Great Lakes Restoration Initiative in Wisconsin

Fiscal Year 2012 Report

NRCS Mission:
Helping People Help the Land

The Natural Resources Conservation Service has assisted Wisconsin landowners in conserving natural resources on private lands for over 75 years. Resource stewardship is a vital part of conservation and is the primary mission of NRCS.

The Great Lakes Restoration Initiative is the largest investment in the Great Lakes in two decades. A task force of 11 federal agencies developed a plan to put the President's historic initiative into action. The action plan covers fiscal years 2010 - 2014 and addresses five urgent issues: 1) Cleaning up toxins and areas of concern; 2) Combating invasive species; 3) Promoting nearshore health by protecting watersheds from polluted runoff; 4) Restoring wetlands and other habitats and; 5) Tracking progress and working with strategic partners. Funding for this initiative is provided through the Environmental Protection Agency. The following federal agencies and departments are participating in this initiative:

The Great Lakes are a key part of Wisconsin's identity. Wisconsin enjoys nearly 800 miles of Lake Michigan and Lake Superior coastline. Nearly one-third of the land and one-half of the population of Wisconsin reside within the Great Lakes basin.

The Great Lakes Restoration Initiative (GLRI) was implemented in 2010 and the Natural Resources Conservation Service (NRCS) in Wisconsin is playing a central role in carrying out the plans of the initiative. We are dedicating staff, developing partnerships, and funding conservation practices within specific watersheds near the Great Lakes. We are working closely with the Environmental Protection Agency (EPA) and nine other federal agencies to ensure we achieve or exceed the restoration goals of the Initiative.

This report covers our Fiscal Year 2012 accomplishments.

Sincerely,

Jimmy Bramblett

Jimmy Bramblett
State Conservationist

Conservation Beyond Boundaries

Clean water, abundant wildlife, and productive agriculture are all interconnected. Conservation doesn't have man-made boundaries. That's why NRCS is addressing natural resource priorities on a landscape scale. Our conservation solutions are to benefit both landowners and the environment, provide wildlife habitat and improve agricultural production.

NRCS is working with conservation partners to combat invasive species, protect watersheds and shorelines from non-point source pollution, and restore wetlands and other habitat areas. NRCS is also working with Federal and local partners to measure the effects that conservation practices have on water quality. The overall strategy is to accelerate conservation practice implementation in each focus watershed, so that water quality actually improves downstream.

Through financial and technical assistance, NRCS helps private landowners with conservation planning using a variety of conservation practices, such as cover crops, conservation crop rotations, filter strips, prescribed grazing and wetland restoration.

Wisconsin Watersheds

Wisconsin NRCS has focused GLRI efforts on three Lake Michigan watersheds: Lower Fox River, Manitowoc-Sheboygan, and Milwaukee River. Since 2010, NRCS has invested over $10.8 million in GLRI funding toward conservation practices in these watersheds.

The Great Lakes Restoration Initiative will improve water quality and wildlife habitat, and help protect and restore priority watersheds.

Total GLRI-EQIP Funding in Fiscal Year 2012

Funding for GLRI in the Lower Fox River, Manitowoc-Sheboygan, and Milwaukee River Watersheds is through the Environmental Quality Incentives Program (EQIP)

Total GLRI-EQIP funding = $4,602,564 in 83 contracts covering 26,315 acres

Listing of Conservation Practices Funded through GLRI-EQIP in Fiscal Year 2012*

Access Control = 2 acres
Access Road = 440 feet
Brush Management = 13 acres
Closure of Waste Impoundments = 4
Comprehensive Nutrient Mgmt Plan = 6
Conservation Cover = 1 acres
Cover Crop = 142 acres
Critical Area Planting = 1 acre
Diversion = 300 feet
Fence = 15,199 feet
Forage and Biomass Planting = 15 acres
Grassed Waterway = 8 acres
Heavy Use Area Protection = 4 acres
Integrated Pest Management = 568 acres
Mulching = 3 acres
Nutrient Management = 4,677 acres
Obstruction Removal = 3 acres
Pipeline = 1,000 feet
Prescribed Grazing = 19 acres
Roofs and Covers = 1
Roof Runoff Structure = 7
Sediment Basin = 2
Solid Liquid Waste Separation Facility = 1
Stream Crossing = 2
Subsurface Drain = 12,036 feet
Tree/Shrub Establishment = 9 acres
Underground Outlet = 2,272 feet
Waste Storage Facility = 6
Waste Transfer = 10
Waste Treatment = 3
Watering Facility = 2
Upland Wildlife Habitat Management = 66 acres
Vegetated Treatment Area = 6 acres
Wetland Creation = 0.6 acres
Wetland Restoration = 0.5 acres

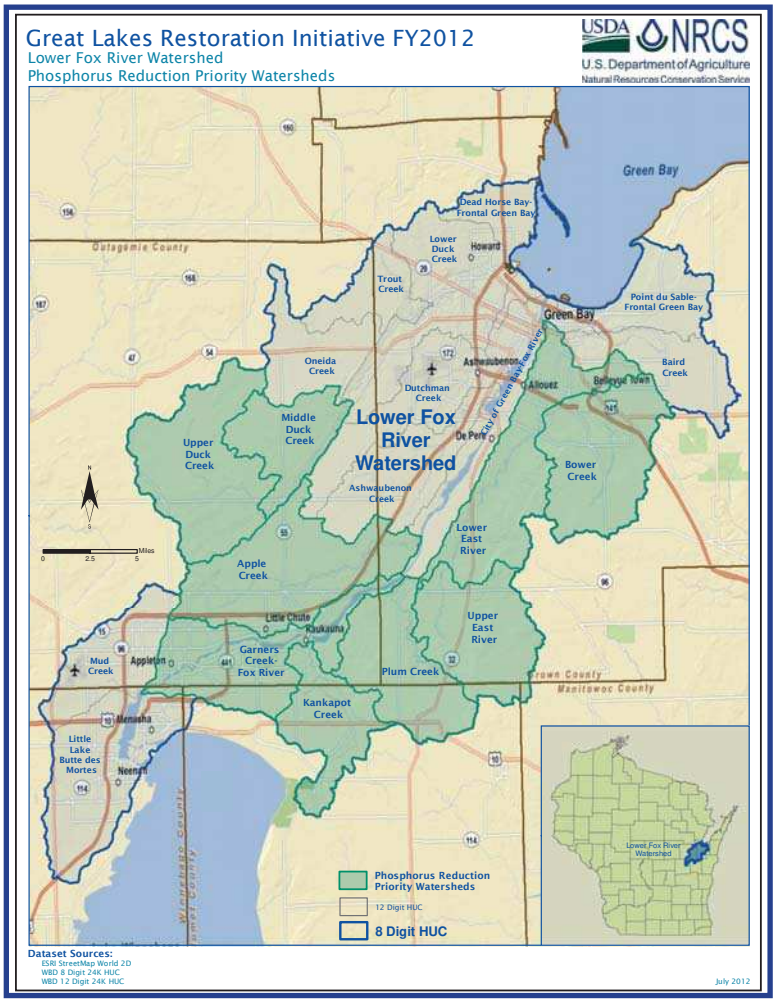
* Note: Conservation practices funded specifically in the Phosphorus Reduction Pilot Project in the Lower Fox River Watershed are listed on page 5 and are not included in this listing.

Staffing

NRCS currently employs conservation staff exclusively for this initiative to ensure water quality results are achieved. GLRI technical assistance funds supported seven positions with NRCS in FY 2012. Staffing consists of Soil Conservationists, Soil Conservation Technicians, Lakewide Management Plan (LaMP) Coordinator for Lake Michigan and a Geographic Information System Specialist. These staff work directly with agricultural producers to plan and implement conservation practices in all GLRI priority watersheds. Staff work closely with other conservation professionals and network with local partners within and outside of government.

Lower Fox River Watershed
Phosphorus Reduction Pilot Project

High volumes of phosphorus and sediment deposition into Green Bay is a major concern in the Lower Fox River watershed. Phosphorus levels here have steadily increased over the years, resulting in water quality concerns and degradation of aquatic habitat. NRCS is conducting a multi-year pilot project to help farmers reduce the amount of phosphorus entering surface water from agricultural land by funding specific conservation practices.



Through this special project, conservation efforts are concentrated in nine priority watersheds. These watersheds were selected by evaluating resource concerns, potential for improvement, and likely participation of agricultural producers in the area. This focus area received additional GLRI funding administered through EQIP resulting in $3.1 million in financial assistance obligated through 48 contracts covering 19,959 acres.

Phosphorus Reduction Priority Watersheds:

Apple Creek
Bower Creek
Garners Creek
Kankapot Creek
Lower East River
Middle Duck Creek
Plum Creek
Upper East River
Upper Duck Creek

The targeted conservation efforts to reduce nutrient runoff include:

- Nutrient Management - helping producers determine the right source, right rate, right time and right place for applying nutrients so crop uptake is optimized, and loss is minimized
- Cover Crops - planting cover crops minimizes nutrient losses, reduces erosion and increases soil health
- No-Till or Strip Till - managing crop residue on farm fields to reduce erosion and improve soil health

These results show the power of a targeted approach to conservation.

Listing of Conservation Practices Funded through GLRI-EQIP in Fiscal Year 2012 - Phosphorus Reduction Pilot Project Area

Access Road = 4,628 feet
Animal Trails and Walkways = 575 feet
Closure of Waste Impoundments = 5
Comprehensive Nutrient Mgmt Plan = 11
Conservation Cover = 2 acres
Cover Crop = 4,450 acres
Critical Area Planting = 19 acres
Diversion = 2,346 feet
Fence = 14,200 feet
Filter Strip = 11 acres
Grade Stabilization Structure = 1
Grassed Waterway = 70 acres
Heavy Use Area Protection = 21 acres
Integrated Pest Management = 15,457 acres
Lined Waterway or Outlet = 100 feet
Mulching = 0.4 acres
Nutrient Management = 4,544 acres
Obstruction Removal = 4 acres
Pipeline = 6,103 feet
Prescribed Grazing = 49 acres
Residue and Tillage Mgmt, No Till = 499 acres
Roof Runoff Structure = 12
Solid Liquid Waste Separation Facility = 1
Stream Crossing = 10
Subsurface Drain = 50,585 feet
Tree/Shrub Establishment = 0.5 acres
Underground Outlet = 18,267 feet
Upland Wildlife Habitat Mgmt = 214 acres
Vegetated Treatment Area = 8 acres
Waste Storage Facility = 12
Waste Transfer = 20
Waste Treatment = 1
Water and Sediment Control Basin = 33
Wetland Restoration = 7 acres
Windbreak/Shelterbelt Establishment = 225 feet

Conservation Highlight: Edge of Field Monitoring - Brown County

USGS has installed two edge-of-field monitoring stations and one in-stream monitoring station in Brown County to track changes in the amount of nutrients and sediments leaving farm fields after conservation practices are applied. The collection of water quality and quantity data will document the reduction of nutrient runoff due to the installation of NRCS conservation practices funded through GLRI.

Edge of field monotoring equipment being installed on agricultural land in a Phosphorus Reduction Priority Watershed.

Lower Fox River Watershed

Conservation Highlight: Oneida Nation Farms

The Oneida Tribe of Indians of Wisconsin have been grazing buffalo on their Oneida Nation Farms (ONF) since 1996. Their farm is located near Seymour, Wisconsin and extends through parts of Brown and Outagamie Counties. The farm is part of the Lower Fox River Watershed which flows into Green Bay.

Expanding the Herd

With only 150 acres of pasture and the herd size reaching 140, changes were needed in both the infrastructure and the grazing management system. NRCS worked with the ONF staff to develop a conservation plan and a new prescribed rotational grazing plan for the farm.

Utilizing GLRI-EQIP funds, ONF has expanded the pasture to 214 acres and placed the entire operation under a prescribed rotational grazing system. Additional funds to complete the infrastructure were secured from GLRI-EQIP and partners to install fencing, pipeline, watering facilities and a well.

Benefits of Conservation

ONF knows well the benefits of a managed grazing system. These conservation practices improve forage quality, plant productivity and herd health. Rotational grazing also reduces the risk of harmful pathogens moving into the ground and surface water.

Dennis VanVreede, ONF farm supervisor says, “Thanks to NRCS and GLRI funding, we have been able to expand our buffalo grazing operation allowing us to supply more healthy meat to the Oneida people and at the same time improve forage quality.”

The Oneida Nations Farm utilizes a rotational grazing system for their buffalo herd.

Manitowoc-Sheboygan Watershed

Conservation Highlight: Wetland Restoration - Manitowoc County

Saxon Homestead Farm LLC approached NRCS for assistance in identifying land treatment options for a degraded wetland area on their farm. The area was being used for pasture, however the vegetation was not of sufficient quality for their rotational grazing system. It was determined the best option would be to perform a wetland restoration project. This wetland restoration is only 2.6 miles from Lake Michigan and provides excellent waterfowl habitat.

Before photo: You can see the willows, reed canary grass, and degraded pasture area that had poorly drained soils. The restoration will capture sediment and nutrient runoff thereby improving surface and groundwater quality.

After photo: Wetland restoration built to NRCS standards with some waterfowl already using the area.

NRCS conservation practices reduce sediment, nutrients, and pesticides running into the Great Lakes.

Milwaukee River Watershed

Conservation Highlight: Essential Dairy - Washington County

Dave and Heather Lettow have been farming since 2007. Being good stewards of their land, they are always looking for ways to address the natural resource concerns on their farm and make improvements. Through EQIP, NRCS helped them develop a prescribed grazing system for their dairy operation. This system allows them to pasture the cows rather than concentrating them at the barnyard, helping to manage the nutrients and balance their forage supply.

Keeping the water clean on the farmstead was one of their priorities. Conservation practices include a roof runoff system with gutters on the barn roofs to divert the clean water from the barnyard runoff. To protect the soil from erosion over winter they plant cover crops which will also be a source of high quality forage for the cattle in the spring.

The Conservation Stewardship Program (CSP) is designed to help maintain present conservation activities and make new conservation improvements, such as improved erosion control, better water quality practices, or wildlife habitat management, or energy efficiency improvements. The Lettows were awarded a CSP contract to maintain their level of conservation for five years. To enhance their activities they now recycle 100 percent of their on-farm lubricants and added structures to their watering trough to allow wildlife to escape.

In 2013 through GLRI-EQIP funding, they are installing a manure storage structure with a roof. This system will allow them to keep their manure in a semi-solid state which will allow them to manage it more functionally. It will allow them to manage the nutrients in a way that their crops will be get the most out of the manure. They are also installing a milkhouse waste collection system to keep contaminated water out of nearby surface water. They will also be planting an additional 34 acres of cover crop.

"We have made a lot of improvements to this farm since we took it over five years ago," Dave said, "We never would have been able to do it without the assistance of NRCS."

Milwaukee River Watershed

Conservation Highlight: Manure Management - Washington County

NRCS is working to reduce nutrient runoff entering Lake Michigan. A manure transfer system was completed for a dairy operation near the city of West Bend, as a final component in a manure management plan done in partnership with Washington County Land and Water Conservation Division. In 2012, $15,500 in GLRI-EQIP funding was provided for the project which also included cover crops and buffer strips. The now completed project will greatly improve manure management on the 250 acre family farm.

Before photo: Bare ground near barnyard allows runoff. Lack of manure storage limits farmer's options, resulting in spreading on snow, frozen ground, or when severe weather poses high risk for runoff.

After photo: A waste storage facility allows the farmer to spread manure safely during optimum weather, thereby reducing risk of runoff, and at the best time and place for the crop to utilize the nutrients in the manure.

NRCS Contribution Agreements funded through GLRI

Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP)

Agreement Purpose: Technical support to conservation professionals and farm operators to increase nutrient management
Location: Lower Fox River, Manitowoc-Sheboygan and Milwaukee River Watershed
Agreement Duration: 2011-2013

Sand County Foundation

Agreement Purpose: Recruitment of landowners to apply nutrient management practices and implement water quality monitoring to measure impacts
Location: Milwaukee River Watershed
Agreement Duration: 2011-2014

Outagamie County Land Conservation Department

Agreement Purpose: Develop conservation plans
Location: Lower Fox River Watershed
Agreement Duration: 2011-2013

Ozaukee County Land and Water Management Department

Agreement Purpose: Develop conservation plans with a focus on cropland buffers
Location: Milwaukee River and Manitowoc-Sheboygan Watershed
Agreement Duration: 2010-2013

Wisconsin NRCS GLRI Partners

Environmental Protection Agency

Sand County Foundation

United States Geological Survey

Wisconsin Department of Agriculture, Trade and Consumer Protection

Wisconsin Department of Natural Resources

Wisconsin County Land Conservation Departments
(Brown, Calumet, Dodge, Fond du Lac, Kewaunee, Manitowoc, Milwaukee Outagamie, Ozaukee, Sheboygan, Washington, Waukesha, Winnebago)

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