



# Pennington SWCD

January 2020

## 2019 Outstanding Conservationists



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Scott and Kris Mostrom were named the Outstanding Conservationists for 2019. In December the Mostrom's were recognized at the Minnesota Association of Soil and Water Conservation Districts (MASWCD) Convention in Bloomington. "The Farmer" magazine presented over 70 winners with the Outstanding Conservationist Award. We were proud to have the Mostrom's represent Pennington County.

Smiley Township is home to the Mostrom Family. Scott's grandfather started the farm in 1952 and Scott took over the farm 25 years ago. Along with their children Kaden and Cassidy, they operate 800 acres and raise Angus beef cows. Three hundred and fifty acres of cropland are rotated between wheat, beans, hay, corn, and oats. This rotation prevents the invasion of weeds that producers with only a wheat/bean rotation are seeing. Scott and Kris planted a 5-row farmstead windbreak in 1999.

The Environmental Quality Incentives Program (EQIP) provided Scott an opportunity to develop and implement a prescribed grazing plan on 99 acres. Five paddocks were created allowing for 100 cow/calf pairs. Cross fencing, water pipeline, and 3 water tanks were also installed. Although rotational grazing is practiced on the other pasture acres, there is the need for fresh water and cross fencing. Scott hopes to fill in the old livestock watering ponds once all of his pastures have a watering system.

The Pennington SWCD and NRCS were utilized to make changes to the Mostrom's livestock operation. It is a large undertaking to separate one pasture into many smaller pieces. Fencing, wells, pipeline, and water tanks are expenses that pay for themselves in a short period of time as they increase the grazing season into fall. Providing fresh water to your livestock has many advantages, such as less disease and less energy spent traveling for water. Participating in available programs decreased the financial risk of implementing something new into their operation.

The Mostrom Family will also be honored at the Pennington SWCD Banquet in April. The 2019 selection was made from the Townships of North, Silverton, Cloverleaf, Roxbury, Smiley, Kratka and Wyandotte.



**PENNINGTON SWCD**  
Serving Pennington County  
Since 1948

**Office Hours**

7:30 a.m. – 5:00 p.m. M-TH  
7:30 a.m. – 4:00 p.m. F

**Mission Statement**

*Provide landowners with technical assistance in identifying and improving resource issues.*

**Board of Supervisors**

Brenda Szymanski.....Chair  
Ricky Peterson.....Vice-Chair  
Linda Hanson .....Secretary  
Greg Hilgeman .....Treasurer  
Grant Nelson.....PR&I

Board meetings are held on the third Tuesday of every month at 9:00 a.m.

**District Staff**

Bryan Malone .....  
*District Manager*  
Barb Molskness .....  
*District Coordinator*  
Peter Nelson .....  
*Water Plan Coordinator*  
Donna Christianson.....  
*Outreach Coordinator*  
Bryanna Grefthen .....  
*District Technician*  
Matt Sorvig .....  
*Resource Technician*  
Jill Fejszes .....  
*Farm Bill Biologist*

**Assisted by NRCS**

Luther Newton.....  
*District Conservationist*  
Daniel Haig .....  
*CSP Soil Conservationist*

**Assisted by RRVCSA**

Zach Foley.....  
*Engineering Technician*

\*\*\*\*\*

*An Equal Opportunity Provider and Employer*

# welcome



Bryanna Grefthen joined the SWCD staff as the District Technician in September 2019. She is originally from Gatzke, MN, and attended Grygla High School. Bryanna obtained a Bachelor of Science in Biology with minors in Chemistry and Environmental Science from the University of Minnesota-Crookston. Her previous work experience includes an internship with the Red Lake Watershed District and working as a Laboratory Analyst at RMB Environmental Laboratory in Detroit Lakes.

In her spare time, Bryanna enjoys hunting, fishing, watching football, and spending time with family, friends and her dog, Brownie. She looks forward to meeting new people in the community and participating in the different conservation programs that the Pennington SWCD has to offer.

## Unmanned Aircraft Systems

Some outlets to our legal drainage systems in Pennington County are natural watercourses that ditches connect with prior to reaching our river systems. They may even be wooded and very difficult to access. Unmanned Aircraft Systems (UAS) allows the gathering of information in areas difficult to access on foot which extends our opportunities to collect data.

A cooperative effort has been established with Northland Community and Technical College (NCTC) to inventory these outlets. This year, the college acquired a drone with LiDAR capability. Topographic images are created from LiDAR technology and will be overlaid on previous year flights to determine how much sediment is being lost in each reach. Three years of data will be used for this analysis.

The goal is to prioritize all the outlets from the most unstable to the most stable. The SWCD will then attain funding to stabilize these outlets and reduce the amount of sediment reaching our river systems.



To learn more about this unique project, check out Minnesota Public Radio (MPR) News at:  
<https://www.mprnews.org/story/2019/09/12/airborne-tech-helps-fight-waterborne-pollution-in-northwest-minnesota>.

# Novak's Receive Beautification Award

Incredible, immaculate, and impressive are a few words that describe the yard of the 2019 Rural Beautification winners, Arlene and Gary Novak. A lot of hard work has gone into creating this award-winning farmyard.

Gary and Arlene moved to this River Falls Township property and built their home in 1978. Since then, the work continued...sheds were torn down, new sheds built, and gardens created. It was a team effort, as Arlene designed, and Gary provided all the "heavy" work.

Since Arlene loves digging in the dirt, she gets most of the credit for maintaining the beautiful yard and gardens. She has a host of different perennials and annuals with something blooming each season. The front yard features daisies, hostas, roses, lilies, dahlias, and canna.

The backyard showcases their native oaks plus other varieties they have planted, such as Ohio buckeye, honeylocust, basswood, flowering crab, and fruit trees. The various perennial beds are enhanced by antiques, a garden shed, and old implements. It is also a haven for butterflies, as we witnessed several checking out the cornflower macrocephala. The backyard also features a huge spotless vegetable garden.

After visiting the yard, one would never guess that Arlene has a job at the Red Lake Watershed District, involved on several community boards, as well as assisting Gary with his full-time farming operation. It is evident that they make good use of their "spare" time!

Arlene and Gary have two grown children, Garrett (Andrea) and Jennifer (David Nelson), along with 6 grandchildren. They will be honored at the Pennington SWCD Banquet in April.

Each year the Rural Beautification Award is chosen from a different area of the county. In 2020, we will be seeking nominations from Black River, Bray, Polk Center, and Sanders Townships.



## Buffer Update

The Minnesota Statute (Sec. 103F.48), required buffers to be installed along public waters by November 1, 2017, and public ditches no later than November 1, 2018. It has now moved into the enforcement stage. Compliance checks are currently underway throughout Pennington County with corrective action notices being mailed to all landowners with parcels marked as non-compliant. If you receive a letter of non-compliance from Pennington County or have any questions about your buffer status, it is very important that you contact Matt Sorvig at 218-683-7075 or [matt.sorvig@pennington.mnswcd.org](mailto:matt.sorvig@pennington.mnswcd.org) immediately, as he can provide solutions that will bring you into compliance. Stricter penalties will be implemented next year. To view the statewide Buffer Protection Map visit: <http://arcgis.dnr.state.mn.us/gis/buffersviewer/>.



### BUFFERS

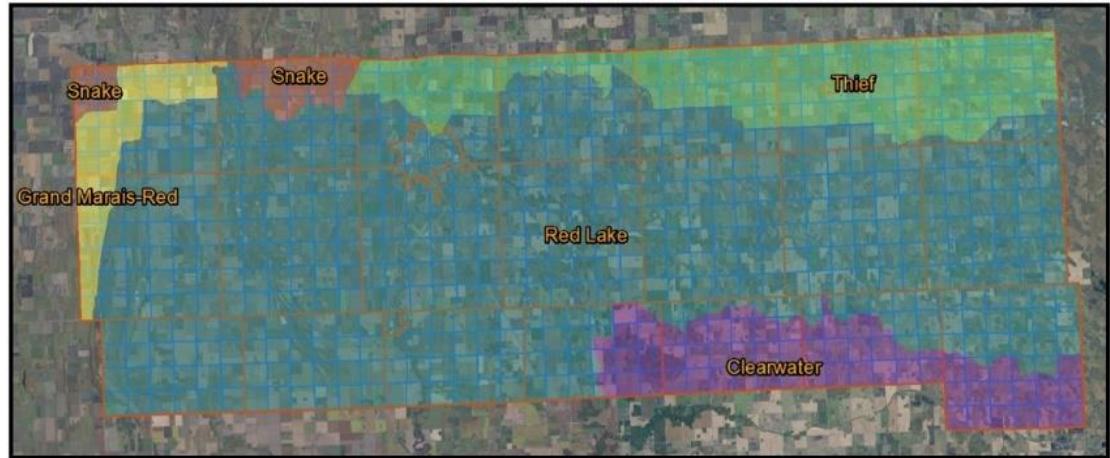
#### Pennington County Compliance Rates:

- > 90% for public  
water buffers  
< 80% for public  
ditch buffers.

November 2019

# Red Lake and Thief River One Watershed One Plan (1W1P)

The Pennington SWCD has been involved with the Red Lake River 1W1P and is currently working with neighboring local governments to complete the Thief River 1W1P. Local water plans are now being developed at the watershed scale instead of jurisdictional boundaries, such as county lines. These plans build on existing efforts, using current local water plans, state and local knowledge, and a science-based approach to watershed management. Like previous water plans, the 1W1P involves a broad range of stakeholders including local governments, state agencies, and community members.



*Partnerships and collaboration are two benefits of the One Watershed One Plan (1W1P) process.*

**Red Lake River:** Clean Water Funds are being used to implement projects identified in the plan such as grade stabilization and streambank stabilizations. There are other types of practices eligible including: cover crops, grassed waterways, and side water inlets. In addition to state funding, the completed One Watershed One Plan enabled SWCDs, the Watershed District, and NRCS to access additional federal funding through the Regional Conservation Partnership Program (RCPP) and the 319 Targeted Watershed Program. Plan partners include Pennington, Red Lake, and West Polk Counties; Red Lake and West Polk SWCDs; and the Red Lake Watershed District.

**Thief River:** The Thief River 1W1P is nearing completion. Stakeholders have viewed the draft plan and been given the opportunity to provide comments through the review process. After the public hearing, local boards need to approve the plan which will also be reviewed by the Board of Water and Soil Resources (BWSR) for approval. The final step, prior to project implementation, is local adoption of the plan. Like other One Watershed One Plans, the completed plan enables access to \$540,000.00 of new state funding to implement conservation projects identified in the plan. Local units of government participating in the Thief River 1W1P include: Marshall, Beltrami, and Pennington Counties; Marshall, Beltrami, and Pennington SWCDs; and the Red Lake Watershed District.

# 2019 Soil Health Tour



Last July, over 30 area producers and staff jumped on a bus and headed west to learn about soil health. They toured several different operations from Detroit Lakes to Bismarck. On the first day, the bus stopped at Olson Farm near Hawley, MN; Wilson farm near Jamestown, ND; and Black Leg Ranch near McKenzie, ND. The Olson and Wilson Farms showed how they used cover crops and no-till practices as tools for improving soil health. Black Leg Ranch went over the use of intensive grazing and cover crops to extend the grazing season and improve the vitality of the soil. On day two, the bus continued westward to the Menoken Farm classroom where they discussed the science of soil health and the carbon cycle. They also toured fields of season long cover crops, interseeded cover crops, rational grazing, and much more. The last stop was the Agricultural Research Service Facility in Mandan, where they took a tour of the operation and checked out their most current research. So much was learned and many new ideas were shared. It was a great way to see newer practices in action on the ground. A big thanks to the Red River Valley Area SWCDs and Natural Resources Conservation Service for hosting the event.



## Café Chat

A group of local producers had fun learning, networking, and chatting about soil health at the Café Chat in March sponsored by the Sustainable Farming Association (SFA). A big thanks to Cecil Deschene, Kent Solberg (SFA), Mikayla Tabert, Tim Szymanski, and Jeff Duchene (NRCS) for sharing their soil health thoughts and experiences with us!



## AgBMP Low Interest Loans

This year, \$2.6 million was loaned for practices that improve water quality in Pennington, Red Lake, Marshall, Polk, and Roseau Counties. These loans were made possible through the AgBMP Loan Program. Rural landowners, farmers, farm supply businesses, and water quality cooperatives are all eligible to apply. The loan application process is easy, with applications being accepted on a continual basis. First, the SWCD will review the application to determine if the practice qualifies. If it does, the applicant then chooses a lending institution to obtain a low interest loan (3 % max interest + fees). Once approved, the Minnesota Department of Ag provides the funding to the lending institution for the project. Here is a list of eligible practices:

- Septic Systems
- Well Repair/Replacement
- Conservation Tillage Equipment
- Erosion Control Practices
- Feedlot Improvements
- Manure Management
- Wetland Restoration
- Chemical Management
- Other (must improve water quality)

See your local SWCD office if you have any questions about the AgBMP Loan Program.

**“The best time to plant a tree was 20 years ago.  
The next best time is now.”**

Chinese Proverb

## ***Plant A Tree - It's Never Too Late***

It's never too late to plant trees for yourself and future generations. The Pennington SWCD will help you create your legacy and protect your home. We offer a package deal: **Planning, Planting, Protection, and Payment Assistance.**

- ✓ **Planning:** We can draw up a plan suitable for your needs and soil types. For new building sites, it is best to have your windbreak planned before the house is built and before the septic is installed. This is to ensure your trees are planted where they will offer the most protection.
- ✓ **Planting:** Leave the planting to the professionals. The SWCD staff will provide the tractor, planter, and manpower.
- ✓ **Protection:** Tree growth is enhanced by less competition. The SWCD offers a weed barrier fabric installation service and tree protector tubes to help with weed and animal control.
- ✓ **Payment Assistance:** There are programs available to help reduce your windbreak installation costs.

Don't just take our word for it. Let's hear what our cooperators say about the benefits of their windbreak:

***“In 1998, we planted the windbreak around our farmstead with the expert help of the Pennington SWCD. They drew up a plan, ordered the trees, and even came with their planter and helped plant the deciduous trees.***



Photo taken by Bryan Malone in 2010

*The windbreak has given us many benefits. It has provided us protection from the north wind and acted as a natural snow fence in the winter months. Another benefit is the wildlife that call it home. There are many different species of birds, squirrels, rabbits, fox and deer, just to name a few.*

*The benefit we have grown to cherish most is the memories we have made with our children and grandchildren. Our boys had many imaginary adventures growing up. It was our*

*walking/running/snowcat trails when they were young. Now we take our grandchildren on new adventures. We have gone “deer hunting” with sticks and play hide and seek with flashlights. We have a bonfire pit close by, so we park our ice house there in the summer and go camping with our grandchildren to spend quality time with them. They think that's the best!*

*We have reaped many benefits from this windbreak. Protection, animal habitat, and family adventures. My, have the trees grown in twenty-one years, and so have our memories! Every place in the country should have a windbreak. Contact the SWCD and get started on your adventures.”*

**Pete and Deb Carlson**

If you would like to inquire about a windbreak, stop by the SWCD Office or call 218-683-7075.

PENNINGTON SOIL AND WATER CONSERVATION DISTRICT  
 201 SHERWOOD AVENUE SOUTH  
 THIEF RIVER FALLS, MN 56701  
 (218) 683-7075

**SPRING 2020 TREE & SHRUB ORDER FORM**

**PLEASE FILL IN ALL INFORMATION OR ORDER BLANK WILL NOT BE PROCESSED. PLEASE PRINT!**

**NAME:** \_\_\_\_\_ **HOME or CELL PHONE:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_ **WORK PHONE:** \_\_\_\_\_

**EMAIL ADDRESS:** \_\_\_\_\_

The Pennington SWCD agrees to furnish said nursery stock to purchaser as only a local distributor to landowners. We express or imply no warranty as to productiveness or survival of nursery stock we furnish. We accept all orders subject to the same conditions we accept from our suppliers. You will be notified by mail when to pick up your trees. If you have any questions, please call our office at 218-683-7075. Remember once our supply of trees is depleted, we cannot obtain any additional trees. **ORDER EARLY!**

**\*\* ALL TREES ARE TO BE USED FOR CONSERVATION PURPOSES ONLY!! \*\***

**ALL TREES & SHRUBS SOLD IN BUNDLES OF 25 (except potted spruce)**

**Average Tree Size: 18 - 24 Inches**

SPECIES	MATURITY	TYPE	NO. OF BUNDLES	PRICE PER BNDL. (25)	\$ TOTAL \$
Potted Spruce (1 gal. 12-18")	50-80 Feet	EVERGREEN		\$12.00 each	
Cedar, Eastern Red	15-25 Feet	EVERGREEN		\$50.00	
Cedar, White (American Arborvitae)	40-50 Feet	EVERGREEN		\$50.00	
Pine, Red	60-100 Feet	EVERGREEN		\$50.00	
Pine, Scotch	60-80 Feet	EVERGREEN		\$50.00	
Spruce, Black Hills	60-80 Feet	EVERGREEN		\$50.00	
Spruce, Colorado Blue	60-80 Feet	EVERGREEN		\$50.00	
Ash, Green	40-60 Feet	TALL HARDWOOD		\$40.00	
Cottonwood, Siouxland	80-100 Feet	TALL HARDWOOD		\$40.00	
Hackberry	40-60 Feet	TALL HARDWOOD		\$40.00	
Maple, Silver	60-90 Feet	TALL HARDWOOD		\$40.00	
Maple, Red	50-70 Feet	TALL HARDWOOD		\$40.00	
Oak, Bur	70-80 Feet	TALL HARDWOOD		\$40.00	
Poplar, Hybrid	80-100 Feet	TALL HARDWOOD		\$40.00	
Birch, Paper	20-30 Feet	MEDIUM HARDWOOD		\$40.00	
Chokecherry, Common	20-30 Feet	MEDIUM HARDWOOD		\$40.00	
Crab, Red Splendor	15-25 Feet	MEDIUM HARDWOOD		\$40.00	
Maple, Amur	15-20 Feet	MEDIUM HARDWOOD		\$40.00	
Plum, American	20-25 Feet	MEDIUM HARDWOOD		\$40.00	
Willow, Flame	20-30 Feet	MEDIUM HARDWOOD		\$40.00	
Nannyberry	12-15 Feet	SHRUB		\$40.00	
Elderberry	6-10 Feet	SHRUB		\$40.00	
Cranberry, Highbush	10-15 Feet	SHRUB		\$40.00	
Dogwood, Redosier	12-15 Feet	SHRUB		\$40.00	
Indigo, False	8-15 Feet	SHRUB		\$40.00	
Juneberry	6-15 Feet	SHRUB		\$40.00	
Lilac, Common	8-10 Feet	SHRUB		\$40.00	
Lilac, Villosa (Late)	8-10 Feet	SHRUB		\$40.00	
Sandcherry, Western	6-10 Feet	SHRUB		\$40.00	

**Price does not include tree planting cost**

**Also Available:**

Plantskydd Deer Repellant (powder mix, granular or pre-mixed)

Tree Protector Tubes

**Subtotal** \_\_\_\_\_

**6.875% Sales Tax** \_\_\_\_\_

**TOTAL** \_\_\_\_\_

**Orders under \$100 require payment in full**

**Orders over \$100 require a minimum of 50% down payment**

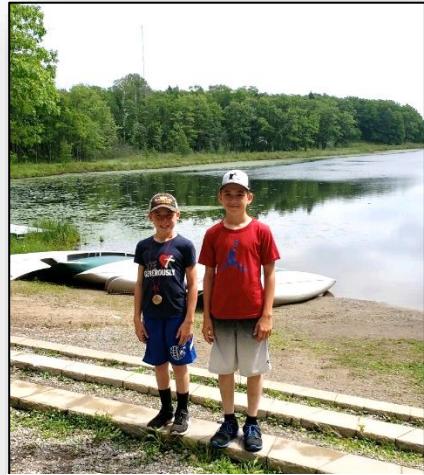
**Down Payment** \_\_\_\_\_

**AMOUNT DUE** \_\_\_\_\_

**Make Checks Payable to: PENNINGTON SWCD**

# CONSERVATION

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9



Long Lake Campers –  
Evan and Carson Rubischko



Even though Outdoor Education Day had to be held indoors this year because of the weather, 194 area sixth grade students enjoyed a fun-filled day learning about conservation.



We hope you enjoyed our booths at the Pennington County Fair and the Home Show. If you have any questions about the programs or services we offer, please stop by our office or give us a call at 218-683-7075. We'd love to visit with you.

# EDUCATION EVENTS



Everyone had a great time at the MinnAqua Fishing Clinic in Red Robe Park learning about fishing, invasive species, and boat safety.



Close to 200 students from area schools received birch trees and stickers as part of the national celebration of Arbor Month.



Six hundred and sixty fourth grade students from 23 schools celebrated the NW Minnesota Water Festival, a fun-filled day of learning centered around one of our greatest natural resources - WATER!

## "Life in the Soil: Dig Deeper" Poster Contest Winners



### Individual Winners

Ashlyn Nelson  
Chesney Salo  
Madelyn Thompson



Mural Winners - Aracely Needham, Chloe Sorenson, Patricia Hagl, Odin Mooney



Area 1 First Place Envirothon Winners  
Kittson Central

# FARM BILL PROGRAMS

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R  
V  
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S  
A

## WATER - WATER - EVERYWHERE!

Soil erosion caused by the concentrated flow of water can be a frustrating and expensive problem that can be controlled by simple systems if caught early enough. Some areas to keep your eye on are:



- Areas with high flow rates; e.g. outlets of field ditches, existing pipes for side water inlets (SWI's) and crossings, tile pump outlets
- Areas that stay saturated for long periods of time; e.g. outlets of field ditches, tile pump outlets, bare soil patches on ditches
- Areas with recent ditching or construction

The Red River Valley Conservation Service Area (RRVCSA), which serves the counties of Pennington, Red Lake, Marshall, Kittson, W. Polk, and Roseau, has received 92 engineering requests for assistance to design systems to control water erosion. Seventy-four of these requests are SWI designs which have been completed and are ready to be installed. The remaining 18 requests include 16 SWI's, 1 Grassed Waterway, and 1 Water and Sediment Control Basin.

If you are having any issues with water erosion on your property, please stop by the SWCD office and let them know. They will be happy to work with you on potential solutions toward the problem.



**EQIP** (Environmental Quality Incentives Program) is a Farm Bill Program that provides technical and financial assistance to implement conservation projects. The program can be utilized to install practices such as tree plantings, side water inlets, rotational grazing, and cover crops.

**CSP** (Conservation Stewardship Program) is a Farm Bill Program where operators maintain their current conservation efforts while incorporating new conservation improvements over a five-year contract. The program is open to cropland producers, grazers, and forest landowners that have a Forest Stewardship Plan.

**CRP** (Conservation Reserve Program) is a Farm Bill Program where landowners receive yearly payments to take land out of production, place it in temporary 10-15 year contracts, and then plant it into native cover. For more information on land eligibility, please contact Jill Fejszes at 218-683-7075 or email her at [jillian.fejszes@mn.nacdnet.net](mailto:jillian.fejszes@mn.nacdnet.net).

For more information, please call and visit with the NRCS staff about how these programs can help you meet your conservation goals.

## ***Amended Income Guidelines for Septic System Upgrade Grants***

Income guidelines for the Septic System Upgrade Grant Program have recently been amended by the SWCD. Two income tiers were added to increase eligibility for candidates with failing septic systems. A failing system can include sewage discharge to the ground surface, sewage backup into a dwelling or establishment, sewage discharge to surface waters, or systems that fail to protect groundwater. The new income guidelines for the program are as follows:

	<b>1 Person</b>	<b>2 Person</b>	<b>3 Person</b>	<b>4 Person</b>	<b>5 Person</b>	<b>6 Person</b>	<b>Cost-Share Amount</b>
<b>Low Income</b>	\$38,900	\$44,500	\$50,050	\$55,600	\$60,050	\$64,500	100%
<b>Moderate Income</b>	\$44,400	\$50,000	\$55,550	\$61,100	\$65,550	\$70,000	75%
<b>Grant Income Limit</b>	\$49,900	\$55,500	\$61,050	\$66,600	\$71,050	\$75,500	50%

If you have a failing septic system and are interested in the Septic System Upgrade Grant Program, please contact Peter Nelson at the Pennington SWCD. Applications are due April 30, 2020, and will be prioritized due to limited funding.

## **Clean Water Funds – Streambank Stabilization Projects**

The Pennington SWCD was awarded a Clean Water Fund Grant to stabilize three high priority streambanks identified in the 2017 Thief River Falls Water Quality Study.

The water quality study was funded by the SWCD in partnership with the City of Thief River Falls. Houston Engineering Inc. was contracted to complete the study which estimates the three streambank sites contribute 385 tons of sediment each year into the Red Lake River.

Stabilization of the banks at Hartz Park, Greenwood Street Bridge, and across from Oakland Park will provide protection for unimpaired waters (meets sediment standards) on this reach of the Red Lake River and reduce sediment to impaired waters (doesn't meet sediment standards) further downstream on the river.

The reduction of sediment entering the river will improve water quality, drinking water, recreation, fish habitat, and aesthetics. The projects will also protect residential homes, infrastructures such as a transportation and walking bridge, a force main for the city, and a park that many residents use for recreation.





**PENNINGTON SOIL & WATER  
CONSERVATION DISTRICT**  
201 Sherwood Ave S, Suite 3  
Thief River Falls, MN 56701-3400

PRSR STD  
**U.S. POSTAGE PAID**  
PERMIT NO. 4  
Thief River Falls, MN 56701

**TREE ORDER FORM  
ENCLOSED!**

#	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	TOTAL
1	1.12	2.11	1.33	3.53	2.2	6.5	4.35	<b>21.14</b>
2	0.33	1.92	1.89	3.00	2.05	5.35	3.96	<b>18.50</b>
3	1.05	2.11	2.58	3.75	2.01	10.88	4.05	<b>26.43</b>
4	0.31	1.96	1.87	4.49	2.20	7.85	4.03	<b>22.71</b>
5	0.62	2.19	3.31	1.22	4.14	6.03	4.21	<b>21.72</b>
6	0.71	1.68	1.86	3.49	2.17	9.26	3.84	<b>23.01</b>
7	0.00	2.19	2.62	3.40	2.94	5.53	3.71	<b>20.39</b>
8	0	0	0	0	0	0	0	<b>0.00</b>
9	0.00	2.11	1.73	4.24	1.82	5.15	4.01	<b>19.06</b>
10	0	0	0	0	0	0	0	<b>0.00</b>
11	0.79	1.97	2.16	3.89	2.43	9.77	4.14	<b>25.15</b>
12	0.99	2.12	4.68	3.7	3.84	5.64	4.25	<b>25.22</b>
13	0.52	1.84	2.74	4.73	2.07	10.34	4.41	<b>26.65</b>
14	0.89	2.01	1.23	3.55	2.54	7.61	3.43	<b>21.26</b>
15	0.85	2.43	2.16	4.02	2.62	8.53	4.34	<b>24.95</b>
16	1.14	2.01	2.65	4.49	3.48	6.27	4.17	<b>24.21</b>
17	0	1.8	1.82	4.23	1.87	9.03	4.19	<b>22.94</b>
18	0.52	2.06	2.54	3.42	3.06	4.38	0	<b>15.98</b>
19	1.40	1.81	3.43	3.63	2.66	6.49	4.27	<b>23.69</b>
20	0.59	1.31	1.78	4.43	2.62	8.41	4.44	<b>23.58</b>
<b>AVE</b>	<b>0.79</b>	<b>1.98</b>	<b>2.35</b>	<b>3.73</b>	<b>2.60</b>	<b>7.39</b>	<b>4.11</b>	<b>22.95</b>

## 2019 Rainfall Monitoring

Pennington County rainfall amounts in 2019 were not much different than 2018 until September when all that changed. We had a growing season (April thru October) average of 22.95 inches. This compares to 15.6" in 2018; 13.5" in 2017; 22.3" in 2016; 18.4" in 2015; and 19.4" in 2014. Since our program started in 1986, the growing season average rainfall amount is 18.85.

