

# Redwood



## 2017 Annual Report

### Conservation Equation

Local Leadership + Local Action

=

Lasting Value

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## THANK YOU

The Redwood SWCD Board and Staff extend our sincere appreciation to the Redwood Board of Commissioners and our other conservation partners. We would like to thank Redwood County Landowners/Operators for implementing Best Management Conservation practices to help us work toward Redwood SWCD Water Quality goals.

## Board of Supervisors



### Monthly Meetings

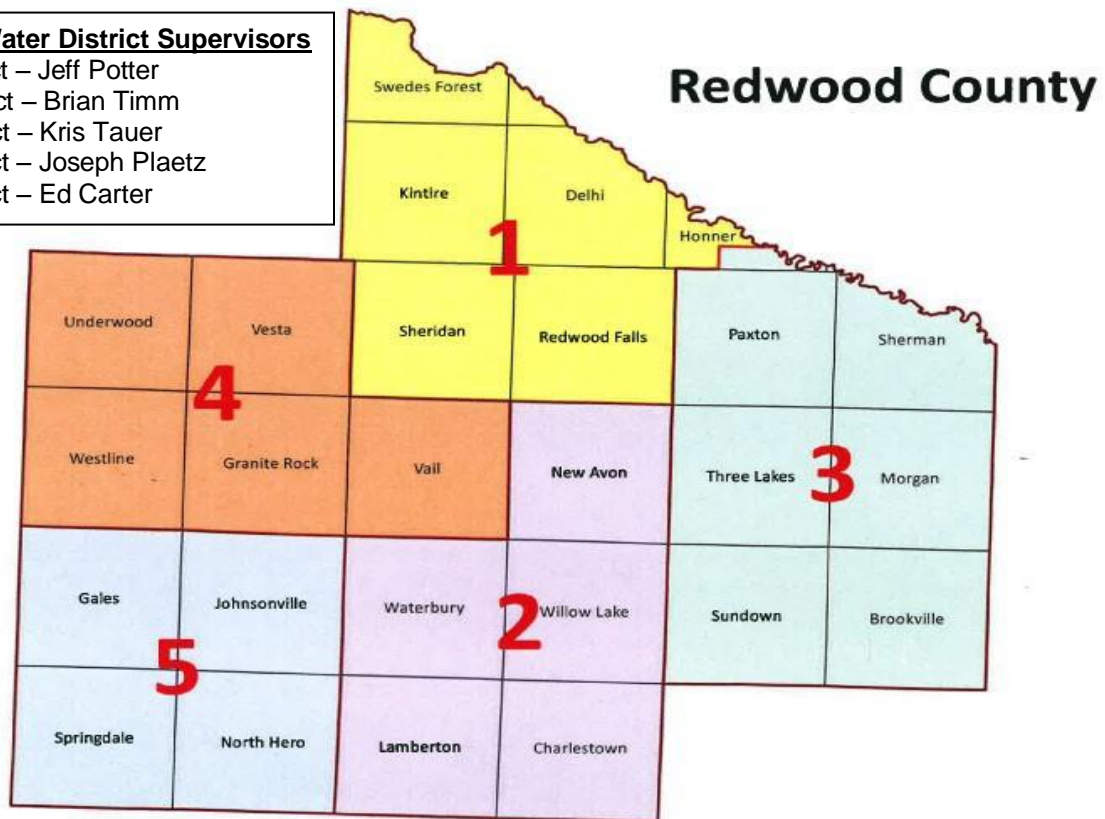
2<sup>nd</sup> Wednesday of  
every month at  
8:30 a.m.

in the meeting  
room at the Ag  
Service Center in  
Redwood Falls

Pictured left to right: Brian Timm, Ed Carter, Kristen Tauer,  
Joe Plaetz and Jeff Potter

### Soil & Water District Supervisors

- 1<sup>st</sup> District – Jeff Potter
- 2<sup>nd</sup> District – Brian Timm
- 3<sup>rd</sup> District – Kris Tauer
- 4<sup>th</sup> District – Joseph Plaetz
- 5<sup>th</sup> District – Ed Carter



# REDWOOD SOIL & WATER CONSERVATION



"Helping bring YOU clean water"

## Redwood SWCD

1241 E Bridge St.—Suite C  
Redwood Falls, MN 56283  
Phone: 507-637-2427 EXT 3  
Fax: 507-637-6002  
[www.redwoodswcd.org](http://www.redwoodswcd.org)



Pictured from left to right; Front Row: Shannon Gegner, Marilyn Bernhardson, Kari Clouse and Kristy Zajac. Back Row: Brian Pfarr and Kurt Mathiowetz.

## Redwood SWCD & NRCS Staff

### District Staff

**District Administrator**  
Marilyn Bernhardson

### **Office Assistant**

Kari Clouse

### **Conservation Specialist**

Kristy Zajac

### **Water Quality Technician**

Kurt Mathiowetz

### **Resource Specialist**

Brian Pfaff

### NRCS Staff

**District  
Conservationist**  
Shannon Gegner

## MISSION STATEMENT

The mission of the Redwood Soil and Water Conservation District is to educate and assist the citizens of Redwood County to efficiently and economically manage the soil and water resources of the county, for present and future generations.



# SERVING THE CONSERVATION NEEDS OF REDWOOD COUNTY



The Redwood Soil and Water Conservation District was established in January, 1953. Citizens of Redwood County were concerned about soil erosion by wind and water and its effect on water quality. Since the districts inception, many refer to us as 'Redwood SWCD'. The district was authorized as a result of the state legislature passing the Minnesota Soil Conservation District Law in 1937. The law enabled farmers to organize for conservation purposes and gave them the power to enter into legal agreements and provide financial aid to landowners.

Other powers and duties granted to districts include:

- Legal subdivisions of the state which can exercise public powers
- May carry out soil and water conservation measures on any land in the district with the consent of landowners
- May cooperate or enter into agreements with any governmental agency or individual landowner for the purpose of carrying on a program of erosion prevention and control.

This district is governed by five locally elected supervisors. Each is elected from one of five nomination districts in the county. The district board is charged with three basic roles:

- To establish policy that guides district staff in the day-to-day operation of the district;
- To provide guidance in the development of long and short range plans, and develop a yearly budget;
- Hire staff that will carry out the policy and plan for the district.

Redwood SWCD receives funding from Redwood County, the State of Minnesota, self-generated funds, various conservation grants and sometimes through agreements with the Federal Government.

*County Funds* - Redwood SWCD receives an annual allocation from the County that enables the district to secure technical, administrative and educational staff to implement

*State Funds* - Each district receives approximately \$120,000 administrative funds and several pass-through grants for various programs that places conservation on the ground.

*Self-Generated* - Our district has a tree matting program that earns limited funds.



# REINVEST IN MINNESOTA (RIM) PROGRAM

In 1986, the Reinvest in Minnesota Resources Act was enacted to restore certain lands to protect soil and water quality and support fish and wildlife habitat. RIM is a voluntary conservation easement program primarily designed to take sensitive cropland out of production to address a variety of concerns. The vast majority of RIM easements are permanent in duration. The RIM contract means the landowner surrenders certain rights they have to the property; cropping, haying/grazing (unless approved), general disturbance of conservation cover, and building structures or developing roads. Essentially, the landowner must keep the habitat intact. Landowners are compensated for granting these conservation easements, all the while the landowner still owns the land and manages access, pays taxes (typically reduced) and conducts the management on the parcel. This program is administered by the Board of Water and Soil Resources. Local Soil and Water Conservation Districts implement the program locally.

Since 1986, almost all of the capital bonding bills has included funding for the RIM program. Bonding dollars have been the backbone of RIM since its inception. In addition to bonding money, various other pots of money have been used to assist in acquiring these conservation easements. In Redwood County, we have easements on wetland restorations, grasslands, buffer strips, rock outcrops, calcareous fens and maple-basswood forests. Programs like RIM have been integral to protecting water quality, wildlife habitat, and threatened ecosystems on private land.



In 2008, the citizens of Minnesota voted to change to the constitution, increasing the sales tax and dedicating a large portion of that money toward clean water and wildlife habitat. It has been hugely successful, especially here in Redwood County. In addition to a large influx of money allocated by the legislature for RIM Bonding, we were able to enroll larger areas adjacent to rivers, ditches and lakes, and public water wetlands.

Currently, Redwood County has a total of **500 easements** recorded or in process since 1986. These contracts total **15,861 acres**. Local seed vendors, earthwork contractors, land management contractors, area elevators and farmers have been hired to perform the establishment, maintenance and management of these conservation lands. These lands are tremendously important for area wildlife, wildlife enthusiasts, water quality, and soil health. Having more diversity on this landscape is the basis to quality of life, ensures financial risk management, and values the land ethic for future generations. We need to continue to see value in things that don't visibly show financial value on our landscape. Conservation values are often hard to quantify, but the gap of our knowledge is lessening every day.

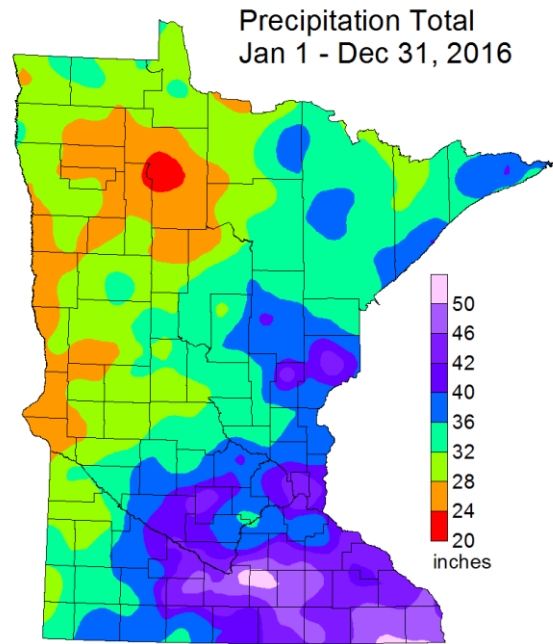
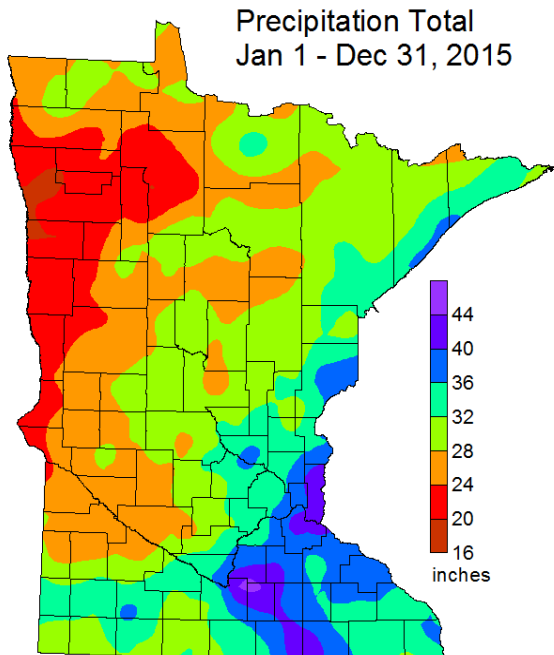
*"Biological wealth...is much more potent for long-term human welfare than is generally appreciated..." – E.O. Wilson*

# RAIN GAUGE PROGRAM

Redwood SWCD continues to cooperate with the State Climatologists Office to enlist individuals across the county to collect rainfall data. All SWCD's in the state select individuals every 12 miles across the state to collect this data. The data is used to record average rainfall data for the entire state.

Our present ran gauge holders include: Ervin Runck – Lamberton, Tom Daub – Wabasso, Mike Appel – Milroy, David Swedzinski – Milroy and Redwood SWCD – Redwood Falls.

The two photos are a comparison of rainfall in 2015 and 2016.



DNR State Climatology Office, April 13, 2017



## LOCAL WATER MANAGEMENT

Redwood SWCD is the coordinating agency for implementing Redwood County's Comprehensive Local Water Management Plan. In 2016 the water management plan was amended to include an implementation plan for 2016-2020.

### Task Force Members included:

Lon Walling – Redwood County Commissioner - Milroy  
Dennis Groebner – Redwood County Commissioner – Morgan  
Kerry Netzke – Redwood-Cottonwood Rivers Control Area  
Joe Plaetz – Redwood SWCD Supervisor  
John Hogan – Citizen and Ag. Producer  
Brad Salfer – Banker  
Scott Wold – Environmental Office  
Jim Doering – City of Redwood Falls  
Ryan Benedict – Ag Producer  
Tom Morley – Ag Producer  
Bruce Tiffany – Ag Producer  
Mike Hewitt – Ag Producer  
Larry Thielen – USDA – FSA  
Jeremy Maul – Board of Soil and Water Resources  
Shannon Gegner – NRCS – District Conservationist  
Kurt Mathiowetz – Redwood SWCD, Water Quality Technician  
Marilyn Bernhardson – Water Plan Coordinator

Task Force Committee met twice during 2017. Some of the agenda items the task force addressed:

The importance of implementing action items in Water Mgt. Plan  
Utilizing funds in the Natural Resources Block Grant for implementation  
New educational tool – Rainfall Simulator  
WRAPS – Middle Minnesota Watershed  
WRAPS – Redwood and Cottonwood Watersheds.  
Priority Areas of the County  
CRP Update  
Other Waters in the County  
Buffer Update  
Draft Nitrogen Rule

### Accomplishments:

6,766 Acres of Cover Crops  
1 Alternative Intake  
5656 Acres of Strip-till  
Published Articles in County Newsletter  
Provided funds to seal 5 Wells  
Co-Sponsored Soil Health Workshop  
Provided funds for students to attend Environmental Fair



# EROSIN CONTROL AND WATER MANAGEMENT PROGRAM

Redwood SWCD receives a grant each year from the Board of Water and Soil Resource (BWSR) to help local landowners/operators offset the costs of installing conservation practices. These funds are used to protect and improve water quality by controlling soil erosion and reducing sedimentation.

Through the State Cost Share Program, landowners/operators can request financial and/or technical assistance to implement state approved conservation practices.

This was the first program legislated for soil and water conservation districts to implement at the local level.

The program provides financial assistance up to 75% of the project cost to install best management practices such as:

- Water and Sediment Control Basins
- Grassed Waterways
- Grade Stabilization Structures
- Field Windbreaks
- Shelterbelts
- Diversions
- Terraces
- Agricultural Waste Systems

Approved construction practices include activities that stabilize critical soil erosion areas, reduce wind erosion, control gully, rill or sheet erosion, divert runoff to protect and improve water quality, control storm water runoff or protect surface, and improve or protect ground water quality.

Since 1978, Redwood SWCD has helped landowners install 354 different practices across Redwood County totaling approximately \$560,381.



Completed water and sediment control basin



# Structural Practices for Water Control

Redwood SWCD has placed high emphasis on controlling the surface runoff and keeping the water where it lands. In order to establish these structural practices a variety of funding sources are used.

Interest from Redwood County producers continues to grow throughout the county to install Best Management Practices (BMP's) that are engineered to construct structures that hold back the water from entering water courses, such as rivers streams or ditches.

In 2017, 43 structures were installed to control water and prevent gully erosion. A summary of the practices that were installed to accomplish erosion control were:

- 9 Grade stabilization structure
- 32 Water and sediment control basins
- 2 Streambank protections

Each of these practices has its own purpose for controlling water and preventing gullies:

Grade stabilization structure is to slow and hold the surface water that is coming off watersheds in a ponding area.

Water and sediment control basins are installed to hold water for a period of time and meter the water out so it can slow the water entering the streams and ditches.

Grade stabilization structures and basins are instrumental in slowing water down to help prevent flooding that occurring downstream.

Grassed waterways are installed to convey water down a slope to prevent a gully from forming. Grassed waterways are installed in areas where watersheds are too big for basins and grade stab to hold the water.

Streambanks and shoreline protections were installed in areas where property and or cropland is being threatened to be eroded away. This due to extreme weather events and added drainage that occurred within the watersheds.

All of these BMP's are installed to reduce sediment and phosphorus loading that is occurring to the ditches and streams.

## FARM BILL PARTNERSHIP



The farm bill partnership position continues to bring additional conservation acres to Redwood County. In 2016, 332 CRP contracts totaling 2,950 acres were placed under protection utilizing the following practices:

Buffers/Filters	464 Contracts	1,541 Acres
Wetlands	143 Contracts	3,982 Acres
SAFE	29 Contracts	370 Acres
Pollinators	2 Contracts	4 Acres

Redwood SWCD, once again, received funding to staff a three quarter time position to accelerate the implementation of state and federal conservation programs.

Redwood SWCD continues to participate in the Farm Bill Partnership to promote conservation practices on private land using USDA Farm Bill programs; e.g. CRP. This partnership also allows the SWCD to work with conservation programs to protect and enhance wildlife habitat and improve water quality. During 2014, we were very busy sending buffer strips and wetlands restoration proposals to encourage enrollment in a conservation program. The interest in Redwood County for RIM continues to be impressive.

Under this partnership, we work with the USDA NRCS and FSA to target lands for conservation practices, assist the landowner and governmental agencies in following through with sign-ups and provide technical guidance on practice establishment and maintenance.

With new enrollees and re-enrollments contracts were signed into the following practices: grassland establishment, pollinator plantings, buffer strips, farmstead shelterbelts, living snow fences, field windbreaks and wetland restorations. Redwood County has been very successful in maintaining continuous CRP practices and our hope is for this to continue in to the future.





# AG BEST MANAGEMENT PROGRAM

Redwood Soil and Water Conservation District administers the Ag Best Management Loan Program offered by the Minnesota Department of Agriculture (MDA).

The loan program provides low interest financing to farmers, rural landowners, and agriculture supply businesses for the implementation of best management practices that improve water quality problems in Redwood County. Loans are provided for projects that meet the goals in Redwood County's Comprehensive Local Water Management Plan.



Strip till unit

Lenders work with local banks, who use MDA's to secure These low interest loans.

Some activities that have qualified for low interest loans in Redwood County include:

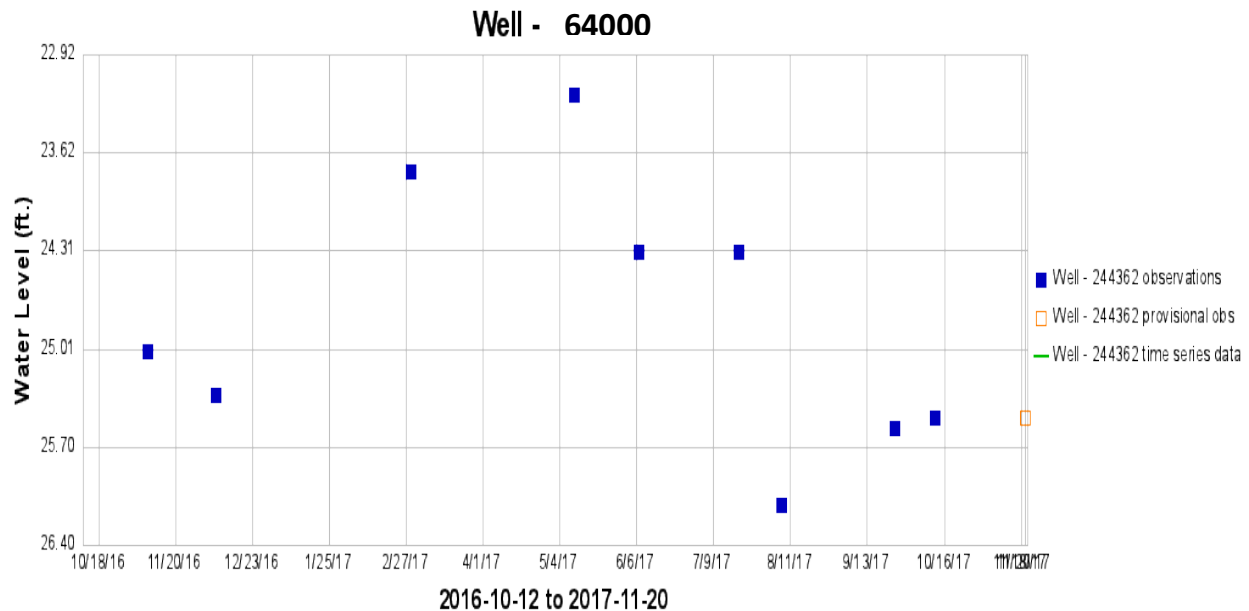
- Feedlot improvements to treat a pollution problem
- Manure handling equipment
- Conservation Tillage equipment to leave minimum of 30% residue
- Upgrade out-of-compliance individual septic systems
- New well construction if old well is contaminated by proof of water test.

Through 2016, this program has provided low interest loans in the amount of \$2,550,581 in the following categories:

Ag Waste Management	17	\$ 910,014
Conservation Tillage	60	\$1,206,768
Septic System Upgrades	68	\$ 489,903
Drill New Well/Sealing	2	\$ 42,500
Manure Separator	1	\$ 100,000
Y-Drop Nutrient Side Application	1	\$ 7,830

## WELL OBSERVATIONS

Eight times a year, the SWCD staff measures State of Minnesota observation wells in Redwood County and reports to the MN DNR the water levels of each well. The six (6) wells we monitor are from Redwood Falls south to Sanborn and west to the County line. One of these wells has been monitored since 1952; another since 1972; the others were installed in 2008 and 2010. These wells provide the state with information about ground water levels. The readings in these wells have shown mixed results in water levels.



The 240 feet, well in the above illustration located at the Plum Creek Cheese Company in Walnut Grove. This record is from October, 2016 to November, 2017. This well along with most of the other wells show water levels fluctuates significantly from one reading to the next. This type of data is very valuable when we talk about water supply, aquifer levels, and groundwater recharge. To find out information about water levels check the Minnesota Climatological Working Group website at [http://climate.umn.edu/ground\\_water\\_level/](http://climate.umn.edu/ground_water_level/).



# WETLAND CONSERVATION ACT (WCA) PROGRAM

Wetland regulation can be difficult to decipher with overlapping jurisdictions of various agencies. WCA is a state law that applies to all lands, regardless of location. As a response to the public concern about the disappearance to wetlands in Minnesota, the Minnesota Legislature approved and signed into law the Wetland Conservation Act in 1991. The purpose of WCA is clear:

- i) achieve no net loss in quantity, quality, and biological diversity of existing wetlands;
- ii) increase the quantity, quality, and biological function of Minnesota's wetlands by restoring or enhancing degraded or drained wetlands;
- iii) avoid adverse impacts to wetlands from activities that destroy or diminish quantity, quality, or biological diversity;
- iv) replace wetland values where avoidance of an activity is not feasible or prudent.

The Redwood SWCD is the designated WCA Local Unit of Government (LGU) under resolution from the Redwood County Board of Commissioners. The MN Board of Soil & Water Resources (BWSR) provides oversight and the MN Department of Natural Resources (DNR) conducts enforcement activities. WCA requires any persons proposing impacts to wetlands go through the process of submitting an application for review.

## 2017 – Summary of Accomplishments

- 1. Provided assistance to 27 individuals
- 2. Applications – 6
- 3. Replacement Plan – 1
- 4. Enforcement Actions – 1
- 5. Trainings – 6 (9.7 credits)

The Redwood SWCD works with the Redwood County Highway Department to review road projects and conduct delineations where necessary. Additionally, staff regularly investigate potential WCA violations within the County and maintain a good relationship with the DNR Enforcement staff to help this process go smoothly. Redwood SWCD maintains a Certified Wetland Delineator on staff.



# DISASTER RECOVERY ASSISTANCE PROGRAM

Redwood SWCD received Flood Recovery funds from the 2014 Flood Recovery allocation the Minnesota Legislators approved during the 2015 Legislative Session. Board of Supervisors adopted a flood recovery policy that will remain for possible futures funds.

The funds can be used in the followings ways:

- 1) Repair best management structural practices that were damaged as a result of the heavy rains that occurred in June, 2014.
- 2) Install new best management structural practices on the landscape in areas were the heavy rains caused erosion.

We received a total of \$583,594 and have been able to make repairs on some of the damaged Best Management Practices and install new ones where over land flooding caused problems. We still have projects that need to be completed. To date we completed:

11 Grade Stabilizations	\$254,436.71
8 Water and Sediment Control Basins	\$ 9,030.55
390 feet of Streambank Stabilization	\$ 11,893.50
1 Acre of Grassed Waterway	\$ 6,592.50

We have also been able to spend some of the funds to provide technical assistance for the completion of the projects.



Example of Grade Stabilization Project completed as part of the Flood Disaster Relief

## 2017 Conservation Farmer

Redwood SWCD selected three individuals who came together to form a partnership. These three individuals with different philosophies came together in 2011 that has now formed the successful partnership. They manage a cow/calf herd on 1000 acres of land. Of the 1,000 acres, 650 acres of prime cropland has been converted to permanent pasture with plans to convert the remaining 350 acres in the near future.



From left to right: Rodney Hoffman, Corey Hultquist and Doug Eiler.

### Best Management Practice



A grade stabilization was installed to hold water on the land and provide a water facility for the livestock. With the joining for their passions they are able to provide a sustainable legacy by having healthy soils and produce healthy products for future generations. You can't have better examples of land stewardship than these three men and their families.



## CONSERVATION STEWARDSHIP PROGRAM (CSP)

The Conservation Stewardship Program (CSP) is a voluntary conservation program that encourages producers to address resource concerns in a comprehensive manner by undertaking additional conservation activities, and by improving, maintaining, and managing existing conservation activities already in place. CSP encourages land stewards to improve their conservation performance by offering annual land use payments for the operation-level environmental benefits they produce and the increase of environmental benefits while enrolled in CSP. CSP provides two types of payments through five year contracts; annual payments for installing new conservation activities and maintaining existing practices; and supplemental payments for adopting a resource conserving crop rotation. To be accepted into CSP, producers need to already be good stewards of the land, but adopt additional conservation practices on their operation during the contract to increase their operations conservation performance.

In 2017 Redwood Office renewed 9 contracts totaling 11,146 acres. Total annual payments for these 9 contracts are \$200,565. Also in 2017, a sign up was held to accept new applications. They accepted 7 new contacts enrolling 5,763 acres with total annual payments will be \$52,889.

Redwood County has a total of 66 contracts totaling 54,937 acres. Total payments will be \$3,597,448.

## ENVIRONMENTAL QUALITY INCENTIVES PROGRAM (EQIP)

The Environmental Quality Incentive Program (EQIP) is a federal program that provides technical and financial assistance to agricultural producers in order to address natural resources concerns. Redwood SWCD has successfully partnered with the Natural Resources Conservation Service (NRCS) counterparts to promote EQIP as well as other Farm Bill Programs.

The efforts have meant just over \$1,568,909 in federal financial assistance to Redwood County producers in implementing conservation measures since 2013. Practices implemented in the county through EQIP include: nutrient and pest management, rotational grazing, Cover Crops, No-Till, Ag-Waste and Structural Best Management Practices. Interest in EQIP continues to be strong.

Year	Number Funded	Funded Amount
2013	21	\$359,654
2014	23	\$309,305
2015	22	\$284,370
2016	24	\$68,243
2017	12	\$429,229

The Redwood SWCD prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program.

# Water Quality Certification Program

**Water Quality Certification Program** has been very success in Redwood County. We have had 30 individuals inquire and sign up to go through the assessment process. There have been 23 assessments completed with 17 individuals certified.

**What Is Water Quality Certification Program?** The Water Quality Certification Program is a program that provides farmers an opportunity to take the lead in implementing practices that protect our water resources. Farmers who execute and maintain good farm management practices can be certified and receive regulatory certainty for 10 years.

## **Why should Farmers Participate and how do they benefit?**

1. To help protect and improve water quality in Redwood County and in Minnesota.
2. To receive regulatory certainty.
3. To receive recognition for conservation stewardship.
4. To receive access to financial and technical assistance.
5. To help ensure land productivity for future generations.
6. To receive stability to plan for and invest in conservation practices.
7. To be part of the water quality solution.

## **What are the Benefits to the Pubic?**

The public will be assured that the certified farmers are using conservation practices that protect Minnesota's waters.

## **How do Farmers Become Certified?**

1. Application – First step is completion of an application indicating they are currently in compliance with existing regulations.
2. Assessment – Second step is the evaluation of each field within the operation using the computer model. The following items are assessed:

- Nutrient Management Factors
- Physical Field Characteristic
- Tillage Management Factors
- Pest Management Factors
- Tile Drainage Factors
- Conservation Practices



## **Water Quality Certification Program continued;**

3. Verification – Last step in the certification process is the farm field verification. The onsite visit allows farmers and the certifier to discuss water quality issues on a field-by-field basis.

After completing the three-step certification process, farmers can enter into a ten-year contract that ensures regulatory certainty from the State of Minnesota.

Once a producer completes the three-step process, they are eligible to receive \$100.00 for taking the time to go through the assessment. If they become certified, they receive an additional \$200.00.

If you are interested in seeing if you want to complete the certification process, please contact Redwood Soil and Water Conservation District 507-637-2427 Ext. 3.



## MN Buffer Law

In 2015, the MN Legislature passed a buffer law, Minn. Stat. § 103F.48, subd. 1(d), which essentially reinforced laws already on the books - the Shoreland Ordinance and Public Drainage Ditch buffers. The law requires a vegetated buffer be placed along Public Waters (50-foot average width) affected covered under the current Shoreland Ordinance and along Public Ditches (16.5-foot width). The purpose of the law is to help improve water quality in the State of Minnesota. We all know this will not fix water quality, but is one tool being used to help.

Part of the legislation included the SWCDs conducting a preliminary review of the waters in their county and assess compliance. In Redwood County, the buffer law impacts 2,421 parcels of land - overall compliance is approximately 65%. As of Nov 2017, approximately 95% of the Public Waters were compliant. 52% of ditches have existing buffers, or are planned to have the required 16.5-foot buffer. There are still about 1,500 parcels to go to be fully compliant by Nov 2018.

Using the newest 2017 imagery, the SWCD is better able to determine compliance on a parcel-by-parcel basis.

The SWCD is actively working to allocate cost-share to landowners and operators to plant these buffers. Notifying people of available funds is always difficult, but people are coming daily to request funds. We are helping direct people to other sources of funds to aid in establishing buffers. Additionally, the SWCD staff continues to provide technical support regarding the buffer law.



# Cover Crops

Cover crop establishment has been a huge success in our county. In 2017, the acreage that were reported to our office was 8,100. Many individuals who no longer need assistance from the technical staff continue to plan cover crops for soil health. We are pleased to say that each year since 2012 the cover crops acres have doubled.

## **What are Cover Crops:**

Cover crops are grasses, legumes, forbs or other herbaceous plants that are established for seasonal cover and conservation purposes.

Cover crops are typically planted in the late summer or fall around harvest. Common cover crops used in Minnesota include winter hardy plants such as rye and wheat. Other less common, but also effective cover crops include oats, barley, spring wheat, crimson clover, red clover, turnips, canola, radishes and triticale.

## **Where Should the Practice be Applied:**

Cover crops may be used on all lands needing vegetative cover for natural resource protection and they are an excellent tool for improving soil health.

## **Purpose and Benefits of Cover Crops:**

- Used for grazing in the fall after crops have been removed
- Reduce erosion from wind and water
- Increase soil organic matter
- Reduce nitrogen and phosphorus loss
- Nitrogen credits for the following years crop
- Weed suppression
- Soil moisture management
- Increase biodiversity
- Promote biological nitrogen fixation
- Reduce energy use
- Minimize and reduce soil compaction



**Things to Consider of Thinking about Establishing**

- Chemical plan to make sure there is no carry over that would damage or kill the cover crop.
- Plant cover crop in a timely manner to establish a good stand.
- Maintain an actively growing cover crop as late as feasible to maximize plant growth, allowing time to prepare the field for the next crop and moisture depletion.
- Use Clean certified seed.
- Use proper varieties that do not promote disease or pest problems.



# Rainfall Simulator

In 2017, Redwood SWCD along with Renville and McLeod SWCD's purchased a Rainfall Simulator. Rainfall Simulators provide a "seeing is believing" demonstration of how practices such as no-till farming, covers crops and prescribed grazing benefit soil health and improve the water cycle on cropland and pastureland across the state. No-till cropland and pastureland managed with prescribed grazing increase infiltration and reduce runoff and sedimentation.

A demonstration of this simulator; includes discussion of topics such as infiltration, aggregate stability, soil structure, and the relationship of these properties to runoff, erosion, and water quantity.





# 2017 Year in Review

**Redwood County Fair**



**Environmental Fair**



**Farmfest**



**2017 Tour**  
County Commissioners and SWCD Supervisors



**Wetland Restoration**

