver dams. The primary creek channel will be further maintained by hand-installing brush bundles at excessively braided sites. Fish structures and beds of washed gravel will be installed by hand, prioritizing the expansion of existing spawning areas. Standardized electrofishing surveys will be used to collect population trend data and PIT tag detection stations will be used to track the intra-stream movement of marked fish, thereby enabling project assessments.	4	6/10/11	4/30/15	Wisconsin	46.571312	-90.487432
2011	\$ 591,386	New Project	Boardman Dam Removal Project: Brown Bridge and Sabin Dam	Conservation Resource Alliance	The overall proposed project involves removing three dams and modifying a fourth which are barriers to fish and aquatic species passage. When implemented, there will be a resultant improvement in in-stream and river corridor habitat for fish and wildlife, restoration of natural woody debris recruitment and transport regimes, and temperature regimes negatively affected by the impoundments behind the dams. This is the Brown Bridge and Sabin removal phase.	4	6/10/11	4/30/15	Michigan	44.645697	-85.510712
2011	\$ 330,000	New Project	State and Federal Refuge Protection Buffers in the Southwest	Ducks Unlimited	Ducks Unlimited will bring together the interests of state wildlife agencies, private organizations and federal agencies to permanently protect parcels buffering publically owned state and federal wildlife areas located in the Southwest Lake Erie Region (Michigan, Ohio). In conjunction with ongoing protection and restoration efforts this multi-state project will provide connectivity and high quality habitat to sustain and attract wildlife.	4	6/10/11	4/30/15	Ohio	41.614929	-83.197403
2011	\$ 80,804	New Project	Restoring Wetland Habitat for the Federally-Threatened Northern Distinct Population Segment (DPS) of the Copperbelly Water Snake	Michigan Department of Natural Resources	We will restore 44 acres of agricultural fields to habitat that will benefit the federally-threatened northern distinct population segment (DPS) of the copperbelly water snake (Nerodia erythrogaster neglecta) by creating a complex of shallow ephemeral wetlands amongst forested uplands following guidelines outlined in the USFWS copperbelly water snake Recovery Plan.	4	6/10/11	4/30/15	Michigan	41.683682	-84.666653
2011	\$ 54,274	New Project	Restoration of Deepwater Ciscoes in Lake Ontario	Michigan Department of Natural Resources and the Ohio Department of Fish and Wildlife	Deepwater cisco restoration is an important objective of the Lake Ontario Committee. This project facilitates the collection of gametes and development of genetic analysis tools to evaluate reintroduction procedures. Identifying sources of reintroduced ciscoes using genetic tags will be essential to evaluate the success of restoring ciscoes to Lake Ontario.	4	6/10/11	4/30/15	New York	43.648001	-77.722778
2011	\$ 330,000	New Project	Lake Sturgeon Streamside Rearing Facilities in the Upper Great Lakes	Michigan Department of Natural Resources, Wisconsin Department of Natural Resources, and the Little River Band of Ottawa Indians	This project will utilize and adapt the streamside rearing technique for multiple sites in the Great Lakes basin. These sites include the Manistee, Whitefish, Cedar, Kalamazoo, Keweenaw and Milwaukee rivers of the Lake Michigan basin, the Black Duck River of the Lake Huron basin, and the Ontonagon River of the Lake Superior basin in Michigan and Wisconsin waters. This project will also help to protect the genetic diversity of remnant stocks, promote lake sturgeon restoration to the public and increase public participation and ownership in natural resource rehabilitation efforts and education, and ultimately introduce at least 6,000 fingerling lake sturgeon into the Great Lakes basin.	4	6/10/11	4/30/15	Multi-State	45.73686	-86.088867
2011	\$ 598,800	Increase	Conservation of Great Lakes Islands	U.S. Fish and Wildlife Service Direct Implementation	This project focuses on the protection of Great Lakes island habitat and coastal habitats that are important to endemic, threatened and endangered species and migratory birds. Island ecosystems are threatened by recreational over-use, increased development and invasive species. This project includes inventory of habitats and land acquisition by the National Wildlife Refuge System.	4	6/10/11	completed	Michigan	42.764469	-84.515312

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2011	\$ 160,031	New Project	Avian Habitat Restoration at Joseph Davis State Park	Buffalo Audubon Society	This project will restore at least 35 acres of shrub habitat in need of restoration, making it a highly productive habitat for native pollinators, breeding birds, and migrating birds reliant on fruits from native shrubs.	4	6/10/11	4/30/15	New York		
										43.214434	-79.043884
2011	\$ 61,250	New Project	Geneva Swamp Protection Project	Cleveland Museum of Natural History	Protect 50 acres of high-quality Lake Erie Lake Plain Swamp Forest near Geneva Township, OH	4	6/10/11	4/30/15	Ohio		
										41.822822	-80.92658
2011	\$ 208,000	New Project	Maple River State Game Area Wetland Enhancement	Ducks Unlimited Inc.	This project will enhance 344 acres of emergent, forested, and scrub-shrub wetlands at the 9,000-acre Maple River State Game Area (MRS GA) by restoring the ability to manage water levels, through the installation of a new pump, removal of three inoperable water control structures, and installation of a new water control structure.	4	6/10/11	4/30/15	Michigan		
										43.139951	-84.544945
2011	\$ 101,858	New Project	Presque Isle State Park Coastal Habitat Restoration	Ducks Unlimited Inc.	This project is part of a comprehensive, long-term, multimillion-dollar, collaborative effort between state agencies, non-governmental organizations, education institutions, and local volunteers to enhance and restore unique natural communities located on the Lake Erie shoreline of northwestern Pennsylvania. GLRI funds will be used for invasive species removal efforts, including aerial herbicide applications and a Menzi flail mower attachment, for 201 acres of coastal wetlands along the Lake Erie shoreline.	4	6/10/11	4/30/15	Pennsylvania		
										42.156278	-80.106125
2011	\$ 250,000	New Project	Southeast Lake Michigan Riparian, Riverine, and Upland Habitat Protection/Restoration Project	Southwest Michigan Land Conservancy	Protect 120 acres of wetland and upland habitat in Van Buren County, MI. Subsequent restoration efforts on parcel will link high-quality natural communities present on site.	4	6/10/11	4/30/15	Michigan		
										42.384542	-86.178389
2011	\$ 150,000	New Project	Building a Protected Mosaic at Grass Bay	The Nature Conservancy-MI	Protect 41 acres of coastal wetlands and associated upland habitat, including 150 feet of Lake Huron shoreline. These parcels will facilitate landscape scale management of adjacent lands	4	6/10/11	4/30/15	Michigan		
										45.657728	-84.397316
2011	\$ 86,341	New Project	Distribution and Abundance of Breeding Birds in the Upper Midwest and Great Lakes Region as Influenced by Climate and Land Cover Change	Michigan State University	The project will provide a retrospective analysis of the relationships among bird abundance and distribution and changes in land cover and climate in the Upper Midwest and Great Lakes region. The resultant models can provide spatially explicit forecasts of future avian responses and thereby provide a cost effective means of incorporating climate change into bird conservation decisions.	4	6/10/11	4/30/15	Multi-State		
										42.718	-84.55
2011	\$ 50,992	New Project	Scenarios for forest reserve expansion and adaptive management under alternative climate change scenarios in the northern Great Lakes	Portland State University	Assess (using LANDIS-II) how an expansion of forest reserves and climate-adaptive management may improve ecological connectivity and resilience under different climate scenarios. The project will cover areas in northern MN and northern lower MI that represent northern Great Lakes forest types.	4	6/10/11	4/30/15	Multi-State		
										42.718	-84.55
2011	\$ 116,088	New Project	Full Life Cycle Vulnerability Assessments for the Birds of the Upper Midwest Great Lakes Region	Smithsonian Conservation Biology Institute, Migratory Bird Center	Full life-cycle vulnerability assessments will be carried out of the effects of climate change on nongame migratory birds that are of conservation concern that breed in the region. This will provide a framework for integrating exposure to climate changes, sensitivity to these changes, and the potential for adaptation in both winter and summer seasons.	4	6/10/11	4/30/15	Multi-State		
										42.718	-84.55

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2011	\$ 134,771	New Project	On a Wing and a (GIS) Layer: Prioritizing Migratory Bird Stopover Habitat Along Great Lakes Shoreline	The Nature Conservancy	The project will develop a scalable (Great Lakes wide, individual lake basin, to coastal reach within a lake basin) rule-based spatial model for ranking the relative importance of coastal lands (< 15 miles from shoreline) and waters as habitat for migrating birds. Results will be used to guide conservation actions including land acquisition, land and water management and restoration, and development of wind energy facilities.	4	6/10/11	4/30/15	Multi-State		
										42.718	-84.55
2011	\$ 150,000	New Project	Develop a comprehensive information management framework	The Nature Conservancy-MI	The Nature Conservancy and U.S. Geological Survey, working with partners will develop and implement a shared Great Lakes information management and delivery system to help support the mission of the Upper Midwest/Great Lakes (UMGL) Landscape Conservation Cooperative (LCC).	4	6/10/11	4/30/15	Michigan		
										45.10455	-87.63245
2011	\$ 145,505	New Project	Predicting Climate Change Effects on Riverine Insects Using Museum Data and Niche Modeling	University of Illinois	Four major data sources, aquatic insect museum data, environmental data from the Great Lakes Aquatic Gap Program, the National Hydrography Dataset, and USEPA-STAR Climate Change Database, will be used to model the occurrence of some 400 species of aquatic insects and assess how climate change will affect their distributions and connectivity between populations.	4	6/10/11	4/30/15	Multi-State		
										42.16	-83.44
2011	\$ 128,496	New Project	Manajiw: Respecting Tribes, First Nations and Cultural Resources in Cooperative Landscape and Climate Change Decision Making	University of Michigan School of Natural Resources and Environment	The project will improve Tribal and First Nation engagement in cooperative natural resource conservation efforts by fostering networking among Tribes, First Nations and other relevant partners in the Upper Midwest – Great Lakes region to develop a set of principles and strategies for their inclusion in regional conservation cooperative frameworks and will conduct an environmental scan of current climate and landscape change planning initiatives as well as mitigation and resilience-building projects being implemented by Tribes and First Nations in the region.	4	6/10/11	4/30/15	Multi-State		
										42.718	-84.55
2011	\$ 112,965	New Project	Reestablishing Ecological Connectivity between the Great Lakes and their Tributaries: Prioritization in a Complex System	University of Wisconsin, Center for Limnology	The project will provide specific guidance for aquatic connectivity restoration at scales from individual watersheds to the entire basin, refine methodologies for spatial analysis of barriers, and provide a systematic framework for comparing costs (direct economic costs, species invasions) and benefits (connectivity, focal fish species) of barrier removal.	4	6/10/11	4/30/15	Multi-State		
										42.718	-84.55
2011	\$ 200,000	New Project	A Regional Decision Support Tool for Identifying Vulnerabilities of Riverine Habitat and Fishes to Climate Change	US Geological Survey, The Nature Conservancy	Partners will predict potential changes in thermal and flow regimes and keystone fish species/groups under modeled downscaled climate change scenarios to identify vulnerabilities of systems of the Upper Midwest and Great Lakes Landscape. The project will also develop a web-based decision support system to provide river segment-scale data that characterize the river network/catchment, connectivity, vulnerability to climate change, and potential management scenarios and adaptation strategies for use by stakeholders.	4	6/10/11	4/30/15	Multi-State		
										42.718	-84.55
2011	\$ 500,000	Increase	Great Lakes Wind Power: Making it Migratory Bird and Bat Friendly	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will employ specially designed mobile RADAR units to identify areas where wind development can be safely done and areas where it is likely to have the most negative impacts on birds or bats. Information will help to identify key areas throughout the Great Lakes that are critical to the many bird and bat species that migrate across and around the Great Lakes.	4	6/10/11	completed	Multi-State		
										45.2825	-82.555
2011	\$ 1,453,398	New Project	Mass Marking of Great Lakes and Salmon	U.S. Fish and Wildlife Service Direct Implementation	This project funds were used to purchase tags, hire two additional trailer operators and support staff, and tag 4.6 million federally reared lake trout and 4.8 million state reared salmon. additionally staff were hired to assist the New York Department of Environmental Conservation in their tag and recovery program on Lake Ontario.	4	6/10/11	4/30/15	Multi-State		
										45.560218	-85.946045
2011	\$ 121,000	Increase	Determination of VHS virus prevalence and geographical distribution in the Lower Great Lakes Basin	U.S. Fish and Wildlife Service Direct Implementation	A new, highly virulent strain of Viral Hemorrhagic Septicemia virus (VHSV) has recently been detected in wild fish in the Great Lakes Basin. Outbreaks have caused massive fish kills in a broad range of freshwater fish species. Investigations through cooperative surveys across the Lower Lakes basin (Lakes Ontario and Eire) from a wide array of species will be coordinated and led by the U.S. Fish and Wildlife Service. Information will assess the risk to cultured and wild fish across the country.	4	6/10/11	4/30/15	Multi-State		
										43.299197	-77.571716

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2011	\$ 46,250	Increase	Determining presence of EEDv and other viruses in lake trout in the Great Lakes	U.S. Fish and Wildlife Service Direct Implementation	The viral disease EED caused large-scale mortalities of lake trout in Great Lakes regional fish hatcheries in the late 1980's. Recently, the virus has been detected in wild populations of fish and has been attributed to mortalities at one state fish hatchery. PCR techniques were used to test 631 fish for EEDv from hatchery and wild fish submitted by the Wisconsin DNR and 114 fish from wild fish populations (in cooperation with FWS NFWCO's and IL DNR) from lakes Superior and Michigan.	4	6/10/11	4/30/15	Multi-State	43.874618	-91.197767
2011	\$ 301,871	Increase	Distribution of hatchery lake trout and completion of fishery assessments using the M/V Spencer F. Baird (Baird)	U.S. Fish and Wildlife Service Direct Implementation	The MV Baird distributed over 3.9 million hatchery raised lake trout to offshore areas of Lakes Huron and Michigan. The Baird embarked on 33 stocking trips over an 80 day season and traveled a total of 2,920 miles. In FY 2011, the Baird also completed spawning lake trout assessments at 2 sites on Yankee Reef, Lake Huron, and prey fish surveys on Lakes Michigan and Huron.	4	6/10/11	4/30/15	Multi-State	45.648188	-84.472246
2011	\$ 1,901,941	Increase	Hatchery infrastructure improvements and construction USFWS Midwest Region	U.S. Fish and Wildlife Service Direct Implementation	Projects included improvements and modifications to National Fish Hatchery facilities to significantly improve production and capabilities in the Great Lakes, as well as improve the water quality of point source discharge from these facilities.	4	6/10/11	4/30/15	Multi-State	46.448266	-84.82132
2011	\$ 114,000	Increase	Increase exotic /emerging fish disease surveillance	U.S. Fish and Wildlife Service Direct Implementation	Recent introductions and isolations of new fish viruses are true threats to both the economy of U.S. aquaculture and to native species. This project, conducted by the U.S. Fish and Wildlife Service, will determine the geographic distribution of aquatic animal pathogens, which will enable state, federal, and tribal managers and policy makers to make scientifically sound management decisions.	4	6/10/11	4/30/15	Multi-State	42.275785	-79.788895
2011	\$ 342,000	Increase	Lake Huron Lake Trout and Lake Sturgeon Restoration Activities at the Alpena Fish and Wildlife Conservation Office	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Alpena, MI Fish and Wildlife Conservation Office will conduct lake trout spawning surveys at mid-lake reefs and juvenile survival surveys in two northern Lake Huron management units in Treaty waters, perform lake trout stock assessment modeling analyses, and evaluate progress in meeting goals of lake trout rehabilitation efforts. The office will provide leadership and interagency coordination to guide the future stocking program in Lake Huron.	4	6/10/11	completed	Multi-State	45.067701	-83.432922
2011	\$ 403,500	Increase	Lake Michigan Lake Trout and Lake Sturgeon Restoration Activities at Green Bay Fish and Wildlife Conservation Office	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Green Bay Fish and Wildlife Conservation Office will provide leadership, coordination, and field activities (stocking, habitat and population assessments, habitat restoration and enhancements) to achieve rehabilitation objectives for lake sturgeon and lake trout in Lake Michigan, as defined in fishery management and conservation plans.	4	6/10/11	completed	Multi-State	44.32	-87.52
2011	\$ 184,223	Increase	Lake Sturgeon Restoration Initiative in the Great Lakes: Construct Mobile Rearing Unit	U.S. Fish and Wildlife Service Direct Implementation	Construction was completed on the Fish and Wildlife Service's first lake sturgeon streamside rearing trailer in FY2011. A site on the Kalamazoo River was selected for trailer site placement and site development was completed with FY2011 funds, which included installing a groundwater well supply, and electrical power deployment. The trailer was placed and a position was hired to staff the trailer and support a part time person employed by the Michigan DNR through a conservation grant.	4	6/10/11	completed	Multi-State	44.879884	-93.243133
2011	\$ 403,500	Increase	Lake Trout and Lake Sturgeon Restoration Activities at Ashland Fish and Wildlife Conservation Office	U.S. Fish and Wildlife Service Direct Implementation	Continued leadership, coordination, and field activities to achieve rehabilitation objectives for lake sturgeon rehabilitation in Lake Superior. Ashland FWCO also worked with NPS to assess Lake trout genetics and phenotype at Isle Royale National Park.	4	6/10/11	completed	Multi-State	46.597562	-90.883026
2011	\$ 150,000	Increase	Maintain and enhance lake trout production capabilities at Jordan River NFH.	U.S. Fish and Wildlife Service Direct Implementation	This project will expand fish production levels at Jordan River NFH during FY 2011. 50,000 additional lake trout yearlings over 2009 levels will be stocked in FY2012 from the hatchery to help meet restoration and Consent Decree goals for the Great Lakes. This project was also instrumental in modernizing fish production technologies at the hatchery which will have long term benefits to GL lake trout programs into the future.	4	6/10/11	completed	Multi-State	45.022825	-84.93084

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2011	\$ 150,000	Increase	Maintain and enhance lake trout production capabilities at Pendills Creek NFH	U.S. Fish and Wildlife Service Direct Implementation	At Pendills Creek NFH, funding improved husbandry capabilities that directly aided in raising high quality lake trout for Lakes Michigan and Huron.	4	6/10/11	completed	Multi-State		46.448266	-84.82132
2011	\$ 200,000	Increase	Maintain and enhance lake trout production capabilities at Iron River NFH	U.S. Fish and Wildlife Service Direct Implementation	At Pendills Creek NFH, funding improved husbandry capabilities that directly aided in raising high quality lake trout for Lakes Michigan and Huron.	4	6/10/11	completed	Multi-State		46.658391	-91.373978
2011	\$ 67,620	Increase	Maintain USFWS Midwest Region Aquatic Species Isolation Facility	U.S. Fish and Wildlife Service Direct Implementation	Operate the Region 3 fish and Aquatic Resource Isolation Facility. This facility collects gametes from wild populations and after a clearance process of 3 fish health inspections, safely incorporates the progeny into existing captive broodstock populations. This project included the isolation and clearance of one valuable strain of lake trout from Lake Superior's Klondike Reef to augment existing captive broodstocks for ongoing restoration programs.	4	6/10/11	completed	Multi-State		43.563352	-91.228065
2011	\$ 274,450	Increase	Restoration of Lake Trout and Lake Sturgeon - Law Enforcement	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service, Office of Law Enforcement will support the pursuit of criminal investigations focused on illegal take of Great Lakes lake trout and lake sturgeon populations.	4	6/10/11	completed	Multi-State		44.869884	-93.233133
2011	\$ 97,400	Increase	Lake trout and lake sturgeon assessment and research activities in the lower Niagara River	U.S. Fish and Wildlife Service Direct Implementation	This project will assess Lake sturgeon in the lower Niagara river through a combination of mark-recapture, radio telemetry, catch-per-unit-effort indices, reproductive physiology assessment and age and growth determination. Lake trout will be assessed through radio telemetry and genetic analysis of both adult and juvenile fish. In addition, experiments for refinement of lake trout bioenergetics models and comparison of energetics between morphotypes is being conducted at the USFWS Northeast Fishery Center.	4	6/10/11	4/30/15	New York		43.232697	-79.053497
2011	\$ 257,349	Increase	Lake Trout and Lake Sturgeon Restoration Activities in the Lower Great Lakes	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Lower Great Lakes Fish and Wildlife Conservation Office is continuing assessment of lake trout and lake sturgeon in the Niagara River and Niagara Bar. This includes habitat use and mapping, population assessment, and lower trophic level assessment. This is a collaborative project with the U.S. Fish and Wildlife Northeast Fishery Center.	4	6/10/11	4/30/15	New York		43.203174	-79.050751
2011	\$ 80,948	Increase	Lower Great Lakes Lower Trophic Monitoring Program	U.S. Fish and Wildlife Service Direct Implementation	The USFWS Lower Great Lakes Fish and Wildlife Conservation Office will monitor and evaluate key lower trophic variables (phosphorus, chlorophyll a, secchi depth and zooplankton density and biomass) that characterize overall ecosystem change spatially, temporally and by habitat types. Collections will occur at 18 stations in Lake Erie and 12 stations in Lake Ontario from May through October.	4	6/10/11	4/30/15	New York		43.032761	-78.811798
2010	\$ 1,000,000	New Project	Southeast Wisconsin Coastal Habitat Initiative-Phase V	Ducks Unlimited Inc.	Protect, restore, or enhance 1,836 acres of wetlands and associated uplands throughout a 13-county area in Southeast Wisconsin.	4	2/5/10	9/30/14	Wisconsin		43.572432	-87.670898
2011	\$ 9,950	New Project	Partners for Fish and Wildlife Program-Illinois 1	U.S. Fish and Wildlife Service Direct Implementation	FY11 Partners for Fish and Wildlife GLRI funds have been committed to enhance approximately 9.3 acres of Lake Michigan Coastal Dune habitat at the Chicago Park District's Montrose Beach. The FY11 PFW/GLRI project will work closely with the Chicago Park District, and an active group of volunteer stewards to enhance the dunes by removing invasive woody and herbaceous plant species, and by allowing purchase of plugs of native dune species to be planted in the project area.	4	6/10/11	4/30/15	Illinois		42.398108	-87.818527

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2011	\$ 9,950	New Project	Partners for Fish and Wildlife Program-Illinois 2	U.S. Fish and Wildlife Service Direct Implementation	FY11 Partners for Fish and Wildlife GLRI funds have been committed to enhance approximately 8.9 acres of Lake Michigan Coastal Dune habitat located at the Chicago Park District's Rainbow Beach. Similar to the Montrose Beach Dunes (15 miles north), the coastal dunes at Rainbow Beach now attract stopovers by many migratory waterbirds and shorebirds, including the federally endangered Great Lakes Piping Plover. The dunes will be enhanced by the removal of invasive woody and herbaceous plant species.	4	6/10/11	4/30/15	Illinois		42.398615	-87.822304
2011	\$ 19,300	Increase	Partners for Fish and Wildlife Program - Indiana	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	6/10/11	4/30/15	Indiana		41.186212	-85.09675
2011	\$ 203,118	Increase	Partners for Fish & Wildlife MichiganFY11	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	6/10/11	4/30/15	Michigan		42.764721	-84.505033
2011	\$ 100,000	Increase	Partners for Fish and Wildlife - New York	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	6/10/11	completed	New York		42.666281	-76.190186
2011	\$ 69,900	Increase	Partners for Fish and Wildlife - Ohio	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	6/10/11	4/30/15	Ohio		41.58258	-80.991211
2011	\$ 1,043,866	Increase	Implementation of Indiana ANS Management Plan	Indiana Department of Natural Resources	The Indiana Department of Natural Resources will implement plant control and eradication projects with emphasis on newly invading plants, consistent with the Indiana Aquatic Invasive Species Management Plan. Early detection and rapid response projects will primarily focus on Asian carp issues and preventing them from reaching the Great Lakes watershed. Outreach and education will focus on preventing the spread of species.	2	6/10/11	4/30/15	Indiana		41.52503	-86.159935
2011	\$ 1,043,866	Increase	Implementing Michigan's Comprehensive State Management Plan for Non-indigenous Aquatic Nuisance Species	Michigan Department of Environmental Quality	In the first year of the Aquatic Invasive Species (AIS) program, Michigan will establish a more formal, cohesive AIS program, update the state management plan, and implement selected top priority actions in the plan. Funding will be used primarily to support state staff to build program capacity. In subsequent years, a portion of the funds will be used for projects for which competitive funding from the other line items in the GLRI would not be appropriate.	2	6/10/11	4/30/15	Michigan		42.73264	-84.560008
2011	\$ 1,043,866	Increase	Implementation of the New York State Aquatic Nuisance Species Management Plan	New York State Dept. of Environmental Conservation	This project will continue the implementation of priority Great Lakes actions included in the State of New York's Nonindigenous Aquatic Species Comprehensive Management Plan.	2	6/10/11	4/30/15	New York		42.55	-78.48
2011	\$ 1,043,866	Increase	Implementation of the Pennsylvania Aquatic Nuisance Species Management Plan	Pennsylvania Fish & Boat Commission	This project will continue the implementation of priority Great Lakes actions included in the Pennsylvania Nonindigenous Aquatic Species Comprehensive Management Plan.	2	6/10/11	4/30/15	Pennsylvania		42.03	-80.04

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2011	\$ 1,043,866	Increase	Implementation of Ohio ANS Management Plan	Ohio Department of Natural Resources	The state of Ohio will implement priorities for early detection, monitoring, and prevention listed in its Aquatic Nuisance Species (ANS) State Management Plan. The environmental attributes of Lake Erie are ideal for many invading species, and, Ohio will focus ANS efforts on species such as zebra mussels, round goby, and Asian carp.	2	6/10/11	4/30/15	Ohio		41.458021	-82.713296
2011	\$ 5,546,460	Increase	Asian Carp Framework Projects and Action Items	Illinois Department of Natural Resources	The State of Illinois will implement priority Great Lakes actions identified in the Illinois State Comprehensive Management Plan for Aquatic Nuisance Species. Activities in FY2011 will be focused on Asian carp, per the Asian Carp Framework Strategy 2011.	2	6/10/11	4/30/15	Illinois		41.722131	-87.978516
2011	\$ 1,043,866	Increase	Implementation of Wisconsin ANS Management Plan	Wisconsin Department of Natural Resources	The State of Wisconsin will implement priority Great Lakes actions identified in Wisconsin's Comprehensive Management Plan to Prevent Further Introductions and Control Existing Populations of Aquatic Invasive Species.	2	6/10/11	4/30/15	Wisconsin		44.538275	-87.882965
2011	\$ 1,043,866	Increase	Implementation of Minnesota ANS Management Plan	Minnesota Department of Natural Resources	The Nonindigenous Aquatic Nuisance Prevention and Control Act, as amended, authorized Federal Support, via U.S. Fish and Wildlife Service, for State and Interstate Aquatic Nuisance Species Management Plans. The State of Minnesota will continue implementation of a state plan for invasive species.	2	6/10/11	4/30/15	Minnesota		44.86	-93.253133
2011	\$ 150,000	New Project	Northeast Illinois Ravine Restoration & Monitoring Program	Alliance for the Great Lakes	The outcomes are to preserve and restore terrestrial, aquatic and associated riparian habitat through two on-the-ground projects along with a capacity building component for landowners.	4	6/10/11	4/30/15	Illinois		42.387492	-87.84668
2011	\$ 68,787	New Project	Restoring Fish Passage and Habitat in the Bad River Watershed	Bad River Watershed Association	Bad River Watershed Association (BRWA) and partners will replace two poorly performing culverts to restore 1.5 miles of upstream fish passage and improve 1,000 feet of in-stream habitat in the Bad River watershed.	4	6/10/11	4/30/15	Wisconsin		46.397273	-90.715485
2011	\$ 200,000	New Project	Avian Habitat Restoration at Joseph Davis State Park (NY)	Buffalo Audubon Society	Buffalo Audubon Society and partners will restore and enhance 85 acres of critical bird habitat at Joseph Davis State Park along the Upper Niagara River Corridor. Through invasive species control and seeding and planting of native vegetation, the project will benefit priority bird species by improving forested wetland, scrub-shrub wetland and shrub/scrub early successional habitats throughout the park. This work will address habitat-related Beneficial Use Impairments and contribute to the delisting of the Niagara River Area of Concern by helping to reverse the loss of bird habitat.	4	6/10/11	4/30/15	New York		43.214576	-79.043713
2011	\$ 40,000	New Project	Cuyahoga River Invasive Plants Control and Riparian Restoration	Conservancy for Cuyahoga Valley National Park	The Conservancy for Cuyahoga Valley National Park and partners will control invasive species and plant native seed to improve 50 acres of habitat along the Cuyahoga River in northern Ohio. Control efforts will focus on several species, including Japanese knotweed, privet, bush honeysuckle and multiflora rose.	4	6/10/11	4/30/15	Ohio		41.16	-81.33
2011	\$ 1,000,000	New Project	Boardman River Dam Removal Phase 1	Conservation Resource Alliance	The project will remove three dams and modify a fourth dam to restore aquatic connectivity and fish passage to 160 miles of the Boardman River, a prized coldwater stream that flows into the Grand Traverse Bay of northern Lake Michigan. In addition to removing these barriers, the project will restore 20 miles of river habitat and 253 acres of wetlands along the river corridor.	4	6/10/11	4/30/15	Michigan		44.64362	-85.509381

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2011	\$ 500,000	New Project	Coastal Restoration at the Refuge Gateway and Humbug Marsh	Downriver Community Conference	The Downriver Community Conference and other partners will restore and enhance coastal, wetland and associated upland habitat at Wayne County's Refuge Gateway and the adjacent Humbug Marsh unit of the Detroit River International Wildlife Refuge. Specifically, restoration activities will result in a net gain of 16 acres of coastal wetland habitat and 25 acres of riparian buffer habitat in the Refuge Gateway, treatment of 2.5 miles of shoreline for invasive Phragmites, and the removal of buckthorn and garlic mustard on more than 50 acres of forested lakeplain habitat in Humbug Marsh.	4	6/10/11	4/30/15	Michigan		42.114842	-83.187447
2011	\$ 1,500,000	New Project	Restoring Wetlands and Fish Passage in the Shiawassee Flats	Ducks Unlimited, Inc.	Ducks Unlimited and partners will restore the habitat quality and aquatic connectivity of 940 contiguous acres of former emergent wetlands adjacent to the Shiawassee River at Shiawassee National Wildlife Refuge. This acreage was previously converted for agricultural production, and the project will restore wetland functions and values by restoring hydrology and re-establishing an aquatic connection between the wetlands and the Saginaw River. This work will contribute to the delisting of at least three Beneficial Use Impairments associated with the Saginaw River/Bay Area of Concern.	4	6/10/11	4/30/15	Michigan		43.351713	-84.026706
2011	\$ 632,603	New Project	Southern Lake Erie (PA) Watershed Restoration	Ducks Unlimited, Inc.	Ducks Unlimited and partners will restore and enhance 392 acres of wetland and upland habitat at four locations within the Lake Erie watershed of Pennsylvania. Specifically, the project will restore and enhance: 1) approximately 201 acres of wetlands, sand barrens and sand plains, and shoreline at Presque Isle State Park; 2) 75 acres of oak savanna and forest at Erie Bluffs State Park; 3) 10 acres of emergent wetlands at the Roderick Wildlife Reserve; and 4) 106 acres of forest at the Little Elk Creek Forest.	4	6/10/11	4/30/15	Pennsylvania		42.156278	-80.106125
2011	\$ 500,000	New Project	Chicago Lakeplain Wetland Restoration Partnership Program	Friends of the Forest Preserves	The project will restore 705 acres of lakeplain habitat at nine sites in the Calumet region. Through this work, the project is expected to reduce nonnative and invasive vegetation by 90% and increase native plant diversity by 25%. This project will improve and expand habitat for many rare and imperiled species, including Blanding's turtle, the federally threatened eastern prairie fringed orchid, and the federally endangered whooping crane.	4	6/10/11	4/30/15	Illinois and Indiana		41.608319	-87.554855
2011	\$ 420,000	New Project	Thunder Bay River Road Stream Crossing BMP Installation	Huron Pines Resource Conservation and Development Council	The project will improve water quality and in-stream habitat connectivity by replacing 10 problematic road/stream crossings in the Thunder Bay River watershed. The selected crossings will be replaced with larger bottomless or embedded structures to better allow natural stream dynamics and passage by aquatic organisms. This work is expected to reduce sediment loading to the river by 113 tons per year and restore fish passage to 134 stream miles.	4	6/10/11	4/30/15	Michigan		45.034715	-83.82843
2011	\$ 100,000	New Project	Sucker River Fish Habitat Enhancement Project	Minnesota Trout Unlimited	Minnesota Trout Unlimited and partners will enhance the quality of in-stream and riparian habitat along 4,500 feet of the Sucker River, a tributary to Lake Superior in northern Minnesota. The project will involve: 1) in-stream placement of large woody debris and rock veins to create deep pool habitat and cover; 2) invasive plant control; 2) bank stabilization; and 4) restoration of native vegetation and tree canopy. This work will improve habitat for brook trout and many other fish species.	4	6/10/11	4/30/15	Minnesota		46.56	-91.52
2011	\$ 28,400	New Project	Cedar Creek Stream Habitat Restoration	Muskegon River Watershed Assembly	Muskegon River Watershed Assembly and partners will improve 7,892 feet of coldwater trout stream and 11 acres of riparian buffer along Cedar Creek. The project will involve: 1) installation of 800 lineal feet of woody structures to stabilize banks and provide cover; and 2) re-establishment of native tree canopy and understory in riparian areas on public and private land. This work will improve habitat within the Muskegon Lake Area of Concern and benefit brook trout and many other fish species in one of the few remaining trout streams in the area.	4	6/10/11	4/30/15	Michigan		43.297198	-86.165771
2011	\$ 31,803	New Project	Riveredge State Natural Area Restoration Project	Riveredge Nature Center	Staff of Riveredge Nature Center and nearly 300 volunteers will enhance 90 acres and 1.3 miles of Riveredge Creek within Riveredge Nature Center, a 379- acre environmental learning center in southeastern Wisconsin. This work will improve the condition of wetlands, riparian areas, and adjacent upland habitat within the Milwaukee Estuary Area of Concern and enhance habitat for the endangered swamp metalmark butterfly and many other wildlife species.	4	6/10/11	4/30/15	Wisconsin		43.26	-88.1
2011	\$ 124,840	New Project	Community Collaboration to Protect Important Wetland Habitat (MI)	Stewardship Network	The project will control invasive species on 148 acres within the River Raisin and Shiawassee River headwaters. Control will focus on several invasive species, including swallow-wort, glossy buckthorn, reed canary grass, honeysuckle and autumn olive. This work will improve habitat in the River Raisin Area of Concern and benefit many species of concern, including massasauga, Blanding's turtle, least bittern, marsh wren and poweshiek skipper.	4	6/10/11	4/30/15	Michigan		42.718	-84.55

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2011	\$ 1,020,432	New Project	Full Scale Invasive Plant Control Along Eastern Lake Michigan	The Nature Conservancy	The project will restore the quality of coastal dunes and wetlands along the 505-mile shoreline of eastern Lake Michigan through early detection and control of 14 invasive plant species. This work continues the work of the Michigan Dune Alliance, a Cooperative Weed Management Area dedicated to the preservation of eastern Lake Michigan natural systems.	4	6/10/11	4/30/15	Michigan		
										44.682325	-86.249542
2011	\$ 869,188	New Project	Oak Openings Interagency Restoration Team	The Nature Conservancy-OH	The Nature Conservancy and partners will restore 400 acres of wetlands and 100 acres of associated uplands on public and private lands within the Lakeplain Oak Openings of the western Lake Erie basin. The project will improve habitat within the Detroit River, River Raisin and Maumee River Areas of Concern and benefit many species of concern, including the federally endangered Karner blue butterfly, federally threatened eastern prairie fringed orchid, and state-listed species such as Blanding's turtle and blue-spotted salamander.	4	6/10/11	4/30/15	Ohio		
										41.620464	-83.791866
2011	\$ 60,670	New Project	Building Capacity to Conserve Wetlands near the Buffalo River (NY)	Town of West Seneca	The Town of West Seneca and partners will implement a habitat restoration plan for the 30-acre oxbow wetland on Buffalo Creek, approximately 10 miles upstream of the river's mouth at Lake Erie, and strengthen its capacity to manage its Buffalo River tributary corridors. Work will improve habitat in the Buffalo River Area of Concern and benefit many species of conservation concern, including snapping turtle and redheaded woodpecker.	4	6/10/11	4/30/15	New York		
										42.932296	-78.87085
2011	\$ 62,000	New Project	RRIP_IT_UP! Eradicate Garlic Mustard in Michigan's Upper Peninsula	Upper Peninsula Resource Conservation and Development Council	The project will implement a long-term strategy to eliminate invasive garlic mustard from Michigan's Upper Peninsula. Outcomes include: 1) improved habitat for native plant communities and native wildlife on 350 acres; and 2) a well-trained volunteer network made up of at least 40 organizations, agencies, and other groups that will work together on early detection and rapid response to existing and new garlic mustard infestations.	4	6/10/11	4/30/15	Michigan		
										46.500535	-87.423706
2011	\$ 49,985	New Project	Aders Creek Restoration and Wetland Enhancement (WI)	Wisconsin Department of Natural Resources	Wisconsin Department of Natural Resources and partners will restore and enhance 5,000 feet of stream and four wetlands on the Brillion Wildlife Area. The project will restore the natural meander to the currently channelized stream, increasing the length from 3,700 to 5,000 feet. Work will restore natural stream and wetland hydrology and improve habitat for blue-wing teal and other waterfowl, northern pike and other fish, and many other wildlife species.	4	6/10/11	4/30/15	Wisconsin		
										44.146124	-88.124943
2011	\$ 80,000	New Project	Bay Mills Indian Community assessment and mangement of invasive plant species	Bay Mills Indian Community	The Bay Mills Indian Community recognizes the importance of having functioning systems to support natural flow of water, native fish and wildlife, and a healthy tribal community. With that in mind the Tribe is worried about the threat that terrestrial and aquatic invasive species have and will have on the natural functioning of the lands they inhabit and use. We are requesting funding from the Bureau of Indian Affairs under their Great Lakes Restoration Initiative to hire a person for a term of two years to: 1. Complete an assessment of Tribal Land for invasive species 2. Develop a management plan that includes species present on the reservation, those quickly	2	6/10/11	4/30/15	Michigan		
										46.432178	-84.531555
2012	\$ 565,317	Increase	Remediation and Restoration of Contaminated Sediments	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service (USFWS) will continue to work with state and local partners to identify and eliminate the effects of contaminants on Great Lakes ecosystems. Funded projects will identify and implement habitat enhancement and restoration opportunities to guide remediation. Beneficial Use Impairments (BUIs) addressed through these projects include: 1) Loss of Fish and Wildlife Habitat; 2) Degraded Fish and Wildlife Populations; 3) Degradation of Benthos; and 4) Fish Tumors and Deformities.	1	4/10/12	4/9/16	Multi-State		
										44.839884	-93.293133
2012	\$ 141,683	New Project	Feasibility Study and Engineering Design Work for the Removal of the Alcott Street Dam	U.S. Fish and Wildlife Service Direct Implementation	This project will enable the USFWS East Lansing Field Office (ELFO) to collaborate with the Michigan Department of Environmental Quality (MDEQ) to develop the Feasibility Study (FS) and engineering design for the removal of Alcott Dam located at the former Bryant Mill Pond immediately south of Alcott Street Bridge in the City of Kalamazoo. The site which resides in the Kalamazoo River Area of Concern (AOC) is approximately three miles upstream from Portage Creek's confluence with the Kalamazoo River. Support for the FS would subsequently leverage resources necessary for the removal of the Alcott Street dam, and will contribute toward removal	1	4/10/12	4/9/16	Michigan		
										42.621834	-86.253662
2012	\$ 298,000	Increase	40th Avenue West Habitat Complex Focused Feasibility Study	U.S. Fish and Wildlife Service Direct Implementation	This project will develop a Focused Feasibility Study to evaluate limiting factors in the project area, including contaminated sediments and degraded fish and wildlife habitats, ecological and stakeholder desires, as well as construction alternatives. The project will develop and evaluate remediation and restoration alternatives necessary to achieve a construction-ready status for select management units. Continuing work on the project in the 40th Ave West Habitat Complex with existing local and state partners contributes to the progress towards removing of Beneficial Use Impairments (BUIs) and the goal of delisting the St. Louis River as an AOC, and serves as a model for similar efforts in the	1	4/10/12	4/9/16	Minnesota		
										46.792538	-92.04895

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2012	\$ 200,000	New Project	Niagara River Bird and Herptile Population Project	U.S. Fish and Wildlife Service Direct Implementation	The purpose of this project is to evaluate delisting criteria related to birds and herptiles for the Degradation of Fish and Wildlife Populations Beneficial Use Impairment. Depending on the approach detailed in the work plan, the study will likely include reconnaissance and preliminary field work during CY2013. This is the first phase of a multi-year BUI evaluation project.	1	4/10/12	4/9/16	New York		43.064875	-78.997192
2012	\$ 40,000	New Project	Rochester Wetlands Project	U.S. Fish and Wildlife Service Direct Implementation	This assessment will determine whether wetlands within, and adjacent to, the REAOC have declined either in size or condition. The geographic scope of this study is defined as the entire REAOC. Sections of at least 20 wetlands that have been mapped by federal and state agencies are within this geographic area. These wetlands comprise the set of potential subject wetlands for this assessment.	1	4/10/12	4/9/16	New York		43.325178	-77.557983
2012	\$ 94,500	New Project	Re-Connecting Lakes Erie's Wetlands	U.S. Fish and Wildlife Service Direct Implementation	This project will support and supplement currently funded projects on the Ottawa National Wildlife Refuge (ONWR) lands in the Maumee AOC that restore and enhance 512 acres of wetland and upland habitats and reconnect 127 of those acres to Lake Erie. The project includes pre- and post-monitoring, reconnection of additional wetlands, and restoration of riparian habitats.	1	4/10/12	4/9/16	Ohio		41.75902	-83.452148
2012	\$ 47,500	New Project	Swan Creek River and Floodplain Restoration	U.S. Fish and Wildlife Service Direct Implementation	This project will support design and subsequent restoration of a large area of riparian habitat currently in agricultural use. Conservation easements will be acquired and a minimum of 8 acres within a 30 acre floodplain along Swan Creek in the Maumee AOC will be restored and enhanced. This project will include riparian and wetland restoration, vernal pool creation, stream bank stabilization, and removal of exotic species and will further link preserved habitat in the globally rare Oak Openings Region.	1	4/10/12	4/9/16	Ohio		41.763117	-83.435669
2012	\$ 153,000	New Project	Pickle Pond Baseline Characterization and Restoration Design	U.S. Fish and Wildlife Service Direct Implementation	The proposed project will 1) characterize the physiochemical make-up of Pickle Pond, including sediment chemistry, depth contours, sediment particle size, and sediment type characterization, 2) inventory the biological communities occupying Pickle Pond and the surrounding area by sampling benthic invertebrates, fish, herptiles, migratory waterfowl, and vegetation, and 3) design restoration plan alternatives based on those attributes and input from local stakeholders and state and federal agencies. The result of these efforts will be design alternatives that are ready to inform future focused feasibility studies and implementation.	1	4/10/12	4/9/16	Wisconsin		46.75868	-92.010498
2012	\$ 237,388	Increase	Risk Assessment Program, USFWS	U.S. Fish and Wildlife Service Direct Implementation	This project will continue an aquatic invasive species risk assessment program to develop and implement a rapid screening process to assess the risk of establishment and significant, negative impacts of species: 1) imported and traded within the Great Lakes Basin and 2) That may benefit from Great Lakes habitat restoration and enhancement under the Great Lakes Restoration Initiative (As requested by other Federal, and Regional [e.g., Great Lakes Fishery Commission], State, Tribal, and local governments, industries, and nongovernmental organizations).	2	4/10/12	4/9/16	Minnesota		44.858242	-93.354092
2012	\$ 1,438,275	Increase	Early warning to identify effects of new contaminants	U.S. Fish and Wildlife Service Direct Implementation	USFWS will work with the USGS and state and local partners, to identify new potential contaminants in tributary and nearshore areas before they move into and impact the lakes. This project will include field sampling and laboratory analyses to evaluate toxicity and potential impacts of emerging contaminants on Great Lakes fish and wildlife populations.	1	4/10/12	4/9/16	Multi-State		44.839884	-93.283133
2012	\$ 80,250	Increase	Analysis of Contaminants of Emerging Concern in Herring Gull Eggs in the Great Lakes	U.S. Fish and Wildlife Service Direct Implementation	The East Lansing Field Office (ELFO) Environmental Contaminants (EC) Program will work with partners to analyze a representative sub-sample or aliquot of archived herring gull egg composites from selected colonies sampled in the U.S. since the inception of herring gull egg collection in the U.S. The list of analytes will be coordinated with Canadian Wildlife Services and Environment Canada based on their latest findings in the eggs they have most recently analyzed. The proposed sites from which composited eggs will be analyzed include those from colonies in Lake Superior (Net Island, Huron Island, Tahouamenon), Lake Huron (5 mile Island, West Twin Pipe), Lake	1	4/10/12	4/9/16	Michigan		43.767127	-83.748779
2012	\$ 10,290	Increase	Early Warning Program to Detect and Identify Contaminants of Emerging Concern-MI	U.S. Fish and Wildlife Service Direct Implementation	The East Lansing Field Office will complete sampling in the Detroit River to determine whether emerging contaminants are present at concentrations of concern specifically in the lower portion of the Detroit River and, more generally, likely to be of concern out into Lake Erie or in water bodies similarly influenced by metropolitan wastewater discharges. The Detroit River, Rouge River and Raisin River Areas of Concern (AOCs) in southeastern Michigan are all part of the Detroit River watershed and all have Beneficial Use Impairments (BUIs) that relate directly to U.S. Fish and Wildlife Service (Service) trust interests.	1	4/10/12	4/9/16	Michigan		42.183759	-83.139038

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2012	\$ 16,450	Increase	Early Warning Program to Detect and Identify Contaminants of Emerging Concern to Fish and Wildlife-MN	U.S. Fish and Wildlife Service Direct Implementation	This project will evaluate exposure and effects of contaminants of emerging concern (CEC) on aquatic resources in the St. Louis River, MN. Sampling and other field protocols, assays, and analytical parameters will follow those established for the Early Warning Program to Detect and Identify Emerging Contaminants and Their Effects to Fish and Wildlife (March 2010).	1	4/10/12	4/9/16	Minnesota		46.762443	-92.032471
2012	\$ 27,514	Increase	Early Warning Program to Detect and Identify Contaminants of Emerging Concern to Fish and Wildlife	U.S. Fish and Wildlife Service Direct Implementation	USFWS New York Field Office (NYFO) environmental contaminant specialists will work with partners to identify emerging contaminants of concern and prioritize biological sampling in selected areas within the Genesee River basin, including the Rochester Embayment Area of Concern (AOC) and adjacent embayments. Sampling will also take place at reference locations within the Genesee River basin. Media to be sampled include water, sediment, and fish.	1	4/10/12	4/9/16	New York		43.305194	-77.574463
2012	\$ 19,200	Increase	Early Warning Program to Detect and Identify Contaminants of Emerging Concern to Fish and Wildlife-OH	U.S. Fish and Wildlife Service Direct Implementation	USFWS environmental contaminants (EC) specialists in the Columbus Ohio Ecological Services Office will collect water, sediment, and fish at key locations in the Maumee River. Laboratory and field studies will measure concentrations of contaminants not currently or poorly regulated, with expanded or altered distribution, or that have been recently detected. These data will be used to evaluate effects and sources, identify pathways, and recommend controls or regulations that will provide protection for Service trust resources in Lake Erie and its tributaries.	1	4/10/12	4/9/16	Ohio		41.771312	-83.40271
2012	\$ 8,021	Increase	Early Warning Program to Detect and Identify Contaminants of Emerging Concern to Fish and Wildlife-WI	U.S. Fish and Wildlife Service Direct Implementation	This project will continue the efforts of the program by obtaining water, sediment, and fish samples in Wisconsin within the Fox River Watershed. This year, sampling sites will be more focused on specific land uses, point, and non-point sources to better meet the objectives of the program.	1	4/10/12	4/9/16	Wisconsin		44.621754	-88.143311
2012	\$ 370,870	New Project	Burnham Wildlife Corridor	Chicago Park District	The Chicago Park District and partners will restore and enhance native habitat for migratory songbirds along a 3.6 mile stretch (totaling 60 acres) of Lake Michigan Coastline in the city of Chicago. (Millenium Reserve)	4	4/10/12	4/9/16	Illinois		41.833268	-87.603436
2012	\$ 27,000	New Project	South Shore Park Nature Sanctuary	Chicago Park District	The Chicago Park District will enhance habitat for migratory songbirds through complete removal of invasive plant species, and replace with a dense planting of native woody and herbaceous species on one acre of Lake Michigan Coastline. Upon completion this will be a part of a larger 5-acre Nature Sanctuary. (Millenium Reserve)	4	4/10/12	4/9/16	Illinois		41.767993	-87.559659
2012	\$ 365,000	New Project	Restoring and Connecting Natural and Human Communities in Calumet	Forest Preserve District of Cook County	The Forest Preserve District of Cook County will restore approximately 160 acres of diverse coastal ecosystems in the Calumet area, and will work with the Bronzeville Historical Society and Audubon Chicago Region to hire interns to develop stewardship connections between Calumet neighborhoods and nature preserves. (Millenium Reserve)	4	4/10/12	4/9/16	Illinois		41.614929	-87.561722
2012	\$ 250,000	New Project	Lake George Wetlands Restoration	Indiana Department of Natural Resources	The Indiana Department of Natural Resources will restore and enhance 59 acres of Lake Michigan coastal wetlands by removing dense invasive plant species at Lake George. (Millenium Reserve)	4	4/10/12	4/9/16	Indiana		41.4	-87.3
2012	\$ 145,000	New Project	Minnesota Land Trust and Coastal Program Planning and Design	Minnesota Land Trust	MLT will contract the services of qualified engineering and environmental consulting firms to complete: 1) engineering design documents (construction drawings, cost estimates and bid packages) and 2) necessary environmental review documentation and permit applications.	4	4/10/12	4/9/16	Minnesota		44.57	-93.11

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2012	\$ 100,000	New Project	Marine City Reef Rehabilitation	Michigan Wildlife Conservancy	Construct an artificial reef to restore native fish habitat in the St. Clair River near Marine City Michigan, specifically to benefit lake sturgeon populations.	4	4/10/12	4/9/16	Michigan		
										42.43	-82.29
2012	\$ 20,000	New Project	Wilderness State Park Vegetation Monitoring for Piping Plover	U.S. Geological Survey	Vegetation monitoring at Wilderness State Park associated with below habitat restoration. USGS to provide technical assistance with design and data analysis	4	4/10/12	4/9/16	Michigan		
										45.45	-84.51
2012	\$ 47,000	New Project	Piping Plover conservation at Multiple Sites in Michigan's Upper Peninsula	Superior Watershed Partnership	Control invasive species at U.P. piping plover nesting sites - Grand Marais, Gulliver, Pt. Aux Chenes, Port Inland, Indian Point, and Vermilion	4	4/10/12	4/9/16	Michigan		
										46.35	-87.23
2012	\$ 166,856	New Project	Removal of Lyons Dam (Grand River) in Ionia County, Michigan	U.S. Fish and Wildlife Service Direct Implementation	The proposed project is to remove the 280 ft wide Lyons Dam and fish ladder on the Grand River in Lyons, Michigan. The dam and fish ladder structures are in serious need of repair or need to be removed.	4	4/10/12	4/9/16	Michigan		
										46.527454	-92.509518
2012	\$ 35,714	New Project	Winston Road Culvert Replacement on Carleton Creek (White River) in Oceana County, MI	U.S. Fish and Wildlife Service Direct Implementation	The primary objective of replacing the existing Winston Road culvert is to restore the headwaters of Carleton Creek to a fully functioning, free flowing system.	4	4/10/12	4/9/16	Michigan		
										46.527454	-92.509518
2012	\$ 100,000	Increase	Status and distribution of coaster brook trout in the Lake Superior Basin	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will work with its partners, including state, Tribal, and other federal agencies, to collect data on brook trout at a subwatershed level. Information will be used to improve existing records of the status and distribution of coaster brook trout in the Lake Superior Basin.	4	4/10/12	4/9/16	Wisconsin		
										46.604049	-90.858994
2012	\$ 285,714	New Project	This project will restore aquatic connectivity and fish Passage in the Milwaukee River Watershed (Sandhill Creek and Mole Creek)	U.S. Fish and Wildlife Service Direct Implementation	The proposed objective is to reconnect aquatic habitats in the Milwaukee River Watershed to help bolster the sustainability and/or population recovery of remnant desirable, native, and/or imperiled fish species. Improved connectivity will provide these species with access to critical, high quality spawning and rearing habitat upstream of existing, documented impediments.	4	4/10/12	4/9/16	Wisconsin		
										46.527454	-92.509518
2012	\$ 411,716	Increase	Fish Passage Coordination and Planning	U.S. Fish and Wildlife Service Direct Implementation	U.S. Fish and Wildlife Service Fish Passage Biologists in field offices throughout the basin will work with partners to develop and implement high priority GLRI fish passage projects to restore aquatic connectivity in the Basin.	4	4/10/12	4/9/16	Multi-State		
										44.839884	-93.283133
2012	\$ 141,000	New Project	Maumee AOC Wetland Project	Ottawa SWCD	Restore and enhance 129 acres of emergent wetlands on two properties in the Maumee Area of Concern.	4	4/10/12	4/9/16	Ohio		
										41.581296	-83.068829

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2012	\$ 289,275	New Project	Roderick Reserve Expansion: Phase III	Western Pennsylvania Conservancy	Protect 100 acres of wetland and upland habitat adjacent to the Roderick Wildlife Area in Erie County, PA along the Lake Erie shoreline.	4	4/10/12	4/9/16	Pennsylvania		
										41.977103	-80.461121
2012	\$ 150,000	Increase	U.S. Fish and Wildlife Service LaMP Coordination and Implementation	U.S. Fish and Wildlife Service Direct Implementation	This program supports Fish and Wildlife Service expertise, capacity, and support for the Great Lakes Lakewide Programs in the implementation of Lakewide Management Plans, their associated goals, objectives, and targets for the Great Lakes. This includes coordinated science and monitoring initiatives and projects.	5	4/10/12	4/9/16	Multi-State		
										46.649436	-90.780029
2012	\$ 14,142	New Project	Conservation Management Plan for the Bog Turtle	U.S. Fish and Wildlife Service Direct Implementation	Development and Completion of a Conservation Management Plan for the Bog Turtle in the Prairie Peninsula Lake Plains Recovery Unit of New York State	4	4/10/12	4/9/16	New York		
										43.480826	-76.481323
2012	\$ 155,000	New Project	Recovery of Piping Plover at Wilderness State Park	U.S. Fish and Wildlife Service Direct Implementation	Demonstration project in cooperation with the Michigan Department of Natural Resources - habitat improvement through vegetation removal and addition of cobble/debris to encourage plover nesting at Wilderness State Park	4	4/10/12	4/9/16	Michigan		
										42.779275	-84.473877
2012	\$ 40,000	Increase	Piping Plover Recovery	U.S. Fish and Wildlife Service Direct Implementation	The University of Minnesota, a longtime partner of the Service in Piping plover conservation, will implement nest protection, salvage of orphaned eggs, and captive rearing and release.	4	4/10/12	4/9/16	Michigan		
										42.734909	-84.396973
2012	\$ 35,453	Increase	Comprehensive Multi-Species Status Assessments: Acquiring Contemporary Information for Recovery Planning and Five-Year Reviews	U.S. Fish and Wildlife Service Direct Implementation	USFWS biologists will work with partners to conduct Comprehensive Multi-Species Status Assessments: Acquiring Contemporary Information for Recovery Planning and Five-Year Reviews	4	4/10/12	4/9/16	Michigan		
										42.775243	-84.468384
2012	\$ 60,000	Increase	Kirtland's Warbler Recovery	U.S. Fish and Wildlife Service Direct Implementation	Conservation planning under MOU between Michigan DNR, USFS, and USFWS to guide future KW protection and management. This will assure that the species can be delisted and threats addressed.	4	4/10/12	4/9/16	Michigan		
										46.070372	-85.608215
2012	\$ 15,000	Increase	Kirtland's Warbler Recovery through control of nest parasitism	U.S. Fish and Wildlife Service Direct Implementation	Cooperative project with USDA-APHIS cowbird control	4	4/10/12	4/9/16	Michigan		
										44.563077	-85.968018
2012	\$ 60,000	Increase	Recovery of Piping Plover in Michigan	U.S. Fish and Wildlife Service Direct Implementation	field office staff work completing nest protection activities, habitat enhancement and protection	4	4/10/12	4/9/16	Michigan		
										42.767179	-84.49585

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2012	\$ 3,000	New Project	Piping Plover Recovery in New York	U.S. Fish and Wildlife Service Direct Implementation	NYFO field work to protect nesting piping plover	4	4/10/12	4/9/16	New York		
										42.549034	-79.161987
2012	\$ 128,064	New Project	Restoring critical habitat, mitigating multiple threats in Bergen Swamp	U.S. Fish and Wildlife Service Direct Implementation	This project will benefit the ecosystem that supports bog turtle, eastern massasauga rattlesnake, and houghton's goldenrod, Genesee Co., NY	4	4/10/12	4/9/16	New York		
										43.436966	-76.508789
2012	\$ 63,250	Increase	Assisting Pitcher's Thistle and Piping Plover Recovery in Wisconsin	U.S. Fish and Wildlife Service Direct Implementation	control of invasive spotted knapweed and winged pigweed	4	4/10/12	4/9/16	Wisconsin		
										43.524655	-87.907104
2012	\$ 69,500	Increase	Hine's Emerald Dragonfly Recovery Through Wetland Management and Habitat Improvement	U.S. Fish and Wildlife Service Direct Implementation	Green Bay Field Office biologists will work on private lands in NE Wisconsin to protect and restore important habitats for protected species.	4	4/10/12	4/9/16	Wisconsin		
										43.822638	-88.044434
2012	\$ 123,284	Increase	River Dam Removal: Phase 1-Brown Bridge Dam (LM-2-11)	Conservation Resource Alliance	The overall proposed project involves removing three dams and modifying a fourth which are barriers to fish and aquatic species passage. When implemented, there will be a resultant improvement in in-stream and river corridor habitat for fish and wildlife, restoration of natural woody debris recruitment and transport regimes, and temperature regimes negatively affected by the impoundments behind the dams. The approach going forward is technical in nature, relying on a wide variety of disciplines and involves holistic, watershed-scale restoration of natural stream and corridor function and configuration.	4	4/10/12	4/9/16	Michigan		
										44.64362	-85.509381
2012	\$ 74,984	New Project	Fish Habitat Enhancement project at Lake Shore Marshes Wetland Management Area (WMA)	Ducks Unlimited	The project will restore hydrologic function, improve fish migration, and enhance spawning, nursery, and rearing habitat within two coastal marsh systems (Red Creek and Beaver Creek marshes) at Lake Shore Marshes WMA. The project will create 2.5 acres of shallow, open-water areas and 3,000 feet of channel within the vegetate coastal marshes for the benefit of northern pike and other warmwater fish species.	4	4/10/12	4/9/16	New York		
										43.32318	-76.753063
2012	\$ 140,000	New Project	Rifle River Watershed Restoration Project	Huron Pines	This project will replace culverts that restrict stream flow, implement best management practices to address sediment input from erosion sites, and restore instream and riparian habitat along the Rifle River. Approximately 12 miles of trout stream will be reconnected, 2,500 linear feet of riparian buffer will be installed and six high priority streambank erosion sites will be restored to remove harmful sediment from the system.	4	4/10/12	4/9/16	Michigan		
										43.03	-82.47
2012	\$ 500,000	New Project	Brown Bridge Restoration and Sediment Management	Conservation Resource Alliance	In conjunction with removal of the uppermost dam at Brown Bridge in 2012, the project team will actively manage sediment and restore the channel and floodplain. The project will minimize downstream habitat impacts, and accelerate natural restoration of the Boardman River to a pre-dam condition.	4	4/10/12	4/9/16	Michigan		
										44.645697	-85.510712
2012	\$ 202,423	New Project	Shiawassee River State Game Area Wildlife - Michigan	Ducks Unlimited	This project will restore and protect wetland management capacity and allow for control of invasive species on 1,238 acres of critical waterfowl habitat at the Shiawassee River State Game Area. Replacing a pump station and associated structures will result in enhanced wetlands for benefits to wildlife, fish, and recreational users.	4	4/10/12	4/9/16	Michigan		
										43.291201	-84.103088

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2012	\$ 179,391	New Project	State and Federal Refuge Protection Buffers in the Southwest Lake Erie Phase 3	Ducks Unlimited	Ducks Unlimited will bring together the interests of state wildlife agencies, private organizations and federal agencies to permanently protect parcels buffering publically owned state and federal wildlife areas located in the Southwest Lake Erie Region (Michigan, Ohio). In conjunction with ongoing protection and restoration efforts this multi-state project will provide connectivity and high quality habitat to sustain and attract wildlife.	4	4/10/12	4/9/16	Ohio		
										41.692884	-83.342457
2012	\$ 483,945	Increase	Monitoring and Mapping Avian Resources	Great Lakes Commission (representing states of Wisconsin, Michigan, Illinois, Indiana, Ohio and New York)	This project will answer the question: How do birds use the shoreline and offshore areas of the Great Lakes, and how can this information be used to evaluate the potential impact of proposed offshore wind projects on migratory birds? This project will make significant contributions to help to fill critical data gaps about bird distribution and abundance in the nearshore and open water that can inform future permit decisions for offshore wind in addition to conservation planning.	4	4/10/12	4/9/16	Michigan	45.2825	-82.555
2012	\$ 17,736	New Project	River Care - A Framework for Restoring Stream Connectivity and Habitat in the Upper Great Lakes	River Care	This project represents the second phase of an initiative to restore connectivity and improve habitat in over 5,000 miles of the highest quality streams feeding the Great Lakes (eg. Manistee, Black, Maple, Betsie, Pere Marquette, and Jordan rivers). In-stream habitat projects will be implemented at an estimated 5 sites in critical riparian corridors.	4	4/10/12	4/9/16	Michigan	44.766237	-85.635681
2012	\$ 400,000	Increase	Conservation of Great Lakes Islands	U.S. Fish and Wildlife Service Direct Implementation	This project focuses on the protection of Great Lakes island habitat and coastal habitats that are important to endemic, threatened and endangered species and migratory birds. Island ecosystems are threatened by recreational over-use, increased development and invasive species. This project includes inventory of habitats and land acquisition by the National Wildlife Refuge System.	4	4/10/12	4/9/16	Michigan	42.764469	-84.515312
2012	\$ 283,128	New Project	Allegan SGA Wetland Restoration Project	Ducks Unlimited - Great Lakes Office	Restore and/or enhance 150 acres of wetland habitat on two units of the Allegan State Game Area, via disruption of subsurface drainage tiles, and installation of water control structures, a pump, and creation of a low-level berm.	4	4/10/12	4/9/16	Michigan	42.529049	-86.102257
2012	\$ 144,584	New Project	St. Lawrence Valley Habitat Protection and Enhancement	Ducks Unlimited Inc.	Protect, restore and enhance 242 acres of predominantly grassland habitat in the St. Lawrence Plain Focus Area of New York	4	4/10/12	4/9/16	New York	44.17137	-76.206665
2012	\$ 59,750	New Project	Future changes in weather extremes derived from statistically downscaled climate projections for the Great Lakes region	Nelson Institute Center for Climatic Research, University of Wisconsin-Madison	This project will analyze the frequency and intensity of extreme weather events across the Great Lakes region using a new statistically downscaled climate product produced by the Climate Working Group of the Wisconsin Initiative on Climate Change Impacts (WICCI). Probabilistic exploration of weather extremes will be performed and tailored toward decision-makers who are developing impact assessments at a regional scale across the Great Lakes region.	4	4/10/12	4/9/16	Multi-State	42.718	-84.55
2012	\$ 220,616	Increase	Develop a comprehensive information management framework	The Nature Conservancy-MI	The Nature Conservancy and U.S. Geological Survey, working with partners, will develop a shared Great Lakes information management and delivery system to help support the mission of the Upper Midwest/Great Lakes (UMGL) Landscape Conservation Cooperative (LCC). The LCCs are intended to operationally support the concept of strategic habitat conservation, which is an adaptive management framework focused on informing decisions to help get the right conservation practices to the right places.	4	4/10/12	4/9/16	Multi-State	45.10455	-87.63245
2012	\$ 500,000	Increase	Great Lakes Wind Power: Making it Migratory Bird and Bat Friendly	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service will identify areas where wind development can be safely done and areas where it is likely to have the most negative impacts on birds or bats. Knowledge gained will be useful in protecting areas important to migrating birds from other habitat impacts. Information will help to identify key areas throughout the Great Lakes that are critical to the many bird and bat species that migrate across and around the Great Lakes.	4	4/10/12	4/9/16	Minnesota	45.2825	-82.555

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2012	\$ 1,000,000	Increase	Integrated Pest Management for priority species, Early Detection and Rapid Response	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service (USFWS) will continue implementation of a Great Lakes Aquatic Invasive Species Integrated Management Program for priority Great Lakes species to implement rapid response control and management programs. USFWS invasive species specialists will assess the effectiveness of those programs and adapt them as needed. Response, monitoring, and control efforts will be focused on existing and potential Asian carp populations in Illinois and Indiana tributaries to Lake Michigan.	2	4/10/12	4/9/16	Multi-State		44.51	-93.16
2012	\$ 165,000	Increase	Maintain and enhance lake trout production capabilities at Iron River National Fish Hatchery	U.S. Fish and Wildlife Service Direct Implementation	Great Lakes Restoration Initiative funds allowed for additional salaries for lake trout restoration and production in the upper Great Lakes. Additional fish food for lake trout rearing and fish culture equipment to aid in fish production was also purchased. This funding was instrumental in supported additional fingerling lake trout production and for additional development of the Superior Klondike Reef (SKW) strain of lake trout. This strain is being produced to augment the diversity of stocks currently being cultured for stocking the Great Lakes.	4	4/10/12	4/9/16	Multi-State	46.658391		-91.373978
2012	\$ 40,000	Increase	Determining presence of EEDv and other viruses in lake trout in the Great Lakes	U.S. Fish and Wildlife Service Direct Implementation	The viral disease EED caused large-scale mortalities of lake trout in Great Lakes regional fish hatcheries in the late 1980's. Recently, the virus has been detected in wild populations of fish and has been attributed to mortalities at one state fish hatchery. PCR techniques were used to test test 60 fish for EEDv from hatchery and wild fish submitted by the Wisconsin DNR and 31 fish from wild fish populations Lake Superior. Six fish tested positive from the Apostle Islands, Lake Superior (WI DNR samples) by PCR.	4	4/10/12	4/9/16	Multi-State	43.874618		-91.197767
2012	\$ 253,000	Increase	Distribution of hatchery lake trout and completion of fishery assessments using the M/V Spencer F. Baird (Baird)	U.S. Fish and Wildlife Service Direct Implementation	The MV Baird distributed over 3.9 million hatchery raised lake trout to offshore areas of Lakes Huron and Michigan. The Baird embarked on 33 stocking trips over an 80 day season and traveled a total of 2,920 miles.	4	4/10/12	4/9/16	Multi-State	45.648188		-84.472246
2012	\$ 1,941,748	Increase	Hatchery infrastructure improvements and construction USFWS Midwest Region	U.S. Fish and Wildlife Service Direct Implementation	This project includes improvements and upgrades at National Fish Hatcheries to increase fish production and fish rearing capabilities at all of these facilities, as well as improve the water quality of point source discharge from two of these facilities.	4	4/10/12	4/9/16	Multi-State	46.448266		-84.82132
2012	\$ 488,867	Increase	Lake Huron Lake Trout and Lake Sturgeon Restoration Activities at the Alpena Fish and Wildlife Conservation Office	U.S. Fish and Wildlife Service Direct Implementation	USFWS Alpena, MI Fish and Wildlife Conservation Office will conduct lake trout spawning surveys at mid-lake reefs and juvenile survival surveys in two northern Lake Huron management units in Treaty waters, perform lake trout stock assessment modeling analyses, and evaluate progress in meeting goals of lake trout rehabilitation efforts.	4	4/10/12	4/9/16	Multi-State	45.067701		-83.432922
2012	\$ 403,788	Increase	Lake Michigan Lake Trout and Lake Sturgeon Restoration Activities at Green Bay Fish and Wildlife Conservation Office	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Green Bay Fish and Wildlife Conservation Office will provide leadership, coordination, and field activities (stocking, habitat and population assessments, habitat restoration and enhancements) to achieve rehabilitation objectives for lake sturgeon and lake trout in Lake Michigan, as defined in fishery management and conservation plans.	4	4/10/12	4/9/16	Multi-State	44.643743		-88.046494
2012	\$ 77,650	Increase	Lake Sturgeon Restoration Initiative in the Great Lakes: Streamside Rearing Program	U.S. Fish and Wildlife Service Direct Implementation	Project includes the construction and placement of a streamside rearing unit in a localized watershed of Lake Michigan to increase juvenile recruitment and safeguard dwindling populations of localized river specific sturgeon strains.	4	4/10/12	4/9/16	Multi-State	44.879884		-93.243133
2012	\$ 403,788	Increase	Lake Trout and Lake Sturgeon Restoration Activities at Ashland Fish and Wildlife Conservation Office	U.S. Fish and Wildlife Service Direct Implementation	Continued leadership, coordination, and field activities to achieve rehabilitation objectives for lake sturgeon rehabilitation n Lake Superior. Ashland FWCO also worked with NPS to assess Lake trout genetics and phenotype at Isle Royale National Park	4	4/10/12	4/9/16	Multi-State	46.597562		-90.883026

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2012	\$ 290,000	Increase	Maintain and enhance lake trout production capabilities at Jordan River NFH.	U.S. Fish and Wildlife Service Direct Implementation	This project will expand fish production levels at Jordan River NFH during FY 2012. 50,000 additional lake trout yearlings and > 200K fingerlings over 2009 levels will be stocked in FY2013 to help meet restoration and Consent Decree goals for the Great Lakes. This project will modernize fish production technologies at the hatchery in furtherance of lake trout restoration goals.	4	4/10/12	4/9/16	Multi-State		
										45.022825	-84.93084
2012	\$ 150,000	Increase	Maintain and enhance lake trout production capabilities at Pendills Creek NFH	U.S. Fish and Wildlife Service Direct Implementation	At Pendills Creek NFH, GLRI funds were used to support production of over 1 million yearling lake trout, directly increasing the facilities ability to culture high quality lake trout for Lakes Michigan and Huron.	4	4/10/12	4/9/16	Multi-State		
										46.448266	-84.82132
2012	\$ 75,000	Increase	Maintain USFWS Midwest Region Aquatic Species Isolation Facility	U.S. Fish and Wildlife Service Direct Implementation	Eggs of valuable Klondike Reef strain lake trout were collected from wild spawned fish in 2011 and are currently being isolated in the Region 3 isolation facility through the summer of 2013. This strain is being held and tested in the facility and will be transferred to Regions 3 and 5 captive broodstations in the summer of 2013 pending successful results from 3 fish health exams. This strain is highly valued in deepwater habitats of Lakes Huron and Michigan as these habitats fish populations have been underutilized by large predator fish since the collapse of these deepwater strains due to the introduction of sea lamprey in the early 1900's. They have also been found to	4	4/10/12	4/9/16	Multi-State		
					The U.S. Fish and Wildlife Service, Office of Law Enforcement will support the pursuit of criminal investigations focused on illegal take of Great Lakes lake trout and lake sturgeon populations.	4	4/10/12	4/9/16	Multi-State	43.563352	-91.228065
2012	\$ 266,990	Increase	Restoration of Lake Trout and Lake Sturgeon Law Enforcement	U.S. Fish and Wildlife Service Direct Implementation						44.869884	-93.23133
2012	\$ 129,000	Increase	Determination of VHS virus prevalence and geographical distribution in the Lower Great Lakes Basin	U.S. Fish and Wildlife Service Direct Implementation	A new, highly virulent strain of Viral Hemorrhagic Septicemia virus (VHSV) has recently been detected in wild fish in the Great Lakes Basin. Outbreaks have caused massive fish kills in a broad range of freshwater fish species. Investigations through cooperative surveys across the Lower Lakes basin (Lakes Ontario and Erie) from a wide array of species will be coordinated and led by the U.S. Fish and Wildlife Service. Information will assess the risk to cultured and wild fish across the country.	4	4/10/12	4/9/16	Multi-State		
										43.299197	-77.571716
2012	\$ 97,400	Increase	Lake trout and lake sturgeon assessment and research activities in the lower Niagara River	U.S. Fish and Wildlife Service Direct Implementation	This project will assess Lake sturgeon in the lower Niagara river through a combination of mark-recapture, radio telemetry, catch-per-unit-effort indices, reproductive physiology assessment and age and growth determination. Lake trout will be assessed through radio telemetry and genetic analysis of both adult and juvenile fish. In addition, experiments for refinement of lake trout bioenergetics models and comparison of energetics between morphotypes is being conducted at the USFWS Northeast Fishery Center.	4	4/10/12	4/9/16	New York		
										43.232697	-79.053497
2012	\$ 257,349	Increase	Lake Trout and Lake Sturgeon Restoration Activities in the Lower Great Lakes	U.S. Fish and Wildlife Service Direct Implementation	The U.S. Fish and Wildlife Service Lower Great Lakes Fish and Wildlife Conservation Office is continuing assessment of lake trout and lake sturgeon in the Niagara River and Niagara Bar. This includes habitat use and mapping, population assessment, and lower trophic level assessment. This is a collaborative project with the U.S. Fish and Wildlife Northeast Fishery Center.	4	4/10/12	4/9/16	New York		
										43.203174	-79.050751
2012	\$ 80,948	Increase	Lower Great Lakes Lower Trophic Monitoring Program	U.S. Fish and Wildlife Service Direct Implementation	The USFWS Lower Great Lakes Fish and Wildlife Conservation Office will monitor and evaluate key lower trophic variables (phosphorus, chlorophyll a, secchi depth and zooplankton density and biomass) that characterize overall ecosystem change spatially, temporally and by habitat types. Collections will occur at 18 stations in Lake Erie and 12 stations in Lake Ontario from May through October.	4	4/10/12	4/9/16	New York		
										43.032761	-78.811798
2012	\$ 1,453,398	Increase	Mass Marking of Great Lakes and Salmon	U.S. Fish and Wildlife Service Direct Implementation	This project funds were used to purchase tags, hire two additional trailer operators and support staff, and tag 4.6 million federally reared lake trout and 4.8 million state reared salmon. Additionally staff were hired to assist the New York Department of Environmental Conservation in their tag and recovery program on Lake Ontario.	4	4/10/12	4/9/16	Multi-State		
										45.560218	-85.946045

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2012	\$ 17,500	Increase	Partners for Fish and Wildlife - Indiana	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	4/10/12	4/9/16	Indiana		
										41.689322	-86.879883
2012	\$ 160,000	Increase	Partners for Fish and Wildlife - Michigan	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	4/10/12	4/9/16	Michigan		
										44.111254	-83.677368
2012	\$ 83,965	Increase	Partners for Fish and wildlife - New York	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	4/10/12	4/9/16	New York		
										43.253205	-76.92627
2012	\$ 61,500	Increase	Partners for Fish and Wildlife - Ohio	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	4/10/12	4/9/16	Ohio		
										41.640078	-83.38623
2012	\$ 70,162	Increase	Partners for Fish and Wildlife	U.S. Fish and Wildlife Service Direct Implementation	Partners for Fish and Wildlife is a voluntary habitat restoration program of the U.S. Fish and Wildlife Service. The PFW Program works with landowners and other partners to restore habitat on private lands. Focus is on restoring wetlands and grasslands to benefit migratory birds and federally-listed threatened and endangered species. The basin-wide program goal for GLRI is to restore 500 acres of wetlands and 500 acres of grasslands.	4	4/10/12	4/9/16	Wisconsin		
										44.496505	-87.945557
2012	\$ 901,092	Increase	Implementing Michigan's Comprehensive State Management Plan for Non-indigenous Aquatic Nuisance Species	Michigan Department of Environmental Quality	In the first year of the Aquatic Invasive Species (AIS) program, Michigan will establish a more formal, cohesive AIS program, update the state management plan, and implement selected top priority actions in the plan. Funding will be used primarily to support state staff to build program capacity. In subsequent years, a portion of the funds will be used for projects for which competitive funding from the other line items in the GLRI would not be appropriate.	2	4/10/12	4/9/16	Michigan		
										42.73264	-84.560008
2012	\$ 3,122,322	Increase	Asian Carp Framework Projects and Action Items	U.S. Fish and Wildlife Service Direct Implementation	These funds supported our regional efforts to cover many aspects of asian carp monitoring. It included the supporting of current sampling efforts and building infrastructure for eDNA testing, rotenone purchase and storage, participation in rapid response events, planning for sampling and monitoring of juveniles and adults, and hotspot monitoring within the great lakes related to potential inter-basin connectivity.	2	4/10/12	4/9/16	Multi-State		
										41.963575	-87.555542
2012	\$ 901,092	Increase	Implementation of Minnesota ANS Management Plan	Minnesota Department of Natural Resources	The Nonindigenous Aquatic Nuisance Prevention and Control Act, as amended, authorized Federal Support, via U.S. Fish and Wildlife Service, for State and Interstate Aquatic Nuisance Species Management Plans. The State of Minnesota will continue implementation of a state plan for invasive species.	2	4/10/12	4/9/16	Minnesota		
										44.86	-93.253133
2012	\$ 901,092	Increase	Implementation of Wisconsin ANS Management Plan	Wisconsin Department of Natural Resources	The State of Wisconsin will implement priority Great Lakes actions identified in Wisconsin's Comprehensive Management Plan to Prevent Further Introductions and Control Existing Populations of Aquatic Invasive Species.	2	4/10/12	4/9/16	Wisconsin		
										44.538275	-87.882965

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2012	\$ 6,461,813	Increase	Asian Carp Framework Projects and Action Items - States	Illinois Department of Natural Resources, Indiana Department of Natural Resources, Ohio Department of Natural Resources	The State of Illinois will implement priority Great Lakes actions identified in the Illinois State Comprehensive Management Plan for Aquatic Nuisance Species. Activities in FY2012 will be focused on Asian carp, per the Asian Carp Framework Strategy 2012.	2	4/10/12	4/9/16	Illinois		
										41.722131	-87.978516
2012	\$ 901,092	Increase	Implementation of Ohio ANS Management Plan	Ohio Department of Natural Resources	The state of Ohio will implement priorities for early detection, monitoring, and prevention listed in its Aquatic Nuisance Species (ANS) State Management Plan. The environmental attributes of Lake Erie are ideal for many invading species, and, Ohio will focus ANS efforts on species such as zebra mussels, round goby, and Asian carp.	2	4/10/12	4/9/16	Ohio		
										41.458021	-82.713296
2012	\$ 901,092	Increase	Implementation of the Pennsylvania Aquatic Nuisance Species Management Plan	Pennsylvania Fish & Boat Commission	This project will continue the implementation of priority Great Lakes actions included in the Pennsylvania Nonindigenous Aquatic Species Comprehensive Management Plan.	2	4/10/12	4/9/16	Pennsylvania		
										42.03	-80.04
2012	\$ 901,092	Increase	Implementation of the New York State Aquatic Nuisance Species Management Plan	New York State Dept. of Environmental Conservation	This project will continue the implementation of priority Great Lakes actions included in the State of New York's Nonindigenous Aquatic Species Comprehensive Management Plan.	2	4/10/12	4/9/16	New York		
										42.55	-78.48
2012	\$ 951,092	Increase	Implementation of Indiana ANS Management Plan	Indiana Department of Natural Resources	The Indiana Department of Natural Resources will implement plant control and eradication projects with emphasis on newly invading plants, consistent with the Indiana Aquatic Invasive Species Management Plan. Early detection and rapid response projects will primarily focus on Asian carp issues and preventing them from reaching the Great Lakes watershed. Outreach and education will focus on preventing the spread of species.	2	4/10/12	4/9/16	Indiana		
										41.52503	-86.159935
2012	\$ 110,000	New Project	Alger-Marquette (MI) Cross-Border Restoration Project	Alger Conservation District	The Alger Conservation District will replace 4 culverts will restore fish passage to 15 stream miles and reduce sedimentation in the Whitefish, Michigamme, Choccolay and Au Train River watersheds. Purple loosestrife control will reduce the density of this invasive plant by 75% on 14 acres in the Rock, Au Train, Whetstone, and Anna River watersheds.	4	4/10/12	4/9/16	Michigan		
										46.33	-87.25
2012	\$ 50,000	New Project	Milwaukee Volunteer Restoration Project	Alliance for the Great Lakes	The Alliance and partners will preserve coastal habitat at three sites in Milwaukee County. Major restoration work will include invasive species control (289.8 acres), grassland enhancements (32 acres) and native plant installation (48.6 acres). This work will reduce erosion, thereby providing critical coastal refuges within the southern Lake Michigan basin and enhancing the ecological functions of the entire 643 acres of habitat at these sites.	4	4/10/12	4/9/16	Wisconsin		
										43.03	-87.57
2012	\$ 114,200	New Project	In-channel Large Woody Debris & Riparian Forest Restoration (WI)	Bayfield County Land and Water Conservation Department	The project will restore the lowest 1.25 miles of Whittlesey Creek by installing 300 logs in the stream channel and planting 10 riparian acres with 5,000 native conifer seedlings. This work is a critical component of coaster brook trout restoration efforts and complements previous restoration in adjacent upstream reaches of Whittlesey Creek.	4	4/10/12	4/9/16	Wisconsin		
										46.4	-91.07
2012	\$ 750,000	New Project	Paint Creek Restoration Project (MI)	City of Rochester, Michigan	The project will restore over 3,500 feet of Paint Creek in Dinosaur Hill Nature Preserve and Municipal Park. Paint Creek is a designated trout stream and is part of the Clinton River Coldwater Conservation Project – a regional effort to restore a trout fishery in the urbanized Clinton River Area of Concern. This work will benefit in-stream fish populations and improve water quality and recreational opportunities for residents.	4	4/10/12	4/9/16	Michigan		
										42.317939	-83.155518

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2012	\$ 135,454	New Project	Fowles Marsh Habitat Restoration (OH)	Cleveland Metroparks	Cleveland Metroparks, in collaboration with Cuyahoga Soil and Water Conservation District, Rocky River Watershed Council, Case Western Reserve University and Baldwin Wallace College, will restore wetland functions and habitat on 60 acres of Fowles Marsh. The Lake Abram wetlands, including Fowles Marsh, is the largest remaining wetland complex in Cuyahoga County. Reestablishment of open water and shallow marsh habitats, control of invasive plants, and restoration of a diverse wetland plant community will significantly improve habitats for waterfowl, wading birds, and migratory songbirds.	4	4/10/12	4/9/16	Ohio		41.36762	-81.829433
2012	\$ 368,646	New Project	Beaver Island Archipelago Invasive Species Initiative (MI)	Conservation Resource Alliance	The Conservation Resource Alliance and partners will control phragmites and other invasive species on 1,400 acres and 7,000 feet of shoreline on six islands in the Beaver Island Archipelago. Control effort will be focused on protected wetlands, uplands and shoreline. This work will help restore and protect rare and threatened ecosystems unique to the northern Great Lakes.	4	4/10/12	4/9/16	Michigan		45.38	-85.33
2012	\$ 150,000	Increase	Boardman Fish Passage and Habitat Restoration (MI)	Conservation Resource Alliance	The Conservation Resource Alliance and partners will remove the mobile portion of accumulated sediment in the impoundment upstream of Brown Bridge Dam on the Boardman River. This work will minimize the downstream transport of 20,000 cubic yards of sediment, following the planned removal of the dam. By removing this sediment in concert with the dam removal, near-term habitat impacts from excessive sediment will be minimized, shortening the time table for natural restoration of the channel and floodplain, literally by decades.	4	4/10/12	4/9/16	Michigan		44.645697	-85.510712
2012	\$ 100,000	New Project	Thornton-Lansing Road Habitat Restoration Project (IL)	Forest Preserve District of Cook County	The Forest Preserve District of Cook County will restore more than 135 acres of lakeplain habitat located within the Millennium Reserve: Calumet Core area in Cook County, Illinois. Restoration techniques will include prescribed burning, herbicide application, and mechanical removal of invasive species.	4	4/10/12	4/9/16	Illinois		41.56794	-87.591248
2012	\$ 125,000	New Project	Girard Twp Fish Passage and Stream Restorations (PA)	Girard Township	Girard Township, in partnership with the Pennsylvania Fish and Boat Commission and other partners, will restore 7 miles of fish passage in Crooked Creek and improve habitat and water quality along 1,500 stream feet in an unnamed tributary to Lake Erie. On Crooked Creek, a rock ramp will be installed to allow fish passage at a road culvert that currently acts as a barrier. Culvert replacement and installation of storm water best management practices on the unnamed tributary will benefit steelhead, white sucker and many other fish species.	4	4/10/12	4/9/16	Pennsylvania		42	-80.19
2012	\$ 416,000	New Project	Northern Saginaw Bay Restoration Initiative	Huron Pines Resource Conservation & Development Area Council, Inc.	The project will reconnect 12 river miles for aquatic passage; improve 2,500 instream feet; remove invasive species to restore 150 acres of wetlands; reduce yearly sediment loading by at least 280 tons; conduct site visits with 100 agriculture and forest landowners; and install buffers along more than 1,250 stream feet. This work will take place on the Rifle and AuGres rivers, along with adjacent small coastal drainages. It builds on NRCS and USEPA efforts and will help sustain the measurable improvement of water quality and wildlife habitat.	4	4/10/12	4/9/16	Michigan		44.04	-83.4
2012	\$ 121,000	New Project	Lake George Wetlands Restoration & Invasive Species Control (IN)	Indiana Department of Natural Resources	The project will restore 92 acres of wetlands in northern Lake County, Indiana in the northeast portion of the Grand Calumet River Area of Concern, by controlling monotypic invasive species. The project will increase the amount and quality of nesting and foraging habitat available to resident and migratory bird populations in the Grand Calumet River Area of Concern.	4	4/10/12	4/9/16	Indiana		41.667654	-87.503357
2012	\$ 150,000	New Project	Pike River Fish Passage Dam Removal & Restoration (WI)	Kenosha County Division of Parks	The Kenosha County Division of Parks will restore fish passage to 22 stream miles and restore 8 acres of historic wetlands by removing an earthen dam topped by a roadway and replacing with a vehicular bridge to allow fish passage. This project will facilitate restoration on the last obstruction on the Pike River from Lake Michigan to its headwaters. This project will benefit chinook salmon, coho salmon, steelhead and white sucker, as well as species of conservation concern including Blandings turtle, skipjack herring and least darter.	4	4/10/12	4/9/16	Wisconsin		42.648788	-87.874135
2012	\$ 874,081	New Project	Coastal Wetlands Restoration Project for Species of Concern (IL & WI)	Lake County Forest Preserve District	The project will restore 1,158 acres of coastal habitat along the Chiwaukee Illinois Beach Lake Plain (Lake Plain). This area represents the highest quality dune and swale coastal ecosystem remaining along the southwestern shoreline of Lake Michigan, but invasive plants continue to threaten habitats in this area. The southern 986 acres of the project area is located in the Extended Study Area of the Waukegan Harbor Area of Concern (AOC) where proposed work will assist in removing the "loss of fish and wildlife habitat" BUI.	4	4/10/12	4/9/16	Illinois and Wisconsin		42.29	-87.48

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2012	\$ 300,000	New Project	Lake Erie Bluffs Restoration Project (OH)	Lake Metroparks	Lake Metroparks will acquire up to 89 acres of Lake Erie coastal property as part of a larger project to protect four parcels encompassing 200 acres and 5,900 feet of contiguous Lake Erie shoreline in Painesville and Perry Townships. Together, the four parcels represent the largest remaining block of undeveloped, privately owned shoreline property along Lake Erie in Lake County. The properties contain wild sand beaches, forested bluffs and coastal wetlands that provide habitat for seven documented state-listed plants and many migratory birds, including the first pair of nesting merlins documented since the 1830s.	4	4/10/12	4/9/16	Ohio		41.784746	-81.187474
2012	\$ 799,226	New Project	Restoring Fish Spawning Habitat in the Detroit River	Michigan Sea Grant	This project will construct a hectare reef in the Detroit River to increase spawning habitat for fish in the Detroit River and will facilitate the removal of the loss of fish and wildlife habitat BUI. The project will include pre- and post-construction assessments focused on the life stages of key target species – lake sturgeon, northern madtom, lake whitefish, and walleye.	4	4/10/12	4/9/16	Michigan		42.19	-83.02
2012	\$ 150,000	New Project	Saginaw Bay Imperiled Lake Plain Prairie Habitat Restoration	Saginaw Bay Land Conservancy	The Saginaw Basin Land Conservancy and partners will control invasive phragmites to restore 101 acres, 11,700 linear feet of stream bank, and 10,100 linear feet of coastal habitat along Saginaw Bay. Control efforts will be conducted at the mouths of the Saginaw River, AuGres River and four Arenac County drains and will contribute to the delisting of Beneficial Use Impairments within the Saginaw River and Bay Area of Concern.	4	4/10/12	4/9/16	Michigan		43.38	-83.49
2012	\$ 525,000	New Project	Mohican Nation Wetland Restoration and Rail Bed Removal (WI)	Stockbridge-Munsee Community	The project will remove four segments of an abandoned rail bed to restore connectivity between 258 acres of wetlands and 2 miles of stream habitat. By removing four rail bed segments totaling 1 mile in length, this project will help restore natural hydrologic conditions and initiate the restoration of the natural community across hundreds of acres of interconnected wetlands and streams.	4	4/10/12	4/9/16	Wisconsin		44.5	-88.5
2012	\$ 600,000	New Project	Coastal Wetland Restoration in the Maumee Area of Concern	The Nature Conservancy - Ohio	This project will restore over 500 acres of wetlands and uplands near Lake Erie within the Maumee Area of Concern. Adjacent to the Crane Creek estuary, less than one mile from Lake Erie's shoreline, fish habitat will be restored through reconnection to the tributary, and other habitat will be enhanced through increased water conveyance, aquatic connectivity and invasive species control. The work will contribute to the removal of three Maumee Area of Concern BUIs.	4	4/10/12	4/9/16	Ohio		41.619292	-83.213882
2012	\$ 150,000	New Project	Coastal Wetland Restoration at the Pt. au Sable Nature Preserve (WI)	University of Wisconsin	114 acres of coastal wetlands will be restored on Pt. au Sable, the largest coastal wetland complex on the east shore of Green Bay. Outcomes of this project will include the removal and management of invasive phragmites, buckthorn, garlic mustard and honeysuckle in wetland and associated upland habitats and the first stages in restoration of a large coastal wetland that provides important stopover and breeding habitat for migratory and resident birds. Located within the Lower Fox River & Green Bay Area of Concern, this project has been identified as a high priority for BUI removal.	4	4/10/12	4/9/16	Wisconsin		45.1	-87.13
2012	\$ 458,160	New Project	Invasive Phragmites Control in Michigan's Upper Peninsula	Upper Peninsula Resource Conservation and Development Council	The project will control invasive phragmites to restore or enhance 400 acres of coastal shoreline and wetlands in the Upper Peninsula of Michigan. The project will establish sustainable, long-term control by reducing known phragmites populations and coordinating efforts across jurisdictions and land ownerships to maximize benefits and efficiency. An early detection/rapid response (EDRR) network will be used to discover, verify and treat newly-reported invasive phragmites.	4	4/10/12	4/9/16	Michigan		46.534555	-87.420959