



United States Department of Agriculture
Natural Resources Conservation Service

MINNESOTA

Accomplishments Report

2012



USDA
Natural Resources Conservation Service



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Helping People Help the Land



State Conservationist's Message



Hello Fellow Conservationist's:

I proudly present to you the 2012 Accomplishments Report for the Minnesota Natural Resources Conservation Service (NRCS). This year was a great year for conservation in Minnesota. Thank you for making these conservation accomplishments possible.

This past year has been a challenging year for us but we have done some great work in Minnesota with private landowners. I am really proud of the efforts the NRCS employees have made in the field to get quality conservation practices applied.

The conservation partnership in Minnesota that NRCS has with the soil and water conservation districts continues to make a difference state-wide. This partnership produces a seamless delivery system for our local, state and federal conservation programs.

The Minnesota Agricultural Water Quality Certification Program (MAWQCP) continues forward to provide certainty for Minnesota farmers. It has great promise for the state of Minnesota and its agricultural producers. If we can follow this path for water quality it will be huge and provide us with great opportunities to work with our farmers implementing the best available science; our Field Office technical Guide of conservation practices! Stay tuned; more will be happening on this in FY 2013.

This year we made headway with continued on-going concerns centering around the Wetland Conservation Act and Swampbuster provision (1985 Food Security Act-Farm Bill). The development of SWAT teams that focus in on the handling of 1026's/569's has reduced the significant backlog that MN has experienced for several years.

The topic of Soil Health is a big deal! It has the promise of being a huge game changer for farmers, water quality, energy, and everything else. Stay tuned; more to follow in FY 2013.

Yours in conservation,

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Don A. Baloun, Minnesota State Conservationist

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Agricultural Water Enhancement Program

The Agricultural Water Enhancement Program (AWEP) is a voluntary conservation initiative that provides financial and technical assistance to agricultural producers to implement agricultural water enhancement activities on agricultural land to conserve surface and ground water and improve water quality. As part of the Environmental Quality Incentives Program (EQIP), AWEP operates through program contracts with producers to plan and implement conservation practices in project areas established through partnership agreements.

Each fiscal year, NRCS may make AWEP financial and technical assistance available to eligible owners and operators of agricultural lands who participate in approved AWEP project areas.

After the Chief has announced approved AWEP project areas, eligible agricultural producers may submit a program application.

NRCS enters into partnership agreements with eligible entities and organizations that want to promote ground and surface water conservation or improve water quality on agricultural lands.

AWEP is not a grant program. Eligible partners enter into multi-year agreements with NRCS to promote ground and surface water conservation, or improve water quality on eligible agricultural lands. AWEP is intended to leverage investment in natural resources conservation along with services and non-Federal resources of other eligible partners. Individual producers are not eligible to submit a partnership proposal.

2012 Accomplishments

Minnesota approved 47 contracts covering 12,048 acres for a total financial assistance of \$1,120,164.

Practices included:

- 6,420 feet of Ring Dikes
- 87 Water & Sediment Control Basins
- 66,310 feet of Fence
- 11,880 acres of Residue Management
- 31 Grade Stabilization Structures





Conservation Security Program

The Conservation Security Program is a voluntary conservation program that supports ongoing stewardship of private agricultural lands by providing payments for maintaining and enhancing natural resources. CSP identifies and rewards those producers who are meeting the highest standards of conservation and environmental management on their operations, and helps these producers maintain their conservation stewardship level and implement additional conservation practices that provide added environmental enhancement. The conservation benefits gained will help agricultural operations be more environmentally sustainable and will increase the natural resources benefits provided to all Americans.

The Conservation Security Program was authorized in the 2002 Farm Bill and yearly sign-ups were held in selected watersheds across the nation and structured on a three tier system. To be eligible, an agricultural operation was required to be located in one of the selected watersheds for the specific year's sign-up. A producer's operation also needed to meet the minimum tier eligibility and contract requirements;

- Tier 1** - required to meet soil and water quality resource concern thresholds on part of operation;
- Tier 2** - required to meet soil and water quality resource concern thresholds on entire operation;
- Tier 3** - required to meet all resource concerns on entire operation.

There are no longer sign-ups for the Conservation Security Program, as it was replaced by the Conservation Stewardship Program in the 2008 Farm Bill, but MN NRCS still has 307 active contracts that it is managing and providing technical and financial assistance to producers. In Fiscal year 2012, MN NRCS provided \$4.4 million in financial assistance as well as immeasurable technical assistance to Conservation Security Program participants. NRCS financial and technical assistance through CSP promotes the conservation and improvement of soils, water, air, energy, plants, and animal life and other conservation purposes by environmental enhancement activities that include improving soil quality, water quality, wildlife habitat management, air quality management, and on-farm energy management.

Conservation Stewardship Program

The Conservation Stewardship Program was authorized in the 2008 Farm Bill and replaced the Conservation Security program (2002 Farm Bill). It is a voluntary program that encourages agricultural and forestry producers to address resource concerns by undertaking additional conservation activities, and improving and maintaining existing conservation systems. By maintaining their current conservation systems and adopting additional conservation activities, producers are maintaining and enhancing the treatment of soil quality, soil erosion, water quality, water quantity, air quality, plants, animals, and energy natural resources. Eligible lands include cropland, grassland, prairie land, improved pasture land, rangeland, nonindustrial private forestland, and agricultural land under the jurisdiction of an Indian tribe. (Continued page 5)



Conservation Stewardship Program

The Conservation Stewardship Program is available to all producers nationwide, regardless of operation size or crops produced. Applications are accepted on a continuous basis with announced ranking cut-off dates when the ranking and funding of applications on file will occur. Applications need to include the applicant's entire operation and are evaluated and ranked relative to other applications that address similar resource concerns in Minnesota. In the ranking process, applicants receive credit for both, conservation measures they have already implemented and for new measures they agree to add. The applications addressing the most resource concerns to the highest degree will receive the highest rankings and will have an on-site field verification conducted prior to entering into a 5 year contract.

MN NRCS currently is providing technical and financial assistance through over 3,214 active Conservation Stewardship Program contracts with an estimated \$56.5 million in financial assistance being provided annually. MN NRCS provided \$37.6 million in financial assistance in Fiscal Year 2012 through the 2,321 contracts awarded to 893 new contracts during the Fiscal Year 2012 sign-up, with an estimated \$18.9 million in financial assistance being provided in Fiscal Year 2012 for these Fiscal Year 2012 contracts. The technical and financial assistance being provided will help producers maintain their existing conservation system, and add new activities to enhance the treatment of soil, water, air, plants, animals, and energy resource concerns on their operation.

Driftless Area Landscape Conservation Initiative

The Natural Resources Conservation Service (NRCS) in the states of Illinois, Iowa, Minnesota and Wisconsin propose a special initiative, the Driftless Area Landscape Conservation Initiative (DALCI) in the Driftless Area of the four states. The primary purpose of the initiative is to restore, improve and protect fish and wildlife habitat for the unique and diverse species found in the region's working lands, forests, streams and prairies. Four resource objectives will be adopted: A) manage working lands for increased perennial cover; B) manage woodlands for increased diversity; C) restore working lands to prairie and manage existing grasslands and oak savanna habitats for improved bird and pollinator habitat; D) restore cold water trout streams and adjacent riparian areas of the region.

2012 Accomplishments

Minnesota funded 13 contracts for \$564,533 of financial assistance.



Environmental Quality Incentives Program

The Environmental Quality Incentives Program (EQIP) is a voluntary program that provides financial and technical assistance to agricultural producers through contracts up to a maximum term of ten years in length. These contracts provide financial assistance to help plan and implement conservation practices that address natural resource concerns and for opportunities to improve soil, water, plant, animal, air and related resources on agricultural land and non-industrial private forestland. In addition, a purpose of EQIP is to help producers meet Federal, State, Tribal and local environmental regulations.

EQIP provides financial assistance payments to eligible producers based on a portion of the average cost associated with practice implementation. Additional payments may be available to help producers develop conservation plans which are required to obtain financial assistance.

Historically underserved producers (limited resource farmers/ranchers, beginning farmers/ranchers, socially disadvantaged producers, Tribes) may be eligible for a higher practice payment rate for the implementation for conservation practices and conservation plans.

Producers may use a certified Technical Service Provider (TSP) for technical assistance needed for certain eligible activities, services and the development of conservation plans. Historically underserved producers may also be eligible for advance payments up to 30 percent of the cost needed to purchase materials or contracting services to begin installation of approved conservation practices.

Minnesota's EQIP program incorporates environmental priorities as identified at the state level (State Technical Committee) and local levels (Local Work Group) into the selection of what specific program options will be offered, and what factors, questions and screening tools will be used in the application ranking process. Ranking worksheets for each program option include evaluation questions that reflect national, state and local priorities.

2012 Accomplishments

Minnesota received 2,557 EQIP applications in 2012.

Minnesota approved 1,566 contracts covering 214,733 acres for a total financial assistance of \$22,252,489. Included in these numbers are 399 approved contracts covering 44,959 acres assisting Beginning Farmers, Socially Disadvantaged and Limited Resource producers with financial assistance totaling \$5,312,542.

EQIP funding options:

- Beginning Farmers
- CCPI
 - Driftless Initiative
 - MRBI
- Driftless Area Landscape Conservation Initiative (DALCI)
- Great Lakes Restoration Initiative (GLRI)
- Organic Initiative
- Seasonal High Tunnel Initiative
- Socially Disadvantaged
- National Water Quality Initiative

Practices Included

- 15 Comprehensive Nutrient Management Plans
- 57 Waste Storage Facilities
- 133 Grade Stabilization Structures
- 141 Grassed waterways



EQIP Forestry Initiative Pilot Project

The Minnesota EQIP Forestry Subcommittee took on the task of developing a pilot project for allocating up to \$1,000,000 of dedicated EQIP funding for forestry practices throughout the state. This was the first time EQIP funds had been reserved specifically for implementing forestry practices, at a level that far exceeded historical norms. All the \$1,000,000 was allocated after the 3 ranking periods.

The leadership of the subcommittee leadership consisted of the Minnesota Department of Natural Resources-Division of Forestry, Minnesota Association of Soil and Water Conservation Districts, Minnesota Forest Resources Council, US Forest Service and NRCS.

The goal of the 2012 EQIP Forestry Initiative was to meet the greatest need for improving the forest resources of Minnesota. Highest priority was given to establishing trees or shrubs, improving forest composition and growth, and controlling invasive plants. Another goal was to distribute the funding throughout Minnesota. All 6 NRCS Areas participated while thirty-nine (39) counties had approved applications.

EQIP Forestry Initiative Summary Table

Practice Code	Practice	Units	Amount	Applications
106	Forest Management Plan	No.	21	21
314	Brush Management	Ac.	182.4	27
315	Herbaceous Weed Control	Ac.	4.9	1
338	Prescribed Burning	Ac.	69.5	4
380	Windbreak Establishment	Ft.	107,913.0	36
391	Riparian Forest Buffer	Ac.	5.6	2
422	Hedgerow Planting	Ft..	56,208	21
490	Forest Site Preparation	Ac.	3,365.5	99
612	Tree/Shrub Establishment	Ac.	1,941.5	144
643	Restoration and Management of Declining Habitats (red, white and jack pine forests and oak savannahs)	Ac.	10.0	3
666	Forest Stand Improvement	Ac.	907.3	72



Wetlands

Mississippi River Basin Healthy Watershed Initiative

Mississippi River Basin Initiative (MRBI) is a voluntary conservation program that works with agricultural producers to build on past efforts of addressing nutrient loading in the Mississippi River basin. Sediment and nutrient loading contribute to the water quality problems throughout the river basin. The conservation systems approach is used to manage and optimize nitrogen and phosphorus within fields and to minimize runoff and reduce downstream nutrient loading. Through the Environmental Quality Incentive Program and the Wetlands Reserve Program, a variety of conservation practices promote water quality, wetland restoration and wildlife habitat while maintaining agricultural production.

2012 Accomplishments

Minnesota received 83 MRBI applications in 2012.

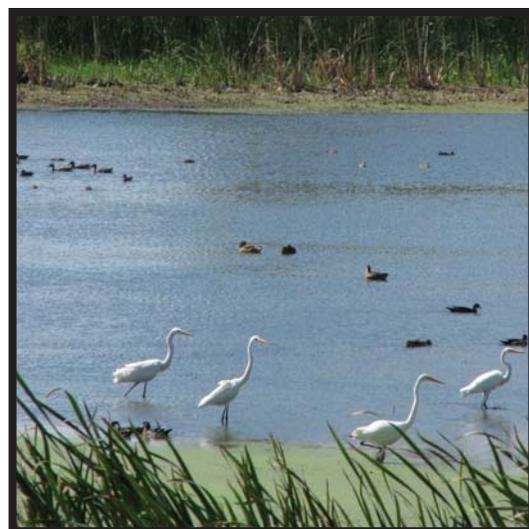
Minnesota approved 72 contracts covering 20,657 acres for a total financial assistance of \$844,049.

2012 MRBI Focus Areas and Projects:

- Sauk Watershed
 - Accelerated Protection & Restoration of Targeted Watersheds in the Sauk River Watershed
 - Accelerated Protection & Restoration of Grand Pearl Minor in the Sauk River Watershed
- Middle Minnesota
 - Little Cottonwood River
 - Redwood County – Middle Minnesota River
- Upper Cedar Watershed
 - Green Valley/Austin Watershed Initiative
- Root Watershed
 - Watson Creek Watershed Initiative
 - Upper South Fork Root River Watershed Initiative
 - Rush-Pine Creek Watershed Initiative

Practices included:

- 3 Waste Storage Facilities
- 3 Sediment basins
- 32,754 Feet of Fence
- 15,850 acres of Nutrient Management
- 34 Comprehensive Nutrient Management Plans
- 21 Water & Sediment Control Basins
- 26,880 Feet of Pipeline



Waterfowl and wetland



Narrowbase Terrace

National Water Quality Initiative

The National Water Quality Initiative will work in priority watersheds to help farmers, ranchers and forest landowners improve water quality and aquatic habitats in impaired streams. NRCS will help producers implement conservation and management practices through a systems approach to control and trap nutrient and manure runoff. Qualified producers will receive assistance for installing conservation practices such as cover crops, filter strips and terraces.

NRCS identified priority watersheds through the help of local partnerships and state water quality agencies. Partners sometimes offer financial assistance in addition to NRCS programs. NRCS will continue to coordinate with local and state agencies, conservation districts, nongovernmental organizations and others to implement this initiative. This strategic approach will leverage funds and provide streamlined assistance to help individual agricultural producers take needed actions to reduce the flow of sediment, nutrients and other runoff into impaired waterways.

2012 Accomplishments

Minnesota received 21 NWQI applications in 2012 of those 13 were approved as contracts covering 7,575 acres for a total financial assistance of \$564,533.

2012 NWQI Focus Watersheds:

- Blue Earth Watershed
 - Elm Creek
- Middle Minnesota
 - Sevenmile Creek
- Chippewa
 - Chippewa River



Shoreline Protection

Practices included:

- 20,687 acres of Nutrient Management
- 640 feet of Streambank and Shoreline Protection
- 2 Grade Stabilization Structures



Emergency Watershed program

The Emergency Watershed Program (EWP) is used to correct watershed impairments caused by a sudden natural event that threatens life or property. The Minnesota NRCS is part of the Minnesota Recovers Task Force which is made up of government agencies and other organizations who have a role in disaster recovery. Our EWP projects are coordinated through the Task Force.

In 2012 Minnesota completed two projects which had been on the funding "wait list" since the September 2011 flood. The Kellogg stream bank protection project protected two homes that had been threatened. In Blue Earth County, a Township road that provided the sole access route for several homes was threatened by erosion. In both cases the sponsors used the EWP program for 75% of the funding and State flood recovery funds administered through BWSR for the balance.

The floods which impacted the Duluth area and also parts of southeastern Minnesota this summer have resulted in activation of the EWP program. Damage Survey Reports have been completed and eligible projects have been submitted to NHQ for funding.

The PL-566 Watershed Protection and Flood Prevention Program

Funding for the PL-566 program was terminated in FY2011. Just prior to that termination, Minnesota received funds to construct the Spring Brook project in Kittson County. The Spring Brook project consists of approximately 6 miles of "setback levees" that will improve the health of the stream channel, provide considerable wildlife habitat along the stream and reduce flood damages to adjacent cropland.

Engineering designs have been completed and the Two Rivers Watershed District, who is the local sponsor, is in the process of issuing bidding documents. All construction is expected to be completed in the summer of 2013.



Kellogg, MN EWP project, looking downstream



Blue Earth County EWP project- streambank protection (protecting a road with access to several homes and a gasoline) on LeSueur River (completed by NRCS). looking downstream of the Zumbro River. Stream barb and rip rap protection shown



Looking north from the opposite bank at the project



Farm and Ranch Lands Protection Program

The Farm and Ranch Land Protection Program (FRPP) is administered by the NRCS and partners with eligible entities to secure easements on eligible agricultural land to maintain production capability. NRCS provide up to 50% of the easement compensation and partner entities along the landowner donation provide the remaining amount.

\$1.12 million of USDA-NRCS FRPP funding was obligated in 2012. A competitive Request for Proposal process was utilized nationwide. Dakota County was selected to receive funding since they were the only and highest ranked applicant in Minnesota. Dakota County, the Dakota County Soil and Waters Conservation District and NRCS continue to partner on this effort working with 11 private landowners to protect 932 acres of farmland.

The FRPP funds will continue to support Dakota County's existing farmland protection efforts through the Dakota County Farmland and Natural Area Program (FNAP). Through this joint effort, FRPP funds will contribute up to one half of the cost of farmland protection easements and the county will pay for the other half as well as other associated costs to secure the easement and administer the program.

Six landowners had a Dakota County/ NRCS FRPP easement funded in 2012. This included a total of 700 acres. The easement protects these lands from being converted to non-agricultural land uses.

Minnesota Grazing Lands Conservation Initiative

The Minnesota Grazing Lands Conservation Association (MGLCA) entered into a contribution agreement with NRCS for a total of \$13,000 during FY 2012. Those funds provided financial support for 10 local grazing workshops, two videoconferences, a statewide grazing publication, a regional grazing publication, and a Tri-State Conservation Grazing workshop that brought livestock producers, government agencies, and non-governmental agencies together to discuss the use of grazing as a tool to enhance wildlife habitat. MGLCA members organized workshops with Terry Gompert and Ian Mitchell-Inness, two widely recognized grazing technical experts.

The Grazing Videoconference and the Soil Quality Videoconference created a high level of public participation with nearly 450 participants statewide. The ten local workshops had a total participation of approximately 200 and the circulation of the regional and statewide "Grazing Gazette" was 850. The Tri-State Conservation Grazing Conference drew nearly 300 attendees.

MGLCA leveraged partnerships with the Land Stewardship Project, the Midwest Forage Association, University of Minnesota Extension, the Nature Conservancy, a seed company, a fencing company, and an implement dealer to achieve their objectives. Members of MGLCA contributed an estimated 1,550 hours of volunteer time.



Grassland Reserve Program

The Grassland Reserve Program (GRP) provides technical and financial assistance to landowners to manage and protect their grasslands. USDA NRCS and FSA jointly manage this program. Rental contracts or easement are options that landowners may voluntarily apply for utilizing GRP funding.

An expanded Grassland Reserve Program (GRP) effort was conducted in Minnesota in FY12 that included easements as an option. This involved extensive efforts with numerous partners, recommended by the Minnesota State Technical Committee and approved by both NRCS and FSA.

In the end three easement focus areas were designated, the Root River Watershed in SE MN, SW MN and the Prairie Chicken- Beach Ridges in WC/NW MN. Only one GRP easement was funded in 2012. Rental contracts (10 and 15 years in length) were also obligated by Farm Service Agency

In both rental contracts and easements landowners are assisted by NRCS and develop a grassland management plan. Following the plan to manage the grassland resource according to NRCS technical standards is a requirements of the GRP.

North Central Wetlands Conservation Initiative

The North Central Wetlands Conservation Initiative (NCWCI) is an initiative launched in 2012 by Chief Dave White in response to the burgeoning need for wetland determinations in the four state region of Minnesota, North Dakota, South Dakota, and Iowa. This region has experienced an unprecedented number of requests for drainage evaluations and the related need for certified wetland determinations in the past two years.

MN received a total of \$1.25 million in NCWCI funding. MN NRCS dedicated \$400,000 additional funds, bringing the total funding to \$1.65 million. These funds were used to complete approximately 7,000 certified wetland determinations and provide stimulus to the creation of an agricultural mitigation bank. A substantial backlog of requests continues to exist in the region. On the larger scale the NCWCI looks to establish greater consistency in the processes used across the four states.

Objectives of the North Central Wetlands Conservation Initiative

Efficiencies and quality assurances gained through the NCWCI

- Consistent, quality training has been provided to all involved staff.
- Dedicated staff has been added and is being used to make the certified determinations
- Oversight is being provided by a Regional Conservationist with support of an Oversight and Evaluation Team
- Each state has implemented a real-time quality assurance process.
- A consistent tracking mechanism has been put in place to track progress.

In FY2012 MN used the NCWCI funds as follows:

- \$670,000 was leveraged to obligate a total of \$894,000 in 33 contribution agreements with SWCDs. These agreements are reimbursing SWCDs to provide assistance with developing and issuing new certified wetland determinations.
- \$455,000 was leveraged to obligate a total of \$607,000 in a contribution agreement with the MN Board of Soil and Water Resources. This agreement was largely used to develop procedures, provide training, and promote an agriculture only wetland mitigation bank. Five mitigation bank sites for 338 acres have been approved with credits to be released shortly.
- 5 term biologists were hired and placed in Marshall, Morris, Fergus Falls, and Thief River Falls.

Plant Materials Program

Over the past 50 years, the Bismarck Plant Materials Center in Bismarck, North Dakota has provided plant solutions for the diverse landscapes in North Dakota, South Dakota and Minnesota. The Center offers technical assistance for native landscaping, windbreaks, re-vegetating saline-alkaline soils, improving productivity of range and pasture lands, enhancing wildlife habitat and wetlands, and enhancing native prairie ecosystems. The Center has released over 40 improved conservation plants.

Conservation Priorities

Current work at the PMC focuses on ten major conservation priorities: Streambank & Lakeshore Stabilization; Warm-Season Grass Promotion and Development; Alternative & Specialized Use of Conservation Plants; Tree & Shrub Related Technology; Native Prairie Ecosystem Restoration; Saline & Alkaline Tolerant Plant Materials; Wetland and Riparian Plant Materials; Filter Strips & Nutrient Management; Information, Education & Outreach; and Urban Conservation.

The plant materials program has provided many benefits to Minnesota residents through the years and continues to enjoy strong support from our field office employees, partners and cooperating landowners.

- Minnesota supports an Off Center Evaluation Planting (OCEP) site in Becker. Additional plantings were done in the spring of 2012 with assistance from NRCS state and field office staff. New and existing plantings were evaluated in August. Measurements and notes were taken on crown spread and plant height, disease and insect damage, drought and cold tolerance, fruit production, survival, vigor and animal damage. In the fall of 2012, 37 field plantings across the state were evaluated by field office staff.
- Tribal Outreach: Plants and seed were provided to the Fond du Lac Reservation (MN), the Upper and Lower Sioux Reservations (MN), the Mille Lacs Band (MN) of Ojibwe, and the Sisseton-Wahpeton Sioux Tribe.
- The following plant materials are available for field plantings in 2013:
 - Mongolian Pine
 - Meters Spruce
 - White Sage
 - Sweet Grass

On-going Projects

A Diverse Big Bluestem Release Planned for 2012

A new big bluestem release by the Bismarck PMC is planned for later this year. Seed supply is being increased at the PMC and release procedures are in progress. The proposed name is Bounty Germplasm. It will be a pre-varietal release that has potential to be certified as Select Class seed. It is broadly adapted to Minnesota, the eastern Dakota's, and surrounding regions in the Northern Great Plains and Upper Midwest. Bounty originates from a multi-state plant collection from 326 sites. The parent material was a composite developed from 82 plants selected from a 4000-plant assembly of Minnesota and eastern South Dakota origin big bluestem plants. Bounty Germplasm big bluestem is a leafy, fine stemmed, early maturing germplasm that ranks high in protein and feed value when compared to other popular varieties that are adapted to this area. It will provide a more genetically diverse, native release that is broadly adapted to this region. It has been developed for conservation use in native plantings with the primary objective of ecological revegetation, wildlife habitat, and forage production.



Plant Materials Program

Grass Evaluation

The release of adapted plant materials for conservation plantings is a primary responsibility of the Plant Materials Program. Steps leading to an herbaceous release include collection, accessioning (identification number), propagation of collections, establishment of a replicated evaluation plot, evaluations, establishment of a breeder seed increase field, and establishment of a foundation seed field. Following is a list of species that are currently at the Bismarck PMC in various stages of the release process. Seed was collected for all species except Indiangrass which was collected as vegetative material. Field plots consist of three-plant plots of each accession replicated three times with the exception of prairie dropseed. A standard of comparison, if available, was included in field evaluation plots.

Collections

Species	Year	No.	Selection Criteria	Use
Prairie sandreed <i>Calamovilfa longifolia</i>	2003	38	disease resistance, rhizome spread, leafiness, seed production, flowering date, forage quality	sandy soils
Sand bluestem <i>Andropogon hallii</i>	2003-2004	21	leafiness, seed production, flowering date	sandy soils, rangeland, landscape
Indiangrass <i>Sorghastrum nutans</i>	2005	41	leafiness, texture, flowering date, color, plant form, forage quality, seed production	forage, landscaping
Prairie dropseed <i>Sporobolus heterolepis</i>	1998-2005	3	seed production, plant form, forage quality, seed germination and seedling vigor	prairie restoration, wildlife, landscaping
Prairie junegrass <i>Koeleria macrantha</i>	2006-2007	97	seed production, forage quantity and quality, flowering date	early forage, prairie restoration
Virginia wildrye <i>Elymus virginicus</i>	2008-2009	81	leafiness, flowering date, uniformity, seed production, disease resistance, longevity, plant form and size, forage production	wildlife, prairie seeding, forage,

Red River Basin Initiative

In 2012 NRCS continued its commitment to address flooding and increase flood retention initiatives throughout the entire Red River of the North Basin. The Red River Basin Coordinator and Cartographic Technician were co-located with the Red River Retention Authority staff in West Fargo, ND May 1, 2012. This move enables better coordination of retention efforts and strengthens conservation and retention partnerships in the entire Basin. The Basin covers parts of Minnesota, North Dakota and South Dakota.

Some of the highlights of Red River Basin Initiative (RRBI) and MN NRCS activities in 2012 were:

1. NRCS State Office and Area Office specialists and Red River Basin Coordinator served as technical and program advisors to the Initiatives Retention Committee. This Committee provided program and policy information to help formulate recommendations on flood retention opportunities in the 2012 Farm Bill.
2. NRCS in May facilitated the completion and signing of the Memorandum of Understanding between the RRRRA, NRCS and US Army Corps of Engineers to improve the coordination and completion of permit applications on retention projects.
3. NRCS moved into the RRRRA office on May 1, 2012 in order to facilitate better coordination of the planning and installation of retention projects.
4. NRCS conducted a Red River Basin Initiative WRP sign-up and funded 20 contracts in 9 counties.
5. NRCS engineering staff participated in the completion of two RRRRA's Basin Technical and Scientific Advisory Committee studies which analyzed the impacts of tile drainage on flooding and its effects on peak flows on the Red River.
6. NRCS staff also participated in an agricultural drainage water management workshop in the Bios de Sioux Watershed in August. This workshop explored ways to improve existing agricultural drainage water management in the Red River of the North Basin.

Through an ongoing cooperative effort the NRCS and the Red River Retention Authority utilized Red River Basin Initiative assistance to utilize Wetland Reserve Program (WRP) easements to provide retention benefits as well as the restoration of wetlands and increase wildlife habitat production. The Chief of NRCS allocated WRP financial assistance funds to this effort in FY 2012.

NRCS in coordination with the RRRRA Prioritization Committee screened all WRP applications in the Red River Basin covered by this initiative. See Red River Retention Initiative map. (page 18)

FY12 applications were brought forward by partners as well as through the NRCS normal WRP application process. The partner applications maximized flood mitigation benefits while providing wildlife benefits. Partners are currently working to review all of the funded applications to determine if design changes can be made to increase flood mitigation benefits.

Red River Basin Initiative

The following WRP obligations were made in the Basin in 2012.

FY12 WRP Obligation Summary			
	# Funded	Acres	Dollars
MN	21	4,726	\$3,137,212
ND	9	1,029	\$1,207,907
SD	0	0	\$0
Total	29	5,755	\$4,345,119

Brandt-Angus WRP (before) Restoration



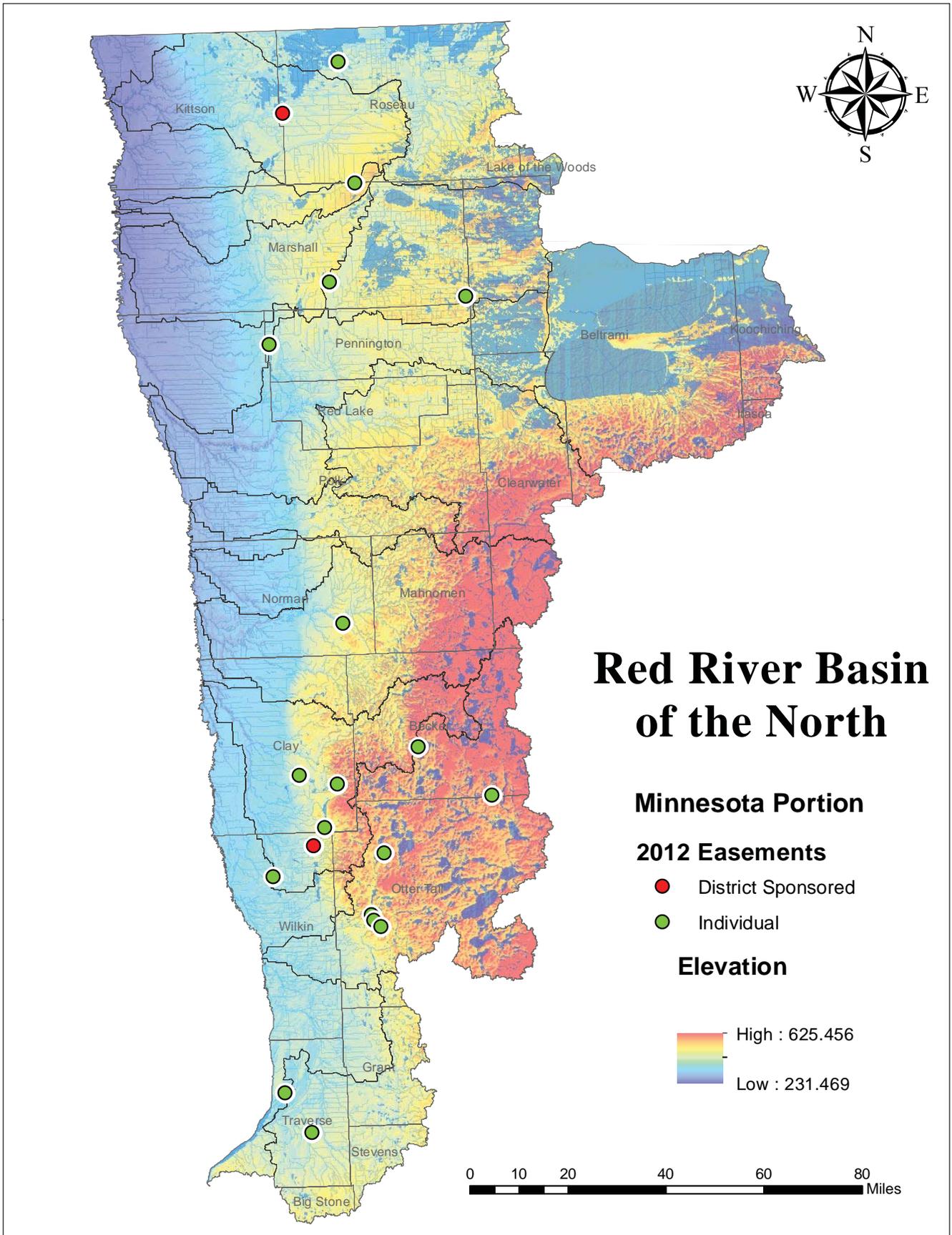
Quick WRP Restoration (before) Restoration



In addition to WRP efforts in the RRB, NRCS in cooperation with Red River Basin Commission (RRBC) installed conservation practices and systems through forty-seven new Agricultural Water Enhancement Program (AWEP) contracts on over 12,000 acres in the Basin. Twelve different counties utilized \$1,118,521 dollars of financial assistance along with NRCS technical assistance to install practices to improve water quality, soil health and conserve water.

RRBI outreach activities were highlighted by a Basin meeting and tour with NRCS Chief Dave White and Regional Conservationist Tom Christensen in November, 2011. The Chief and Mr. Christensen met with agricultural commodity groups and conservation agencies/groups to discuss wetland conservation provisions of the Farm Bill and strategies to reduce flooding in the Red River Basin.

A NRCS contribution agreement was entered into with the International Water Institute to complete the populating of GIS data layers for the Red River Basin Decision Information Network. The GIS work will be completed for the Bios de Sioux and Buffalo-Red Watersheds. This information will result in further development of GIS based tools that will assist in identifying potential retention sites in the Basin.



Map demonstrates placing WRP in the landscape to hold water back out of the valley and provide wildlife benefits.

Soil Sciences

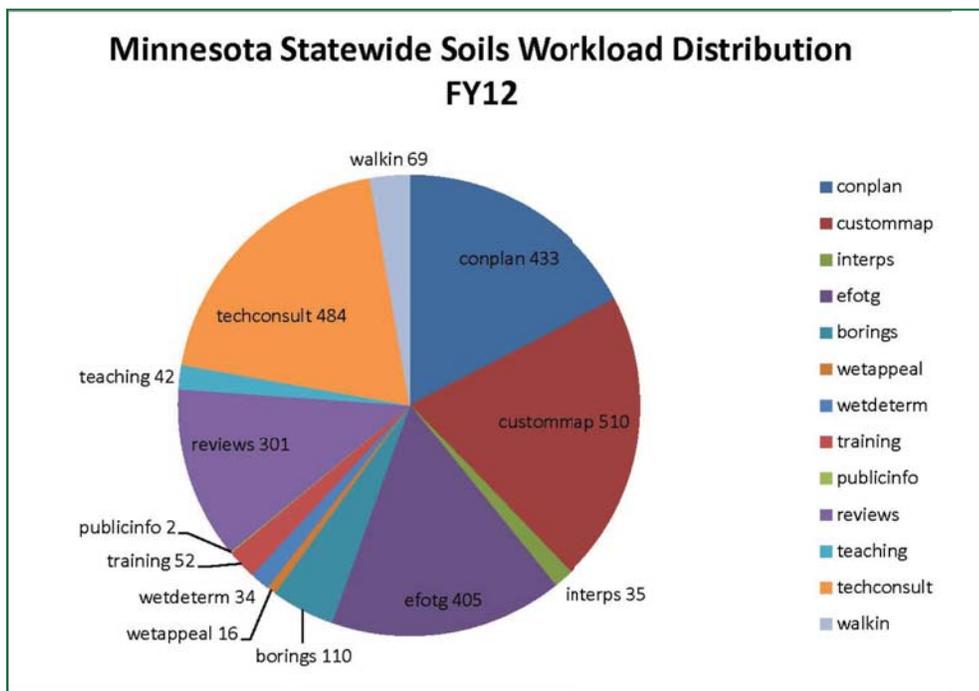
Accurate, reliable and consistently applied soils information is key to conservation planning and practice application success. Although soil mapping remains the number one task for our soil survey staffs, all soil scientists are tasked with a variety of non-mapping responsibilities. Soil survey staffs continue to work alongside the Area Resource Soil Scientists throughout the state in an effort to remain in touch with our primary user; programs. It is through this joint effort that soil survey information collected and distributed remains viable while keeping pace with the expanding diversity and sophistication of our users.

Lake, Cook, Crow Wing and Pine Counties and Voyageurs National Park are the only areas remaining to be inventoried for initial soil survey work in MN. The National Park Service is funding the Soil Survey of Voyageurs National Park. The State of Minnesota continued to support the completion of a statewide digital soil survey through a grant from the MN Environment and Natural Resources Trust Fund (ENTRF). The ENTRF funds were once again used to bring in additional soil scientists. This FY, 10 detailees from other states and four contract mappers significantly increased our statewide mapping production. In FY12, 798,901 acres were mapped or updated.

Soils information is currently available online for most in the state through Web Soil Survey, Soil Data Mart, and the eFOTG. This year, all 87 counties (91 soil survey areas) were refreshed and made available through our web delivery systems. New to this most recent statewide download are interpretations that, based on calculations, have been developed to provide uniformity and consistency in the population of various soil factors and to assist soil survey staff in efficient population of the soils database. Values for K-factor; T-factor; Wind Erodibility Group (WEG) and Index (I-factor); Hydrologic Soil Group (HSG); Steel Corrosion; and Concrete Corrosion have all been calculated. In addition to the calculated values, minor components have been added to all map units on the current legends with minimal fields populated at this time, one of which is hydric status.

The breadth of the technical soil services workload has been captured by thirteen “general categories” depicted in the following pie chart.

2012 workload distribution by number of occurrences by the state soils team



Soil Sciences



Training field office staff remains an important task for soil scientists. NRCS field staff learns how to texture and describe soil color that is routinely collected while performing on-site soil investigations.

In FY 2012 Minnesota NRCS embarked on a mission to promote Soil Health across the state. Limited tillage along with planting of cover crops and rotational grazing of livestock are all tools that will help precipitation infiltrate into the soil rather than runoff the landscape resulting in erosion and degraded water quality. There are many benefits to Soil Health for the producer which includes: lowering over-all production costs; increasing soil fertility; and creating a favorable environment for soil microbiology and pollinators.

Soil Scientists in Minnesota have been actively involved with Soil Health issues. The Area Resource Soil Scientists across the state have been providing soil health training to NRCS staff, agency partners, farm groups, schools, and individuals. Each area in the state has acquired soil health demonstration kits and has received the training necessary to provide demonstrations upon request. Demonstrating the differences in the soil properties of healthy soil vs. degraded soil leave the observer with a clear take-home message relative to soil management and use.

Very warm Spring temperatures, heavy precipitation events and unprotected, bare crop fields with little residue, all combined resulting in unprecedented amounts of sheet, rill, and gully erosion scarring the vulnerable top soil.



In FY12, the 6 Area's soil scientists in MN reported 510 custom map requests for soil interpretations as thematic maps; 484 technical consultation requests for soils information; 433 requests for input into conservation plans; and 405 eFOTG guidance/maintenance requests. The number of soil borings reported was 110. The remaining workload reported and number of incidents requested is shown in the above pie chart.

Soil borings remain one of the top workloads in terms of time commitment for soil scientists throughout the state. On-site soils information collected on an as-needed basis is an integral part of technical soil services. The information collected is invaluable for the assessment, planning, and installation of many program driven applications.



50-60 5th graders went through the "Healthy Soils Station" at the Red Lake Water Festival at the Concordia Language Villages near Bemidji. Soils and the five soil forming factors were discussed, along with the link between the biological factors and healthy soil attributes.





NRCS providing assistance



NRCS providing assistance

Conservation Technical Assistance (CTA)

The Conservation Technical Assistance (CTA) Program provides technical assistance supported by science-based technology and tools to help people conserve, maintain, and improve their natural resources. The CTA program provides the technical capability, including conservation planning, design, and implementation assistance, that helps people plan and apply conservation on the land. This assistance is provided to individuals, groups, and communities who make natural resource management decisions on private, tribal, and other non-federal lands.

NRCS, through the CTA Program, provides conservation technical assistance that addresses natural resource conservation issues at the local level that are of State and national concern.

The CTA Program provides the local delivery system and the foundation technical expertise for other NRCS programs. The CTA Program is unique because it provides a substantive level of technical expertise, background and support for Federal, tribal, State and local conservation programs. The working relationships that landowners and communities have with their local NRCS staff are unique. One-on-one help through flexible, voluntary programs occurs every day in local NRCS offices. It is the way that NRCS does business, and it works.



CTA assistance - informing landowners about the Farm Bill wetland provisions in person



Wetlands Reserve Program



American Bittern

The Wetlands Reserve Program (WRP) has helped private landowners voluntarily restore, protect, and enhance wetlands and wildlife habitat on their lands since 1992. Through the WRP NRCS provides technical and financial support to landowners. Since 2008, NRCS through WRP has partnered with the Minnesota Board of Water and Soil Resources (BWSR) and Reinvest in Minnesota (RIM) Reserve Program to acquire and restore RIM-WRP Partnership easements. 2012 was another positive and successful year for this partnership effort.

The wetlands and associated uplands on these easement lands provide a variety of environmental benefits, including: migratory and resident wildlife habitat, water quality improvements, flood mitigation benefits, added economic value and carbon sequestration benefits.



Wetland

A total of 71 Prior year funded, WRP easements were closed in 2012. This included easements on 6,800 acres.

In 2012, \$26.3 million total was obligated. Of that, \$18.7 million was obligated to 106 new agreements on over 11,896 acres. The majority of these obligations included RIM funding. The RIM funding was supplied through both Capitol Investment (Bonding) appropriations and funding through the MN Sales Tax Amendment as recommended by the Lessard-Sams Outdoor Heritage Council. The remaining \$7.6 million was spend on restoration of previously closed easements.



Teal



Wetlands Reserve Program

A few special efforts are detailed below:

Drought Response - NRCS allowed emergency haying and grazing on WRP lands through compatible use authorizations. 36 emergency haying and 1 emergency grazing compatible use authorizations were approved in Minnesota on WRP easement lands.

Wetland Restoration Conservation Initiative for the Red River Basin of MN, ND and SD This initiative utilizes WRP to provide wildlife habitat and flood mitigation benefits. In 2012, \$3.2 million were obligated on over 5,097.30 acres.

Wetlands Reserve Enhancement Program (WREP)-Mississippi River Basin Healthy Watershed Initiative (MRBI) – There are Three approved MRBI project areas (Cedar River, Root River, and Sauk River/Crooked Lake). In 2012, \$238,800 were obligated on 304.1 acres.

WREP – Scott SWCD – This project is a nationally funded WREP focusing WRP in the Sand Creek Watershed in Scott, Le Sueur, and Rice Counties as well as the Prior Lake/ Spring Lake Watersheds in Scott County. This effort is focusing on wildlife habitat and waters quality as co-primary purposes. One easement was obligated on 14.6 acres.

WRP Acceleration - WRP funds were obligated to continue and accelerate all aspects of the program with Technical Service Providers (TSP's). Obligations included: \$100,000 with Ducks Unlimited both for WRP application and implementation assistance. In addition, \$250,000 was obligated with local SWCD's and BWSR for monitoring efforts.



*WOT Pothole
(Before)*



*WOT Pothole
(After)*



***The Natural Resources Conservation Service is an agency of
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