

MINNESOTA ASSOCIATION OF WATERSHED DISTRICTS, INC



Land and Water Shall be Preserved

November 2015 - October 2016

Annual Report



The Red River of the North empties into the Netley-Libau Marsh at the southern end of Lake Winnepeg.

Photo credit: Aaron Lavinsky

2016 Board of Directors

Minnesota Association of Watershed Districts

OFFICERS

President
Secretary

Lee Coe
Barbara Haake

Vice President
Treasurer

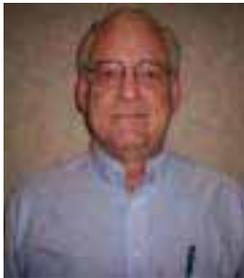
Ruth Shaefer
Craig Leiser



Lee Coe
Red Lake / Region 1 / Term 2018
3948 Nebish Road NE Tenstrike, MN 56683
612-770-3590 (C)
218-243-2597 (H)
Email: leecoe@paulbunyan.net



Ruth Shaefer
Middle Fork Crow River
Region II / Term 2016
14950 East Calhoun Road,
Spicer, MN 56288
320.212.5973 (C)
Email: ruths56288@gmail.com



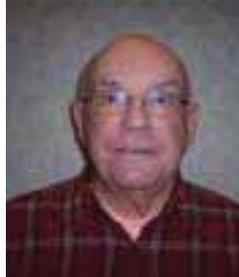
Jerome Deal
Bois De Sioux / Region I / Term 2017
1501 2nd Ave. So. Wheaton, MN 56296
320-815-2296 (C)
320-563-8377 (H)
Email: jeromeadeal@gmail.com



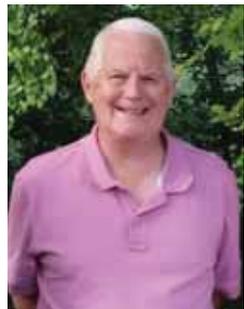
Darrel Ellefson
Lac qui Parle-Yellow Bank
Region II / Term 2017
1845 287th AVE Dawson, MN 56232
612-756-1898 (C)
320-598-3117 (O)
Email: darrele@frontiernet.net



Linda Vavra
Bois De Sioux / Region 1 / Term 2016
11305 State Highway 9
Donnelly, MN 56235
320-760-1774 (C)
320-677-2586 (H)
Email: lvavra@fedtel.net



Craig Leiser
Brown's Creek / Region III / Term 2018
10300 Kismet Lane N
Stillwater, MN 55082-9447
651-303-6545 (C)
651-439-4008 (O)
Email: craig@rotarycraig5960.com



Perry Forster
Riley Purgatory Bluff Creek
Region III / Term 2016
14500 Martin Drive Suite 1500
Eden Prairie MN 55344
952-934-0938 (C)
Email: pforster@rpbcwd.org



Babara Haake
Rice Creek / Region III / Term 2017
3024 County Road I
Mounds View, MN 55112
651-442-1022 (C)
763-786-1022 (H)
Email: trubador2@msn.com

STAFF

Ray Bohn & Peg Bohn

540 Diffley Road St. Paul, MN 55123
Phone: 651-452-8506 | Email: raybohnmg@gmail.com

Maddy Bohn

Phone: 651-900-3285
Email: bohn.maddy@gmail.com
www.mnwatershed.org



In Memoriam:

Larry Kuseske

Sauk River
2000-2016
Term 2018

Presidents Report

By: Lee Coe, MAWD President

The MAWD Board of Directors met in March 2016 at our annual planning session to discuss and prioritize our activities and legislation for 2016. We also made appointments to our MAWD committees and inter-agency advisory committees. This board meeting sets the tone and work load for the year.

The 2016 Legislative Session has to go down as one of the most disappointing sessions in the history of our state. This session had three big bills in play, the transportation funding bill, the tax bill, and the bonding bill ... none of which passed into law. Because the 2016 Session was a very short session MAWD did not include several important policy issues that will need to be addressed in future session.

MAWD's priority legislative issues for 2016 included clarifying language on the 2015 buffers legislation to enhance the implementation of the buffers law and funding for the enforcement of the legislation. In addition we advocated for sufficient funds (\$20 million) for the Flood Hazard Mitigation Program (FHM) in the bonding bill to cover the needs for the Red River Valley and other watershed districts across the state. We also advocated in the bonding bill for an additional \$500,000 for the Lac Qui Parle Yellow Bank WD (Area II) for an engineering study on two floodwater retention ponds.

On the tax side we advocated returning the effective date of local government sales tax exemption to January 1, 2016 from January 1, 2017 and for funding for the enforcement of the buffers legislation. MAWD, in partnership with the Minnesota Red Board met with key legislators and various stakeholders to attempt to make the 2015 buffer legislation workable. To that end HF3000/SF2503 was agreed to by all stakeholders and was passed into law without dissent and with the Governor's signature. This legislation addresses the major concerns we had with the lack of clarity which would have opened WDs and other LGUs to lawsuits with landowners. See our legislative update in this annual report or for a complete summary of the legislation on the BWSR web site at http://www.bwsr.state.mn.us/buffers/Chapter_85_Summary.pdf. Unfortunately because of political disagreements the House and Senate were unable to agree to a bonding bill and it died at the very last minute of the session.

In another stroke of bad luck, there was a drafting error in the Tax Bill which would have cost the state \$100 million in revenue which caused the Governor to veto the bill. While there were attempts to revive both bills for special session action, it did not happen due to ongoing political disputes. The work of our 2016 Legislature was never completed. MAWD's Legislative Reception & Day at the Capitol was again a great opportunity to meet with local legislators and explain and promote our legislative priorities for the session. Over seventy watershed managers and staff met with their local legislators at the capitol and Embassy Suites Hotel to discuss watershed district issues. Thank you for your continued support of our legislative program.

The MAWD Summer Tour was held in the Winona area and presented attendees with the opportunity to view firsthand how both an organic farm and 1500 cow dairy meet their water quality requirements and provide food for our citizens. In addition, Summer Tour attendees toured the Lock & Dam No. 5 and toured the flood damage from the 2007 flood in the Stockton area. It was a very informative and interesting tour.

MAWD, along with the Association of MN Counties and the MN Association of Soil and Water Conservation Districts through the Local Government Roundtable planned and held a series of regional meetings so LGUs could meet with the state agencies involved in this legislation to get on the same page in the implementation and enforcement of the buffers law. The meetings began in August and were well attended by all three LGUs.

It is my sad duty to report that Larry Kuseske, our Region 2 Director and chair of our resolutions committee was killed in an auto accident in October. We were all saddened by this loss and will miss his insight and experience. Our sympathies go out to his wife Susan and the entire Kuseske family.

I want to thank the current board of directors who have worked so hard for watershed districts across the state this past year. Larry Kuseske, Region 2, Sauk River, Craig Leiser, treasurer, Region 3, Brown's Creek, Jerome Deal, Region 1, Bois de Sioux, Darrel Ellefson, Region 2, Lac Qui Parle-Yellow Bank, Ruth Schaefer, vice-president, Region 2, Middle Fork Crow River, Perry Forster, Region 3, Riley Purgatory Bluff Creek, Linda Vavra, Region 1, Bois de Sioux, Barb Haake, Region 3, Rice Creek. Also thanks to Ray and Peg Bohn for their very capable administrative and lobbying service to our organization. And a big thanks for allowing me to serve as your president for the past two years. It has been a wonderful opportunity and we on the board appreciate all of your support over the years.

Unfortunately, all good things must come to an end and in that regard I am announcing my retirement from the Red Lake WD board of managers effective in January. Consequently, I will not be able to stay on the MAWD Board so I will be stepping down effective immediately after the Annual Meeting. It has been a pleasure being associated with such a fine group of citizens who are so committed to good water management in the State of Minnesota. I wish you all continued success and best wishes.

BUFFALO RIVER RESTORATION HAWLEY, MINNESOTA

Background

After the straightening of the original Buffalo River channel through the City of Hawley, MN, the increased channel bottom grade caused erosion problems, resulting in bank stability issues at various locations within the channel in Hawley.

A significant bank failure occurred adjacent to a trailer court north of US 10. Continued bank failure posed an imminent threat to the sanitary sewer collection system for the City of Hawley as well as a potential safety issue for residents of the trailer court. In the fall of 2009, a bench was constructed along the bank failure to improve soil stability. Although proving to be a viable solution for this localized area, it failed to fix the underlying problem of the straightened channel.

The City of Hawley approached the Buffalo-Red River Watershed District (BRRWD) for options to mitigate erosion issues along the river. The BRRWD and the City determined the best alternative would be to restore portions of the Buffalo River to a more natural channel with input from river restoration experts from Houston Engineering and the Minnesota DNR.

The river restoration completed in two phases resulted in a longer channel length and a decreased channel gradient, ultimately reducing velocities and the subsequent erosion occurring along this reach of the Buffalo River.

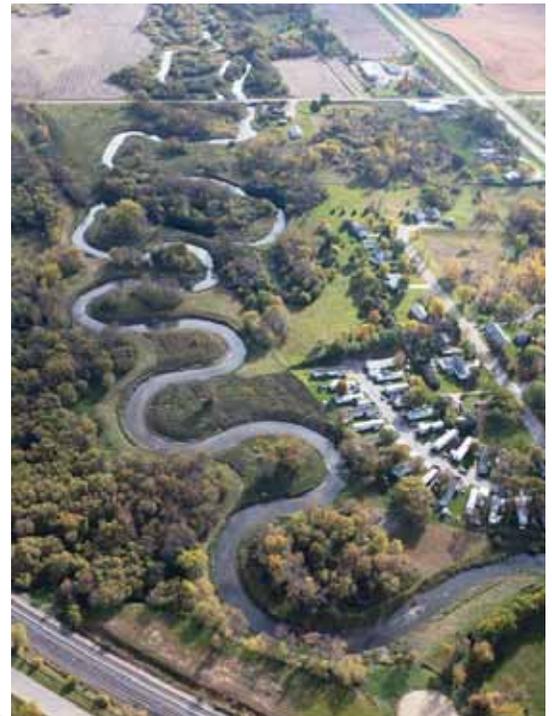
The Project

The project restored approximately 10,230 feet of channel, which increased the total length of the Buffalo River channel through Hawley by approximately 2,650 feet.

Project features included:

- ◆ Installation of approximately 11 rock riffles
- ◆ Excavation of pools located downstream of rock riffle locations
- ◆ Installation of wooded debris bench along outside bends of the restored channel
- ◆ Removal of Junction Avenue (Old Highway No. 2)
- ◆ Improvement of Eglon Township Road and bridge as mitigation for the removal of Junction Avenue

Phase 1 of the of the river restoration project, located north of US 10, was completed in 2015. The Phase 1 channel cross section is approximately 5 feet deep with a top width of 52 feet during the bank-full flow condition. Phase 2 of the of the river restoration project, located south of US 10, was completed in 2016. The Phase 2 channel cross section is approximately 5 feet deep with a top width of 60 feet during the bank-full flow condition. There is an additional 2 feet of depth at pool locations.



For more information:
brrwd.org

Minnesota Association of Watershed Districts - Directory:

Bear Valley

25409 County 16 Blvd.
Goodhue, MN 55027-8602
Phone: 612-923-4038
Region III

Belle Creek

Rt. 1, Box 158
Goodhue, MN 55027
Phone: 612-258-4115
Region III

Bois De Sioux

704 South Highway 75
Wheaton, MN 56296
Phone: 320-563-4185
Administrator: Michelle Swenson
bdswd@frontiernet.net
Region I

Brown's Creek

455 Hayward Ave N
Oakdale, MN 55128
Phone: 651-330-8220 x26
Administrator: Karen Kill
karen.kill@mnwcd.org
Region III

Buffalo Creek

Box 55
Glencoe, MN 55336
Phone: 320-587-9143
Contact: Corey Henke
coreyh@bcwatershed.org
Region II

Buffalo-Red River

1303 4th Avenue NE, Box 341
Barnesville, MN 56514
Phone: 218-354-7710
Administrator: Bruce Albright
general@brrwd.org
Region I

Capitol Region

1410 Energy Park Drive, Suite 4
St. Paul, MN 55108
Phone: 651-644-8888
Administrator: Mark Doneux
mark@capitolregionwd.org
Region III

Carnelian-Marine-St. Croix

21150 Ozark Avenue, PO Box 188
Scandia, MN 55073
Phone: 651-433-2150
Administrator: Jim Shaver
jshaver@cmscwd.org
Region III

Cedar River

1408 - 21st Avenue NW, Suite 2
Austin, MN 55912
Phone: 507-434-2603
Contact: Justin Hanson
justin.hanson@mowerswcd.org
Region II

Clearwater River

75 Elm Street E Box 481
Annandale, MN 55302
Phone: 320-274-3935
Administrator: Cole Loewen
cole.loewen@crwd.org
Region II

Comfort Lake - Forest Lake

44 Lake Street South #A
Forest Lake, MN 55025
Phone: 651-209-9753
Administrator: Mike Kinney
michael.kinney@clflwd.org
Region III

Coon Creek

12301 Central Av NE #100
Blaine, MN 55434
Phone: 763-755-0975
Administrator: Tim Kelly
tkelly@cooncreekwd.org
Region III

Cormorant Lakes

10929 County Highway 5
Pelican Rapids, MN 56572
Phone: 218-532-5025
Administrator: Liz Larson
admin@clwd.org
Region I

Crooked Creek

805 N Highway 44/76, Suite 1
Caledonia, MN 55921
Phone: 507-724-5261
Region II

Heron Lake

PO Box 345
Heron Lake, MN 56137
Phone: 507-793-2462
Administrator: Jan Voit
jan.voit@mysmbs.com
Region II

High Island

c/o C. Thomas Wilson, Attorney
2700 South Broadway, P.O. 458
New Ulm, MN 56073
Phone: 320-328-5908
Region II

Joe River

Box 27
Humboldt, MN 56731
Phone: 218-379-3205
Contact: John Finney
finney@invisimax.com
Region I

Kanaranzi- Little Rock

1567 McMillian Street, Ste 3
Worthington, MN 56187
Phone: 507-376-9150 Ext. 3
Administrator: Sabrina Raddle
Sabrina.raddle@nolbecswcd.org
Region II

Lac Qui Parle-YellowBank

600 6th Street, Courthouse #7
Madison, MN 56256
Phone: 320-598-3117
Administrator: Trudy Hastad
trudy.hastad@lqpc.com
Region II

Lower Minnesota River

112 E 5th Street #102
Chaska, MN 55318
Phone: 612-306-5802
Administrator: Linda Loomis
naiadconsulting@gmail.com
Region III

Middle Fork Crow River

189 County Road 8 NE Box 8
Spicer, MN 56288
Phone: 320-796-0888
Administrator: Margaret Johnson
margaret@mfcrow.org
Region II

Middle-Snake-Tamarac Rivers

453 N McKinley St. Box 154
Warren, MN 56762
Phone: 218-745-4741
Administrator: Brent Silvis
brent.silvis@mstrwd.org
Region I

Minnehaha Creek

15320 Minnetonka Blvd.
Minnetonka, MN 55345
Phone: 952-641-4505
Administrator: Lars Erdahl
lerdahl@minnehahacreek.org
Region III

Nine Mile Creek

12800 Gerard Drive
Eden Prairie, MN 55436
Phone: 952-835-2078
Administrator: Randy Anhorn
rahorn@ninemilecreek.org
Region III

North Fork Crow River

1030 Front Street - PO Box 40
Brooten, MN 56316
Phone: 320-346-2869
nfcrrwd@tds.net
Region II

Okabena Ocheda

960 Diagonal Road PO Box 114
Worthington, MN 56187
Phone: 507-372-8228
Administrator: Dan Livdahl
dan.livdahl@okabenaocchedawd.org
Region II

Pelican River

211 Holmes St W, Suite 201
Detroit Lakes, MN 56501
P: 218-846-0436
Administrator: Tera Guetter
Tera.Guetter@arvig.net
Region I

Prior Lake Spring Lake

4646 Dakota Street SE
Prior Lake, MN 55372
Phone: 952-447-4166
Administrator: Diane Lynch
dlynch@plslwd.org
Region III

Ramsey Washington Metro

2665 Noel Drive
Little Canada, MN 55117
Phone: 651-792-7950
Administrator: Tina Carstens
tina.carstens@rwmwd.org
Region III

Red Lake

1000 Pennington Avenue South
Thief River Falls, MN 56701
Phone: 218-681-5800
Administrator: Myron Jesme
rlwaters@wiktel.com
Region I

Rice Creek

4325 Pheasant Ridge Drive, Suite 611
Blaine, MN 55449-4541
Phone: 763-398-3070
Administrator: Phil Belfiori
pbelfiori@ricecreek.org
Region III

Riley-Purgatory Bluff Creek

8080 Mitchell Rd
Eden Prairie, MN 55344
Phone: 952-607-6512
Administrator: Claire Bleser
cbleser@rpbcwd
Region III

Roseau River

108 3rd Avenue SW
Roseau, MN 56751
Phone: 218-463-0313
Administrator: Tracy Halstensgard
rrwd@mncable.net
Region I

Sand Hill River

P. O. Box 584 Fertile, MN 56540
Phone: 218-945-3204
Administrator: Dan Wilkens
shrwd@gvtel.com
Region I

Sauk River

524 South 4th Street
Sauk Centre, MN 56378
Phone: 320-352-2231
Administrator: Scott Henderson
scott@srwdmn.org
Region II

Shell Rock River

214 W. Main Street
Albert Lea, MN 56007
Phone: 507-377-5785
Administrator: Brett Behnke
brett.behnke@co.freeborn.mn.us
Region II

South Washington

2302 Tower Drive
Woodbury, MN 55125
Phone: 651-714-3729
Administrator: Matt Moore
mmoore@ci.woodbury.mn.us
Region III

Stockton- Rollingstone-MN City

PO Box 129
Stockton, MN 55988
Phone: 507-689-2546
Region II

Turtle Creek

1048 21st Ave NW
Hollandale, MN 56045
Phone: 507-434-2603
Administrator: Steve Lawler
steve.lawler@mowerswcd.org
Region II

Two Rivers

410 South 5th Street, Suite 112
Hallock, MN 56728
Phone: 218-843-3333
Administrator: Dan Money
daniel.money@mn.nacdnet.net
Region I

Upper Minnesota River

211 2nd Street SE
Ortonville, MN 56278
Phone: 320-839-3411
Administrator: Dianne Radermacher
dianne.radermacher@midconetnetwork.com
Region II

Valley Branch

P.O. Box 838
Lake Elmo, MN 55042
Phone: 952-832-2622
Contact: John Hanson
jhanson@barr.com
Region III

Warroad River

307 Lake Street NE
Warroad, MN 56763
Phone: 218-386-4520
Contact: Rick Battles
watershed@mncable.net
Region I

Wild Rice

11 East 5th Avenue
Ada, MN 56510
Phone: 218-784-5501
Administrator: Kevin Ruud
Kevin@wildricewatershed.org
Region I

Yellow Medicine River

122 North Jefferson Street, Box 267
Minneota, MN 56264
Phone: 507-872-6720
Administrator: Emily Javens
ymrw@centurytel.net
Region II

2016 Legislative Session Report

By: Ray Bohn, MAWD Coordinator

The 2016 Legislative Session has to go down as one of the most disappointing sessions in the history of our state.

This session had three big bills in play, the transportation funding bill, the tax bill, and the bonding bill ... none of which passed into law.

MAWD's priority legislative issues included clarifying language and additional funding on the 2015 buffers legislation to enhance the implementation of the buffers law, we also advocate for sufficient funds (\$20 million) for the Flood Hazard Mitigation Program (FHM) in the bonding bill to cover the needs for the Red River Valley and other watershed districts across the state.

In addition, we advocated for an additional \$500,000 for the Lac Qui Parle Yellow Bank WD (Area II) for an engineering study on two floodwater retention ponds. On the tax side we advocated for returning the effective date of local government sales tax exemption to January 1, 2016 from January 1, 2017.

Buffers Legislation: Rep. Torkelson on the House side and Senator Skoe on the Senate side worked with various stakeholders to make the 2015 buffer legislation workable. To that end HF3000/SF2503 was agreed to by all stakeholders and was passed into law with the Governor's signature. This legislation addresses the major concerns we had with the lack of clarity which would have opened WDs and other LGUs lawsuits with landowners. See the complete summary of the legislation on the BWSR web site at http://www.bwsr.state.mn.us/buffers/Chapter_85_Summary.pdf.

The LGUs sponsored a series of regional meetings to meet with the state agencies involved in this legislation so we all get on the same page on the implementation and enforcement of the buffers law. The meetings were held in August around the state and were well attended.

Tax Bill

Buffer Implementation Funding: During the discussion of this legislation we indicated that funding would be needed for WDs and Counties to implement our enforcement part of the bill. To that end \$10 million was appropriated in the Tax bill with a formula dependent upon miles of ditches and shoreline under their respective jurisdiction.

The funding would flow through Local Government Aids to counties and watershed districts. It provided for a maximum of \$200,000 per county and a minimum of \$45,000 if they agree to enforce the statute. Funding would be provided proportionally to areas within a county with WD jurisdiction from the county to the WD.

Unfortunately, the Tax bill was pocket vetoed by the Governor so that funding is now dead. We will continue with efforts next year to ensure funding for this work, but nothing can be guaranteed at this point.

Sales Tax Exemption: WDs were included in language last year that moved our pending sales tax exemption from January 1, 2016 till January 1, 2017. We advocated a return to the Jan 1, 2016 date. Legislation was introduced by Sen. Ann Rest (SF2249) and Rep. Mike Freiberg (HF2387) to return to the 2016 date, but no action was taken in the Tax bill on this provision, but that obviously didn't matter because there was no tax bill.

Capital Investment:

Flood Hazard Mitigation: Watershed districts and others throughout the state needed to get at least \$18-20 million for the FHM program in order to get enough in the DNR flood program to cover all the pending ready to go statewide flood needs. These total dollars would be spread around the entire state to meet flood projects ready to go. Unfortunately the bonding bill failed to pass so no funding is available. The final bill included \$11.55 million but included some ear marks that would have had a negative impact on WD projects ready to go in the RRV and other areas in the state.

RIM & Local Roads Replacement: In addition, the Governor's request for \$30 million for BWSR as a match with the FSA for RIM and to implement a new CREP in Minnesota was reduced to \$10 million in the final bill. The Governor's recommendation of \$5 million for the Local Gov't Roads Wetland Replacement Program was fully funded in the final bill.

Area II Flood Retention: The Laq Qui Parle Yellow Bank WD requested \$500,000 through the Area II Flood Retention program for an engineering study for two retention ponds. The final bill did not fund this request.



(Legislative update continued):

Unfortunately the Capital Investment Bill did not pass.

Other issues covered by the RRWMB included:



- a. **GENERAL FUND CHAPTER 189, HF2749:** The bill appropriates \$178,000 (one time money) to DNR for a grant to the MSTRWD for modeling along the agr levy reach along the Red River north and south of Oslo. The money must be matched by ND interests. The MSTRWD has been working with the BTAG group regarding the modeling. The appropriation is available until June 30, 2018. BTAG is a representation of townships in MN and ND and Oslo.
- b. **LEGACY SF2527:** The appropriations included \$828,000 for the SHWD to restore and enhance fish passage and habitat and also included \$2,763,000 for the RRWD and the Roseau Lake Bed restoration.
- c. **LCCMR SF2963:** \$65,000 is for Roseau Lake watershed to use IWI's Water Quality App to develop targeted water quality implementation options for the watershed. Would be done in coordination with the Roseau Lake project.
- d. **LANDS SF2760:** Include provisions for the exchange of School Trust lands; disposition of Acquired WMA lands and protection & enhancement of a fen as part of the Klondike projects. Provides timeframes to decisions on the WMA land disposition.

Keep up to date with the latest news on Minnesota's Legislature!

Minnesota State Legislature information:
leg.state.mn.us



Visit the MAWD website: mnwatershed.org

Follow and Like us on social media!



@mnwd46



Minnesota Association of Watershed Districts



2015 Program of the Year

Riley Purgatory Bluff Creek



The Riley Purgatory Bluff Creek Watershed District (RPBCWD) took home the Program of the Year award at the Minnesota Association of Watershed Districts' annual meeting in December. The winning program, Creek Restoration Action Strategy (CRAS), is a tool for identifying stream reaches in greatest need of restoration. Prioritizing projects can be challenging, especially when the potential sites span multiple creeks and cities. The CRAS is a method of comparing among sites and determining which locations are in most need of help. District staff laid the foundation of the strategy by walking the length of each of the three creeks (Riley, Purgatory, Bluff) and assessing wildlife habitat and the amount of erosion. Other factors that are considered in the evaluation include: water quality, infrastructure risk, and the potential for partnerships and education.

RPBCWD Administrator Claire Bleser was excited not only for the award, but also for the potential of this new tool: "The CRAS has helped us to better understand our creeks, and to focus District efforts on high-benefit projects in a cost-effective manner. As we continue to update it with new information over time, we will continue to grow this understanding, and our capacity to protect, manage, and restore our water resources."

The CRAS was developed by the Riley Purgatory Bluff Creek Watershed District (RPBCWD) and Barr Engineering, with input by community, city, and state partners.

For more information please visit:

http://www.rpbcwd.org/files/7114/4952/2230/Final_CRAS_Report_Nov_2015_2.pdf



From left to right: Richard Chadwick (manager), Mary Bisek (manager), Leslie Yetka (manager), Josh Maxwell (staff), Jill Crafton (manager), Michelle Jordan (staff), Claire Bleser (staff), Perry Forster (manager) and Gerry Van Amberg



2015 Employee of the Year

Dan Wilkens, Sand Hill Watershed District Administrator



Recognizing Excellence in Conservation

The Minnesota Board of Water and Soil Resources (BWSR) announced that Dan Wilkens, District Administrator for the Sand Hill Watershed District, has been honored as the 2015 Outstanding Watershed District Employee of the Year.

Dan was involved in the creation of the Sand Hill River Watershed District in 1975. He served as a manager until 1999 when he became the district administrator, the position he holds today. As a key public face of the district, Dan wears many hats. He has served in administrative, outreach, planning and coordination roles during his time with the district, working on agricultural drainage management, flood control, water quality, and other natural resource enhancement issues.

He is a leader on Red River Basin flood control and statewide drainage issues, traveling many miles within Minnesota and Manitoba to provide an agricultural, watershed, and Red River Basin perspective. He has served on a number of task forces and committees, including the Red River Water Management Board, the Red River Basin Commission, the Flood Damage Reduction Work Group, the International Red River Board, and the statewide stakeholder Drainage Work Group, of which he's been a member since it started in 2006.

Since 2011, Dan has led efforts within the watershed district to support a major project to help stabilize and improve the Sand Hill River. A shining example of collaboration and partnerships, this project includes eight funding sources, and many more partners on the federal, state, and local levels. The district has coordinated conservation practices and other projects for erosion control, water quality improvements, fish passage, and more. The result will be a more fishable, swimmable river system, with cleaner water, more suitable fish habitat and connectivity, and the restoration of a small watershed's legacy in the Red River Valley.

Throughout his career, Dan has been an active and committed representative of watershed districts in the Red River Basin. He's advocated for better flood control, agricultural drainage, and water quality improvements. His outreach efforts extend to RiverWatch, which gets high school students active in water quality monitoring and water management education. He understands the value of communication and compromise, and that different perspectives get heard.

"Dan's leadership is evident in the work of Sand Hill Watershed District," BWSR Executive Director John Jaschke said. "He has demonstrated a longstanding commitment to the Red River Basin and the work he's done has impacts that extend throughout the state."



BWSR Executive Director John Jaschke (right), presents Sand Hill Watershed District Administrator Dan Wilkens (left) with the 2015 Outstanding Watershed District Employee of the Year award.

2015 Watershed District of the Year

Buffalo Red River Watershed District

At the Minnesota Association of Watershed Districts (MAWD) 2015 Annual Meeting and Trade Show held in Alexandria on December 3-5, 2015, the Board of Managers, Buffalo-Red River Watershed District (BRRWD) received two awards.



Watershed District of the Year was presented by the Minnesota Department of Natural Resources (DNR). Presenting the award was Luke Skinner, Director, Division of Ecological and Water Resources. The award was a 28" x 36" Les Kouba artist's proof framed print, titled "Evening Flight Mallards". He cited several reasons why the BRRWD was the recipient, including: the recent development of the Manston Slough Restoration Project, the BRRWD's involvement with the Red River Basin Flood Damage Reduction Work Group and the Mediation Project Team process, a willingness to work with agencies and landowners to develop natural resource enhancement (nre) and flood damage reduction (fdr) projects, and the recent restoration of the Buffalo River in Hawley Minnesota.

Bruce Albright, BRRWD Administrator, said, "This is the third time since the early 1980s that the BRRWD has been selected as the "Watershed District of the Year" by the Minnesota DNR. We want to thank all the other resource partners, including the Soil and Water Conservation Districts, for being able to work on meaningful fdr and nre projects."



DNR Watershed District of the Year, left to right: Gerald L. Van Amburg, Chairman, Brea L. Kobiela, Manager, Bruce E. Albright, Administrator, John E. Hanson, Secretary, Peter V. Fjestad, Vice Chairman, and Luke Skinner, Director, Ecological and Water Resources, DNR.

HISTORY

The BRRWD, formerly known as the South Buffalo Watershed District, was established on August 31, 1960, and was comprised of approximately 344 square miles in Clay, Otter Tail, and Wilkin Counties (primarily the South Branch of the Buffalo River). Following a severe summer flood in 1975, it became apparent that any rational approach to address flooding needed to include all of the area contributing runoff to the Buffalo River. By order dated September 17, 1976, the State of Minnesota expanded the BRRWD and changed the name to the BRRWD. The same order expanded the representation on the Board of Managers. The newly formed Board of Managers adopted their first Overall Plan on January 9, 1978, and submitted the plan to the State for approval. The State approved the Overall Plan on July 26, 1978. The most recent Watershed Management Plan (WMP) was prescribed (approved) by the State on June 23, 2010.

In 2011, Wilkin and Otter Tail Counties petitioned the State to expand the BRRWD instead of creating a new separate watershed district for the area that was located between the pre-expansion south border of the BRRWD and the Bois de Sioux Watershed District. By order of the Board of Water and Soil Resources on April 25, 2012, the State of Minnesota expanded the BRRWD to its current size. The same order expanded the representation on the Board of Managers to include an additional manager from Wilkin County and a manager from Otter Tail County.

2015 Project of the Year

Manston Slough Restoration Project - Buffalo Red River Watershed

Manston Slough was drained in the late 1800s with State Ditch 15. About 10 years ago, the BRRWD brought together a group of interested agencies to discuss a multi-use, comprehensive project that could achieve multiple goals. In 2014, the \$6 million dollar project was completed by the BRRWD. Project benefits include 5,446 acre-feet of temporary flood storage, restoration of a 1,150 acre wetland, 2,053 acres of Wetland Reserve Program buffers around the wetland, and ground water recharge for the Buffalo Aquifer. The Project area encompasses over 7,000 acres of public recreational opportunities. The impressive fact is the assembly of multiple stakeholders, including 33 private landowners, to make this project a reality.

What the Committee said: "An impressive 7,000 acre project."

"7,000 protected acres, including 1,150 acre wetland & 5,446 acres storage; project partners Federal (USFWS, NRCS), State (MN DNR, BWSR, LSOHC), and Local LGU (WD), 33 Private Landowners, and River Watch; Benefits include - Flooding, Water Rate control, Recreation, 1,280 acre wetlands, 2,500 acres of Wildlife Management Area grass-land, project included groundwater recharge, Outreach and overcame many obstacles"



MAWD Project of the Year, left to right: Peter V. Fjestad, Vice Chairman, Brea L. Kobiela, Manager, John E. Hanson, Secretary, Gerald L. Van Amburg, Chairman, Bruce E. Albright, Administrator, Mark T. Anderson, Treasurer, and Erik S. Jones, Project Engineer, Houston Engineering, Inc., and MAWD Awards Committee



Watershed News

Welcome!

New Administrators

Kanaranzi-Little Rock: **Sabrina Raddle**

Middle-Snake-Tamarac Rivers: **Brent Silvis**

Nine Mile Creek: **Randy Anhorn**

Bois de Souix: **Michelle Swenson**

Retirees

Connie Frahm - Kanaranzi - Little Rock

Louise Segreto - 9 Mile Creek

Dale Borash - Valley Branch

Gail Pundsack - Brown's Creek



In Memoriam

Geoff Nash - 9 Mile Creek

Al Dornfield - Valley Branch

Larry Kuseke - Sauk River

Duane Erickson - Cormorant Lakes



District Anniversaries



Cormorant Lakes & Pelican River

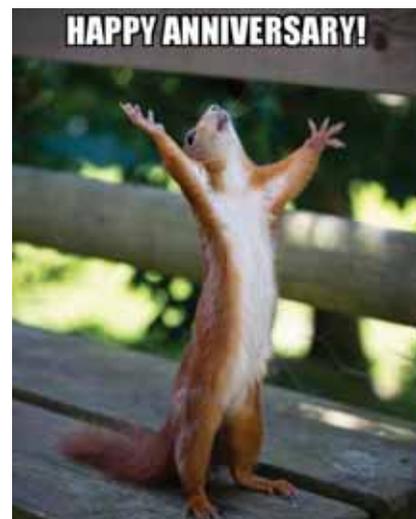
'With the economic health of the Detroit Lakes region so directly dependent upon the recreational value of its lakes, rivers and streams, it makes sense that when the Pelican River Watershed District was established in 1966, it was "the first watershed district in the state to be formed for water quality purposes, rather than quantity," says Tera Guetter, its current administrator.'

dl-online.com

By: Vicki Gerdes

35 years - Kanaranzi-Little Rock

30 years - Sauk River



**Minnesota Association of Watershed Districts
Statement of Revenue and Expenditures
November 1, 2015 to October 31, 2016**

The Treasurer's Report Actual
11/1/2015 to
10/31/2016

REVENUE	
Dues	103,834
Interest	241
Annual Meeting	44,120
Summer Tour	14,390
Drainage Seminar	14,280
Trade Show Fees	11,495
Legislative Breakfast	7,450
ADA Training	600
Managers Training/Basic Water Mgmt Fees	4,250
Communication/Public Education	3,000
Staff Development	-
Other	-
AIS Symposium	-
TOTAL REVENUE	<u>221,239</u>

EXPENDITURES	
General Administration & Lobbying	81,345
Program Manager	-
Website/Social Media/Internet Fees	10,000
AIS Symposium Fees	1,000
Round Table Administration	316
Lobbyist, Administrative Expenses	1,754
Supplies & Equipment	3,124
Dues	-
Telephone	220
Committee Meeting/Work Per Diem/Expense	25,297
Directors Meeting Expenses	1,471
Payroll Taxes	787
Legal Fees	-
Accounting and Audit Fees	3,550
Watershed District Handbook	-
Liability Insurance	1,551
Leadership & Development	7,250
Website/Social Media/Internet Fees	650
Credit Card & Bank Charges	2,791
ADA Seminar Expenses	400
Trade Show Expenses	9,569
Annual Meeting Expenses	36,678
Summer Tour Expenses	14,402
Legislative Breakfast Expenses	7,177
Communication/Public Education	-
Drainage Seminar Expenses	2,993
Managers Training Expenses	2,288
Aquatic Invasive Species Conference	153
Memorials	-
Salary Survey	-
TOTAL EXPENDITURES	<u>214,766</u>

REVENUE MORE (LESS) THAN EXPENDITURES **6,473**

BEGINNING NET ASSETS **119,415**
 Current year change in net assets 6,473
ENDING NET ASSETS **125,888**

ENDING BALANCE, CASH & CASH EQUIVALENTS **140,033**

Deposits received, 2017 annual meeting	(11,385)
Liabilities, accounts payable	(4,008)
Deferred costs paid, insurance for 2017	919
Deferred cost paid, annual meeting	<u>329</u>

ENDING NET ASSETS **\$125,888**



Dates to pencil in:

**MAWD Legislative Reception
and Day at the Capitol**

March 29-30, 2017

MAWD Summer Tour

June 21-23, 2017

**MAWD Annual Meeting &
Tradeshaw**

Nov 30-Dec 2, 2017





Carnelian-Marine-St. Croix Watershed District

Getting rid of a gully stops significant erosion into the St. Croix River *A watershed district team encountered everything from steep slopes to funding challenges while trying to fix a problem site in Scandia.*

Water will go downhill the fastest and easiest way possible. It will wear away stone and carry away soil, undercut trees and carve deep gullies, just to find its way to sea level. Given enough time, gravity and water can overcome almost any obstacle. It's a perfectly natural process, but when more water than normal is sent down a St. Croix Valley bluff, it can cut a path that threatens the health of the river below. By washing soil into the river, runoff muddies the water and fuels the growth of harmful algae.

As reported last month, Chisago County has stabilized several gullies along its river bluffs the past few years.

A little ways south, the local watershed district also recently restored a bluff on the border of Scandia and Marine on St. Croix, overcoming difficult conditions to fix a serious source of sediment in the St. Croix River.

The solution involved a massive plastic pipe, replanting the slope with native vegetation that would hold the soil in place, installing a rain garden to let runoff soak in before getting to the bluff, and removing some trees to let more light through to the ground.

That sounds relatively simple, but it was a big challenge.

Paying for the project presented the Carnelian-Marine-St. Croix Watershed District with its first hurdle. "As always, funding was a big issue," says district administrator Jim Shaver. "We included this project in several unsuccessful grant applications, looked to Scandia to share costs, but eventually felt that the issue was critical enough to fund on our own."

The watershed district receives tax dollars from residents, which it used to pay for the \$75,000 project. With the gully only getting bigger and badder every year, they couldn't wait for outside dollars.

The phosphorus the project is keeping out of the St. Croix is enough to fuel the growth of about six tons of algae.

While algae is also natural, it can cause big, toxic blooms when it gets too much phosphorus.

Altogether, the 197th St. gully repairs will keep 33 tons of sediment and 43 lbs of phosphorus out of the river each year.

That's a one-time cost of about \$1.13 per pound of soil kept on the bluff – and the benefit to the river is repeated each

year. When the district managers visited in mid-October, the hillside was still green with grass and dotted with wildflowers. Next year, the watershed district hopes to continue improving the site, working with the city of Scandia as other road work is done nearby. From the top, the slope looked almost vertical. Bare hills on the Wisconsin side were visible across the valley. The bluff looked like it would be there another thousand years.



BY GREG SEITZ | OCTOBER 31, 2016 | STCROIX360.COM

<http://www.cmsc wd.org/>

St. Croix River
ASSOCIATION

Working to protect, restore, and celebrate
the St. Croix River and its watershed.

www.stcroixriverassociation.org

2016 Highlights

bdswd.com

- Construction of the North Ottawa Impoundment project was completed earlier this year. The impoundment controls 75 square miles of the Rabbit River Watershed in Grant and Otter Tail Counties by storing the excess runoff on 1,920 acres of land. The impoundment provides approximately 4 inches of watershed runoff storage capacity. After spring runoff, the water is released as quickly as possible to restore about 80% the impoundment’s flood storage capacity. The remaining 20% is utilized for natural resource benefits. In addition to flood control, the impoundment is being used for multiple purposes including natural resource enhancement and water quality improvement. Both the Minnesota Department of Natural Resources (DNR) and the Red River Basin Commission (RRBC) have been utilizing portions of the impoundment to benefit migratory waterfowl and study nutrient reduction potential. In October of this year the DNR conducted an aerial waterfowl count and recorded almost 8,000 ducks and 1,000 geese at the impoundment site. To learn more about the North Ottawa Project, visit the BdSWD website.

- The Redpath Impoundment Project took a significant step forward this year. The vast majority of the lands necessary for the construction of the project have now been acquired by the Bois de Sioux Watershed District. The proposed impoundment site is located alongside a reach of the channelized Mustinka River (JD14) with the primary benefit being flood risk reduction. The flood control project will provide about 24,000 ac-ft of storage for the 212 square mile watershed. The project will also rehabilitate the Mustinka River through this reach and include water quality benefits and wildlife habitat enhancements.

- The District is will be moving forward with its first ditch retrofit for water quality improvement. Traverse County Ditch (TCD) #37 will be retrofitted to include best management practices to slow down sediment transport and improve erosion protection utilizing berms with side inlet pipes and proper culvert sizing. The TCD #37 project is scheduled to be bid this winter with construction taking place during the summer of 2017.

- The District was successful in obtaining a \$500,000 grant for watershed planning through the NRCS. Over the course of this three year study effort, the Bois de Sioux Direct watershed which includes the Doran Creek will be analyzed through a project team process tasked to provide flood damage reduction and water quality enhancement solutions to the watershed. Currently, the study group is identifying needs, establishing goals, and developing project alternatives. Ultimately, a single best alternative will be selected for implementation.

- The District has passed a resolution to move with One Watershed One Plan (1W1P). 1W1P will unify the District’s overall plan with six counties and six Soil and Water Conservation Districts that encompass the Bois de Sioux Watershed. The District will seek a planning grant from BWSR in 2017.



North Ottawa floor aerial '09



Migration of birds - North Ottawa



North Ottawa Weir



Marsh Lake Ecosystem Restoration Project

umrwd.org

Marsh Lake is on the Minnesota River between Swift and Lac qui Parle Counties near Appleton, Minnesota. The Marsh Lake Dam is owned and maintained by the U.S. Army Corps of Engineers as part of the Lac qui Parle Flood Risk Management project. The fixed-crest dam holds a conservation pool in the upper portion of the Lac qui Parle Reservoir. The Works Progress Administration constructed the dam and rerouted the Pomme de Terre River into the reservoir between 1936 and 1939. The Corps modified the dam between 1941 and 1951 as part of the Lac qui Parle Flood Risk Management project. During floods, the Marsh Lake Dam is inundated by the Lac qui Parle pool and serves no significant flood risk management purpose.

Marsh Lake lies within the Lac qui Parle Wildlife Management area, which is managed by the Minnesota Department of Natural Resources. In the fall, as many as 150,000 Canada geese use the management area at one time. Marsh Lake is also home to Minnesota's largest breeding colony of American white pelicans and several species of fish.

The recommended plan features include:

- Restoring the Pomme de Terre River to its natural channel,
- Modifying the dam with a fishway for fish passage,
- Constructing a drawdown water control structure,
- Restoring connectivity to an abandoned fish rearing pond adjacent to the dam, and
- Constructing recreational features.

In combination, each of these features would contribute toward restoring river habitat, eliminating winter oxygen refuge for carp, and providing for ecosystem connectivity. The natural flooding and drying cycles could be restored, promoting growth of emergent vegetation, increasing waterfowl habitat, and reducing sediment re-suspension. Restoration would benefit thousands of migratory waterfowl and many other species of birds and fish.

Status

The Chief of Engineers Report was signed in FY12. The design agreement was executed with the Upper Minnesota River Watershed District (UMRWD), in FY14. The design was completed in FY16, and a Construction Project Partnership Agreement was executed with the UMRWD in June 2016. The initial construction contract was awarded in September 2016 and construction will start in FY17.

Authority

The study was authorized by a resolution of the Committee on Public Works of the U.S. House of Representatives May 10, 1962. This project was specifically authorized in Water Resources Reform and Development Act of 2014.

Fiscal

Planning, Engineering and Design Cost (Cost shared 65-35)

\$1.32 million

Construction Cost (Cost shared 65-35)

Federal \$7.55 million

Non-Federal \$4.06 million

Total estimated construction cost \$11.61 million

Estimated total project cost \$12.93 million

Through FY16, all Federal funds have been appropriated

*The ground breaking for the project projected for November 21st 2016 at 11 a.m. at the project site Southeast of Appleton.





Brown's Creek Watershed District

Preserving the integrity of the watershed for future generations

Washington County project will cool Brown's Creek water for trout

An unusual underground cooling project aims to restore Brown's Creek in Washington County.

An underground chamber of cold rock, engineered to lower the water temperature in a Washington County trout stream, has become the latest defense against contaminated tributaries feeding the lower St. Croix River.

"We're trying to mimic nature and we're not super good at it as humans," said Karen Kill, administrator of the Brown's Creek Watershed District, speaking of how the "rock crib" maintains a constant temperature year around.

"What we're trying to do is create a habitat where the cold water species that we would expect to find here will live and thrive."



Engineer Derek Lash, left, and Karen Kill of the Brown's Creek Watershed District, inspected a kiosk along the Brown's Creek State Trail in Stillwater

Brown's Creek, which has a state trail by the same name winding alongside it for half of its

8.2-mile length, has a reputation as an impaired waterway. Brown trout struggle in its warmer waters, and too much sand, gravel and other sediments are swept into it by stormwater. Phosphorus contamination that causes algae blooms in the St. Croix remains high in the creek.

On average, Brown's Creek pours 4.9 million gallons of water into the river daily, the equivalent of about 7½ Olympic swimming pools. Conservation work on Brown's Creek, Valley Creek and other streams will reduce impairment of Lake St. Croix, the widest portion of the river from Stillwater south to where the St. Croix empties into the Mississippi River at Prescott, Wis.

It was near Brown's Creek Park in northwest Stillwater, where a downward-sloping Neal Avenue crosses the creek, that a serious threat to water quality persisted for years. Stormwater rushed across a gravel parking lot, spilling sediment and warm water into the creek.

To resolve that problem, the watershed district hired an engineering firm to oversee construction of a grassy drainage area, called a bioswale, to filter sediment from stormwater, and a new parking lot designed to channel water to the bioswale.

And then there's the 4-foot-deep rock crib, which drains water through perforated pipes onto buried rocks where it will cool by 10 degrees — to a desired 65 degrees Fahrenheit — before being released into Brown's Creek.

Derek Lash, the environmental engineer directing the project, said rock cribs remain relatively rare, although builders are beginning to use them more in private residential developments. Avoiding any further disturbance to Brown's Creek was a challenge when building the rock crib, he said.

"I'm ready to see it in use," Lash said.

(continued Washington County project will cool Brown's Creek water for trout)

Steps toward conservation

The rock crib project is the third major water quality effort on Brown's Creek in the past year. Last week, Washington County commissioners voted to buy 13 acres of land near the creek's headwaters in the rural city of Grant with voter-approved state Land and Water Legacy funds. The watershed district will pay half of the \$254,400 cost.

In another location a year ago, Washington County and Stillwater agreed to create public parking and protect a stretch of Brown's Creek and its wetlands on the southeast corner of Hwy. 96 and Manning Avenue.

Conservation agreements will protect both parcels of land against development.

Other watershed districts have taken similar action in recent years to improve water quality and help Lake St. Croix recover from its own impairment, which was serious enough to land that stretch of the river on the Minnesota Pollution Control Agency's list of impaired waters in 2007.

In south Washington County on Valley Creek, for example, managers took steps to control stormwater runoff and limit erosion. In a northern stretch of the county, the Carnelian-Marine on St. Croix Watershed District repaired a deep ravine where tons of soil had eroded into the St. Croix.

On Brown's Creek, the rock crib project will help make the difference — at least downstream of the project — between a warm muddy trout stream and a clear cold one. The watershed district received a \$204,000 grant for construction, Kill said, and Stillwater will pay for the new parking lot and new curbs and gutters to channel even more stormwater into the filtration.

The watershed district continues to invest in smaller improvements that someday will combine for a larger restoration of a creek, which is highly regarded for its beauty and recreational uses.

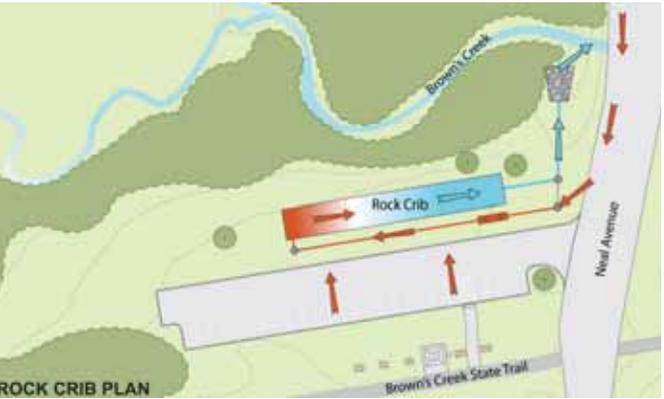
To make sure progress is being made, the district monitors the creek at several places. Kill said the news gets better all the time. "We're starting to see some positive signs. There's great hope," she said.

By [Kevin Giles](#) Star Tribune | NOVEMBER 3, 2016

Project Participants:



bcwd.org



ROCK CRIB PLAN

The trout and other creatures that live in Brown's Creek depend on cold water in the creek to survive. The stream temperature needs to be below 65° F all year round. During the summer, hot pavement heats up rainwater during storms. When this warm water runs off into Brown's Creek, it heats up the creek water and that hurts and sometimes even kills the fish and insects in the stream.

Brown's Creek Watershed District and the City of Stillwater are partnering on an innovative project to keep Brown's Creek cool. We're building an underground rock crib to reduce the temperature of rainwater flowing from Neal Avenue and the parking lot into Brown's Creek. The rock crib will cool the rainwater by more than 10° F, which will keep Brown's Creek cold enough for trout and other desirable creatures to thrive.



Central High School Beautifies its Campus While Protecting the Mississippi River

September 6, 2016 will go down in Minnesota's history as Saint Paul Central Day. Capitol Region Watershed District (CRWD) staff and members of the board had the pleasure of participating in Central High School's 150th anniversary celebration with special guests including Lieutenant Governor Smith, Mayor Coleman, Councilmembers Tolbert and Thao, Melvin Carter III, Principal Mackbee and Interim Superintendent Thein as well as many teachers, students and alumni.

The vision to improve Central's campus began taking shape in the fall of 2011 through a dedicated group of parents, students and community members, known as the Transforming Central committee. In 2012, CRWD was invited to develop conceptual designs to collect and filter rainwater on site while also improving aesthetics. Today, the original design has grown to include four kinds of clean water practices including rain gardens, tree trenches, an underground filtration system and porous pavers near the front plaza. The goal of building these projects is to collect and clean rainwater from the plaza and portions of the school's roof and parking lot instead of allowing it to flow into storm drains and the Mississippi River. Together, these features will filter 1.4 million gallons of polluted rainwater each year.



As part of the project, CRWD staff worked closely with teachers to identify opportunities for student learning. A summary sheet was created with project details to use in coordination with existing curriculum. Project signage, water monitoring equipment and an outdoor classroom were also added to campus as part of the larger Transforming Central vision.

Saint Paul Public Schools (SPPS) and the Transforming Central committee were excellent project partners. They provided oversight, design feedback and fundraising. SPPS is also responsible for the operations and maintenance of the project. CRWD provided technical support and financial resources in the amount of \$253,250. The Board of Water and Soil Resources awarded a grant in the amount of \$175,000 through the Clean Water, Land and Legacy Amendment. For more information, please visit <http://central.spps.org/transformingcentral>

capitolregionwd.org





Targeted Fertilizer Application Reduction Project

Agricultural runoff is a significant source of polluting nutrients to waters of the CRWD. This project seeks to lessen this source of pollution by assisting farmers with changing the fertilizer application rates for their fields.

Many farmers apply fertilizers to their fields at standard rates, even though field fertilizer requirements vary significantly. By testing the soil throughout a given field to determine fertilizer requirements, the farmer can apply the fertilizer at variable rates throughout a field. This optimization of fertilizer application results in improved yields and operational cost controls for the farmer, and lowers the potential for nutrient runoff from fields to District waters. This practice is known as precision soil testing and GPS-aided fertilizer application.

After a successful pilot phase (known as the Fertilizer Field Trial), this project received a grant in the amount of \$300,000 from the Minnesota Pollution Control Agency through a grant from the United States Environmental Protection Agency, Section 319 Non-point Source Management Fund for the enrollment of 16,000 acres into this systematic soil testing program. The project was completed early fall 2016.

Results of Project

1. Assisted in developing a market for Precision Soil Nutrient Testing and GPS-Aided fertilizer application

Pre-project, use of this management practice was limited due to a lack of proven market for the service. This project provided local farmer cooperatives with a stable market base to invest in and ramp-up efforts to offer this service/ practice to area farmers.

2. Demonstrate value of practice to farmers' operations

Surveys taken of enrolled farmers at project end indicated that producers realized the expected value of the practice and plan to continue its use as part of their operations.

3. Higher than typical uptake of incentivized agricultural BMP at low administrative cost

This program was unique in that it leveraged existing relationships between the local farmer cooperatives and farmers to promote the project, which reduced administrative burden and resulted in 61% uptake of the practice in fields within the targeted area, representing 17,728 unique acres and 23,310 total acres of corn and soy).

4. Impacts beyond the service area

The local farmer cooperatives that partnered in the program continue to offer the practice as a service within their entire service areas. The District has also shared the results of the project at several events and with multiple entities in order to promote the practice as a water quality improvement method that meshes well with modern agriculture.

5. Contributes to Phosphorus Reduction Goals Downstream

Within the targeted area, sensitive areas (i.e. areas adjacent to water bodies) with high soil phosphorus concentrations saw major reductions in recommended fertilizer application relative to typical recommended application rates. Comparing the standard application rates in sensitive areas to the application rates based on gridded soil testing, there was a reduction in phosphorus application (not DAP, but phosphorus) annually of between 900 and 7,600 lbs. Direct reductions cannot be measured, but downstream water quality showed an improvement over the project lifecycle. This wasn't the only project at the time, so 100% of the improvements cannot be attributed to this program. In terms of targeted load reductions, this program may provide 10-30% of the the 4,100 lb. reduction to Lake Betsy from its contributing watershed, assuming only a small percentage of the not-applied phosphorus would have migrated downstream.

To learn more about the program, including review of the final project report, visit: http://crwd.org/tmdl_targetedfertilizer.html

crwd.org



WATERSHED
ASSISTANCE
THROUGH
EDUCATION &
RESOURCES

Heron Lake Sediment and Phosphorus Reduction Implementation Projects BMP Site-Seeing Event

In 2013, the Heron Lake Watershed District (HLWD) received funding from the Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources to install practices in Nobles, Jackson, and Murray Counties. Over the last three years, five projects were implemented.

They included construction of a bioretention basin, multiple terrace projects, a bio retention basin, and a streambank stabilization. The purpose of these projects was to reduce sediment and nutrient loads into streams and lakes within the HLWD. All the projects combined affected more than 300 acres and have an estimated reduction rate of 500 pounds of phosphorus and 550 pounds of Total Suspended Solids (TSS) per year. The total grant award was for \$122,000. This covered 75 percent of the project costs, provided funding to continue water sampling at three watershed sites to monitor grant progress, and financed newsletter expenses to promote an education event.



The BMP Site-Seeing Event was held on April 21, 2016. Participants met in Brewster, Minnesota. Catherine Wegehaupt, HLWD Watershed Technician presented information about the grant, all the projects that were installed, the total cost of the projects, and the nutrient reduction achieved from installation. She explained the water sampling data that was contained in the brochure distributed to attendees. She explained the trends that were seen in the sampling data during the grant period. In attendance were eleven members of the general public, one Board of Water and Soil Resources staff, two news reporters, two HLWD board members, and three HLWD employees.

The first stop was the Okabena Creek Streambank Stabilization site in Section 30 of Alba Township in Jackson County. Information about why this site was chosen, surveying, designing, project installation, and cost was shared with the audience. Also provided were facts about how the project works, how the J-hook weirs were installed, and nutrient reductions attained. Questions and discussion followed.

The second stop was the Graham Lakes Bioretention Basin site in Section 17 of Graham Lakes Township in Murray County. Southwest Prairie Technical Service Area completed the engineering for the project. The project designs were shared with the group. Other data presented included: clean out process, structure installation, watershed size, final cost, and nutrient reductions. Okabena Creek Streambank Stabilization Project Graham Lakes Bioretention Basin.

The last stop was the Fulda Lakes Bioretention Basin. Ninety-five acres of farm ground drain through this area which outlet directly to Fulda Lake. Photos from before the project was installed were shown. Catherine Wegehaupt explained how the structure works, the reason for the project, and the many partners that contributed time and money to complete the project. Final cost and sediment reduction amounts were also shared with the group.

The tour ended with a question and answer period about the projects and the grant itself.



hlwdonline.org



Roseau River Watershed District and MN DNR partner on flood damage reduction project

The Roseau River Watershed District (RRWD) and Minnesota Department of Natural Resources (DNR) are partnering on a flood damage reduction project that will also enhance wildlife habitat over thousands of acres of public land on the Roseau River Wildlife Management Area in Roseau County.

Construction started in June to address discharge of water from the pools that too often coincides with peak flows of a given flood on the western portion of the Roseau River watershed. This discharge may result in damage to infrastructure and compromises various land uses such as agriculture near the river. It also contributes to transfer of flood waters from the Roseau River to the Two Rivers watershed in the area locally known as the Juneberry area (the “Big Swamp”), northwest of Greenbush.

The project includes installation of two new water control structures – one on Pool 2 and one on Pool 3, enhancement of an existing water conveyance channel on the west end of Pool 3, and development of a 1.9-mile-long outlet channel from the west end of Pool 3 to the Roseau River.

Unlike other areas of the state, the Roseau River WMA has relatively intact habitat that, on a landscape scale, will produce an abundance and diversity of wildlife when flooding is moderated through management.

The partnership

Developing the partnership was critical to the success of this project. The DNR contributed the land on the Roseau River WMA, and took the lead on environmental review and permitting for the project. WMA staff will operate the structures.

The RRWD applied for and administers the flood damage reduction grant, provided technical expertise in wetland delineation, project mitigation for wetland impacts and engineering throughout the project’s development. The RRWD also organized formal public hearings for the project as well as informal informational meeting.

Win-Win situation

Talk of the project was initiated in the early 2000s. The project team reconvened in 2009 when the Roseau River Watershed District and the DNR determined that there was enough common ground and interest to restart project discussions.

“The Roseau River WMA project is now in the construction phase after a successful second attempt to develop a flood reduction project and natural resources enhancement project,” said LeRoy Carriere, long-time watershed district board member.

The project followed the Red River mediation agreement project team process whereby agency and local concerns are addressed through the use of a consensus-based process to reach agreements for the solutions that meet the defined goals of the project. It will operate according to an operations plan agreed to by the project work team, which consisted of agency representatives, landowners and local government members.

“Using the project team process to move this project forward was important to reaching our goal of a final, constructed project,” said RRWD Board Chair Tony Wensloff. “Because all interested parties were at the table from the start, we were able to keep moving forward in the right direction.”

The project will reduce the peak flow on the Roseau River. Peak discharge from the pools to the river will now occur ahead of the peak flow period on the river. Water level fluctuations within the pools will be reduced and flooding will be moderated

along the river in the Big Swamp. These changes will enhance the quality of existing wildlife habitat, combat invasive species competition with native vegetation, and improve wildlife production.

“The operating plan does not change the existing management strategy for wildlife habitat on Roseau River WMA,” Prachar said. “It simply allows a better chance for those strategies to succeed.”

For more information on the state’s WMAs, visit dnr.state.mn.us/wmas.

roseauriverwd.com



Shell Rock River Watershed District Board Chairman, Dan DeBoer signing off on paperwork.

Watershed board chairman: 'It's time to dredge the lake'

By Sarah Stultz | Albert Lea Tribune | October 10, 2016

Shell Rock River Watershed District leaders had what they described as a historic meeting last week as they indicated to state agencies that they are ready to proceed with the dredging of Fountain Lake.

The meeting came as the Watershed District's Board of Managers sent a response to the Minnesota Department of Natural Resources and Minnesota Pollution Control Agency regarding feedback the agencies had about the project through an environmental assessment worksheet. The district's response states further environmental review through a formal process is not necessary.

The state agencies will next decide whether to move forward with the project permits. District Administrator Brett Behnke said the board completed a "comprehensive, thoughtful and professional response" to all issues with the project.

One of the key issues was regarding the confined disposal facility that will be used to manage sediment removed from the lake. A CDF is a dewatering site in the dredging process. When dredging takes place, a mixture of water and sediment will be pumped to the disposal facility, and the CDF will settle and siphon off the water. An embankment will go around the perimeter of the CDF.

Director of Field Operations Andy Henschel said four cells will be needed to put the 1.7 million cubic yards of sediment removed from the lake, but presently three cells have been designed and are ready to be built to hold an estimated 1.2 million cubic yards. District officials think the state should sign off on the start of the first three cells so the project doesn't get held up while plans for the fourth cell are completed.

"The Fountain Lake restoration and dredging project is literally as shovel-ready as you can get — we can start within one week's notice," Henschel said. "The MPCA and the DNR now hold the permit keys to whether this project will proceed or whether it will face an unfortunate delay." The total project is expected to cost a maximum of \$15 million and will be paid for with \$7.5 million in state funding and other money raised from a half-percent sales tax.

Plans call for the dredging to begin in Edgewater Bay and move east over a few phases. "The district is honored to present the Fountain Lake Restoration Project on behalf of the community," said Dan DeBoer, board chairman, after signing the final determination. "It is time to dredge Fountain Lake."

The Shell Rock River Watershed District initiated agency outreach meetings in fall 2013 to allow agency representatives the opportunity to be prepared for permitting applications for the dredging project. Since that time, the district has worked in close cooperation with all of its agency partners.

On Aug. 1, the Shell Rock River Watershed District submitted an environmental assessment worksheet to the Environmental Equality board. The worksheet explores all the efforts taken by the district leading up to this point, as well as efforts taking to protect the environment during the dredging process. The worksheet became available for agency comment on Aug. 8 and remained open until Sept. 7.

On Sept. 7, the Minnesota Department of Natural Resources and the Minnesota Pollution Control Agency provided their comments on the environmental assessment worksheet process. The agencies had 30 days to respond to the Watershed District's response. District officials said they feel optimistic that all of the concerns were addressed.

"The district is definitely ready to dredge Fountain Lake and keep making progress," said Mariah Lynne, consultant for the district. "But right now it's the permitting agencies that need to give us the OK to proceed" "We believe that having the community involved in moving the efforts forward by showing support for clean water would really help get this project on the ground.

shellrock.org

**Work continues on the VBWD 2013 CWF Grant
for Ravine Stabilization Project**



The VBWD received funds from the 2013 Clean Water Assistant Grant (Clean Water Fund (CWF)) to complete the Valley Creek Infiltration and Ravine Stabilization projects. The grant funds, in combination with local match funds from the VBWD, have been used to implement two different ravine stabilization projects in the Valley Creek watershed that were originally identified as part of the VBWD Valley Creek erosion inventory study. The first project included ravine stabilization measures in Ravine 2 west to Valley Creek. The second project included addressing erosion issues near the head of a ravine near the intersection of 30th Street and Trading Post Trail. The goals of these projects are to minimize sediment erosion in the ravine adjacent to Valley Creek, protect trout stream habitat in Valley Creek, and reduce the sediment and phosphorus loads to Lake St. Croix. These projects were constructed in 2015.

Additionally, the VBWD requested a one year CWF grant extension after being approached by the landowner immediately downstream of the ravine stabilization project completed in Ravine 2 in late 2015. The landowner was interested in working with the VBWD to implement ravine stabilization measures on their property. Since there were sufficient grant funds remaining, ravine stabilization measures will be implemented in this portion of Ravine 2 as well. The VBWD is in the process of acquiring easements and completing the necessary engineering, design, and permitting. Construction will happen in the summer 2016 and all work will be complete by 12/31/2016.

The following table summarizes the CWF amount, the VBWD local match funds, and the total project budget:

Funds	Budgeted Amount	% of Budget Spent (as of February 2016)
Clean Water Grant	\$453,300	58%
VBWD Match Funds	\$115,000	100%
Total Project Budget	\$568,300	66%

Stabilization at 30th and Trading Post Trail

Before

After





About Klondike Clean Water Retention Project #11

Description/Location: The 7,600 acre project is located 10 miles east of the City of Lake Bronson, MN and 4 miles north, covering nearly 12 square miles on the Kittson and Roseau County line. It is planned to have gated storage of 35,000 acre feet from a 143 mile upstream drainage area, including a 5 mile diked inlet channel, 7 miles of diversion channels, a 17 mile long dike, and an average dike height of 7 feet.

Project Benefits: Flood Damage Reduction (Primary Objective): Store 35,000 acre feet of floodwater and reduce downstream duration of flooding and peak flows; Provide an adequate outlet for Lateral 1 of State Ditch #95; Reduce Two Rivers contribution to the Red River flood by 20%.

- **Water Quality:** Large algal blooms currently occur on downstream Lake Bronson. This project will be designed to reduce phosphorous and nitrogen loading to the South Branch Two Rivers, thereby reducing the occurrence of algal blooms in the lake. In addition sediment loading to the lake will also be reduced.

- **Stream Flow Augmentation:** The South, Middle, and North Branches of the Two Rivers typically experience late summer and fall extreme low flows, and sometimes they even go dry. This has a detrimental stressor effect on the fish and other organisms. This project could be implemented to provide a source of stream flow during the times of low flow.

- **Habitat Enhancement:** The project area encompasses over 7,600 acres, most of which used to be farmland. Normal operation of the impoundment will be to flood the area during spring snowmelt and summer rains and slowly drain it down after flood peaks have passed. This will provide a large habitat block to enhance nesting areas and habitat for waterfowl. The site is adjacent to a 'rich fen', and therefore cessation of farming practices will help to protect the integrity of the nearby fen. A 'moist soils management' unit is being design in cooperation with MN DNR as an additional natural resource enhancement.



Problem Description: Flooding: Local – Flood flows originating in the Roseau River cross over into the Two Rivers Watershed, causing severe flooding. In addition, Lat 1SD95 has limited channel capacity and experiences break out flows that leave the ditch and flood overland, causing road and infrastructure damage, erosion and sedimentation, and extended duration of overland flooding. Downstream flood flows have threatened the dam and campgrounds at Lake Bronson State Park, and flood damages occur at the City of Hallock.

- **Regional – Red River of the North flooding** is a known problem, and this project will help to accomplish the regional goal of reducing flood flows by 20%. Other: Protect and enhance rich fen/prairie; provide habitat block for wildlife & ecosystem; reduce sediment and nutrient loads to Two Rivers.

Summer Education Series

Engaged and active citizens are critical to protecting our local water resources. The Nine Mile Creek Watershed District's Summer Education Series aims to get residents outside and connected to District resources. The program also teaches the importance of protecting the water and natural resources in participants' local communities. In 2016, the Nine Mile Creek Watershed District Summer Education Series (SES) had five programs with over 150 people attending. The programs helped people learn to kayak, identify common weeds, and other fun skills.

Since its inception in 2009, the District's SES has reached over 1,000 people. We teach participants about the natural resources where the programs are hosted, and teach them new knowledge and skills that allow them to continue to get out and engage with the natural resources. We also connect them with other District programs to deepen the engagement and move participants to steward-

ship behavior such as cleaning storm drains or applying for cost share grants to install a raingarden.



Each summer we offer three to five education programs from May to October, usually about one a month. Typically, the programs are one to two hours in length, in the evening or on the weekend, and are hosted at different water resources or parks throughout the District. Some of the programs are targeted just at adults, but most are family friendly. Programs have included Intro to Kayaking, Nature Photography, Native Seed Collecting, Family Fishing, and Landscaping for Water Quality, to name a few.

Through the years, the District has partnered with numerous organizations to make the Summer Education Series a success. The District's six cities are important program sponsors. The cities not only provide program support and recruitment, but have also taught Summer Education Series classes like the Native Seed Collecting program. The cities, in turn, can use the Summer Education Series to meet MS4 requirements. We have also partnered with organizations like the Three Rivers Park District, REI, and MinnAqua. Organizations such as these have expertise in teaching programs and can provide equipment like fishing poles and kayaks for classes. Part-

nerships increase the success of the Summer Education Series in both providing reliable experts to teach classes and in helping to attract a wider audience. The SES was recognized by the Minnesota Association of Watershed Districts as a finalist for Program of the Year in 2016.

"I found a woodpecker!" "We are definitely coming back." -Discovery Point visitors, after using the Bird bag.



Bald Eagle Lake Meets State Standards

The Rice Creek Watershed District (RCWD) completed the second and final aluminum sulfate (alum) treatment on Bald Eagle Lake in May 2016. The alum treatment will reduce phosphorus levels in the lake. Phosphorous fuels algae growth giving many Minnesota lakes a green, soupy appearance during warmer months. Once applied to a lake, alum binds with phosphorous, making it unavailable for algae to consume. Less algae means clearer water.

Regular water quality testing has occurred on Bald Eagle since 1980. In 2002, the lake was placed on the State's Impaired Waters List for excess phosphorous and algae. Severe algae blooms were common. In 2014, the RCWD worked with HAB Aquatic Solutions to apply the first alum treatment to Bald Eagle Lake. The project resulted in immediate gains in water clarity. Residents have reported seeing the bottom of the lake from the end of their docks for the first time in decades. Following the first alum treatment, Bald Eagle Lake has met state standards for phosphorous and algae for first time since 1980. The second treatment was completed to ensure the long-term effectiveness of the project.



The Bald Eagle Area Association (BEAA) has been an integral part of this success story. The group established a water management district to help pay for projects like the alum treatment. The RCWD secured a Clean Water Partnership



Loan for half of the total project cost at \$890,000. The BEAA will repay the loan and the RCWD is paying for the other half of the project.

The RCWD will continue to work with Ramsey County to monitor water quality in Bald Eagle Lake, with the goal consistently meeting state standards, and having the lake removed from the Impaired Waters list. The District's work with residents remains critical to achieving this important goal because the alum treatment only addresses phosphorous inside of the lake today. Good housekeeping measures such as keeping leaves and grass clippings, grease and oil, and fertilizers out of the lake will ensure long-lasting benefits from the alum treatment.



Bringing clarity back to Detroit Lake

Looking out from any of the many lakeside restaurants in Detroit Lakes during the summer months reveals hundreds of people enjoying lake life, the beautiful mile-long city beach, dozens of boats cruising up and down the shorelines, and fishing in the city's namesake waterbody – Detroit Lake. The value of this and several connected bodies of water is unquestionable, as the town swells from a base population of 8899 to welcome some 650,000 visitors each year, racking up \$72 million in tourism sales annually according to Explore Minnesota (2013). Add this to the property values of summer cabins, seasonal homes, and residential lake homes, and the economic impact becomes even clearer. And when it comes to water – clarity is the name of the game.



A study conducted on the upper Pelican River watershed determined that even a one foot decline in water clarity would result in an average \$11,500 loss in property value per parcel on the lake. With 390 parcels, that's a whopping \$4.5 million economic impact on real estate values alone. Given this, it's likely no surprise that in the early 1990s there was significant concern when residents and visitors started noticing a marked decline in water quality in Big and Little Detroit Lakes. Algal blooms increased, water clarity declined, and nuisance vegetation began to impact recreation and aesthetics.

The Watershed District

The Pelican River Watershed District was formed in 1966 to take on water quality issues. In 1995 when concerns were raised about the water quality decline of Big and Little Detroit Lakes, the District took action. It started with a sequential water quality monitoring program to identify problem sources and gain the scientific background needed to correct the problems. Projects like the installation of city sewer around the lakes to minimize septic failures, upstream stormwater detention basins within the city to collect urban runoff, and the implementation of the Watershed District's Water Management Rules in 1997 requiring stormwater mitigation practices for residential and commercial development were put into place. Much progress was made toward reversing the trends, but Big Detroit Lake in particular wasn't showing the water quality improvement everyone had hoped for.

Rice Lake

Upstream from the city of Detroit Lakes is a large wetland complex named Rice Lake. Partially drained over a century ago, Rice Lake now occupies a total area of about 1000 acres split between a small open-water portion and a larger wetland portion filled with a floating cattail bog. Through diagnostic studies, the District determined that during heavy rainfall events the cattail beds rise, providing access to nutrients usually trapped in the root systems. Those nutrients flush out of the wetland and into downstream Detroit Lake, negatively impacting water clarity and raising residents' concerns. To prevent the "flushing" phenomena, a higher level of water needed to be maintained on the wetland, similar to the conditions that likely existed before the wetland was hydraulically altered in 1915.

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT 2016 SPOTLIGHT PROJECTS



2016 projects included invasive plant management, water quality improvement, and creek restoration.

ALUM TREATMENT SHOWS RESULTS IN RILEY

In May, Lake Riley was treated with a compound called aluminum sulfate (alum). Alum binds with phosphorus, preventing algae from using it to grow. Sampling over the summer detected improvements in water quality. Continued monitoring will track long-term



PURGATORY CREEK REACH RESTORED

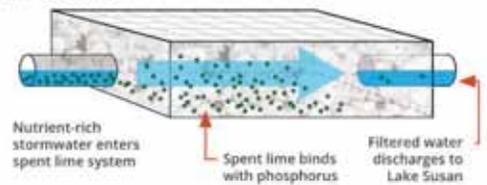
In partnership with the City of Minnetonka, the district stabilize eroding banks along close to 2000 ft of Purgatory Creek. The goal of the restoration is to improve water and habitat quality, and overall creek health. It is the first creek restoration in district history, and we are excited by its success.



SPENT LIME FILTER COMPLETED AT LAKE SUSAN

A spent-lime filtration system was built at a culvert where stormwater flows into Lake Susan. The purpose is to filter out phosphorus, a nutrient that can cause algae blooms and poor water quality. The system is designed to remove about 45 lbs. of phosphorus annually from stormwater entering the lake. That's about 22,500 pounds of algae!

How it works



What it looks like



CRAFTING A NEW 10-YEAR MANAGEMENT PLAN

The 10-Year Management Plan is a document that guides district actions over a decade. The district began the process of updating its plan in 2016. It will continue in 2017, with the hope of completing it by the end of the year. The plan includes goals for local water resources and strategies to attain them. Stay updated by joining our email list and visiting our website: rpbcwd.org

rpbcwd.org



Coon Creek Watershed District

Several large projects were successfully completed in 2015: our WRAPS report was completed, our TMDL approved, and the Oak Glen Creek bank stabilization construction was completed. This project is adjacent to the Mississippi River, just upstream of the drinking water intakes for both Minneapolis & St. Paul. We also saw a marked increase in demand for services. This, coupled with the increase in mandates and prescribed methodologies, resulted in the budgeting for two new staff: an assistant for the Regulatory program since permit applications increased throughout the year with no winter lull, and an Operations and Maintenance assistant to help with ditch inspections and an increase in reported Issues. Also, trainings were developed and given for local builders and developers regarding our permitting program updates including related city programs presented by city staff. This training will continue biannually, alternating with trainings for engineers in interim years.



BEFORE



AFTER

Oak Glen Creek Stabilization Project

cooncreekwd.org



Middle-Snake-Tamarac Rivers Watershed District

The Middle-Snake-Tamarac Rivers Watershed District has partnered with the Agassiz Audubon Society (AAS) to develop a 40-acre property, formerly owned by Eldor and Stella Omdahl, and recently received by the District. This year, under the direction of Heidi Hughes and Sheila Hoerner of the AAS, a 2-acre demonstration pollinator garden was established on the property. This garden, planted with native tallgrass prairie and aspen parkland plants, many of which were grown in the greenhouse of the University of Minnesota-Crookston's Agriculture and Natural Resources Department, will attract and sustain birds, butterflies and bees.

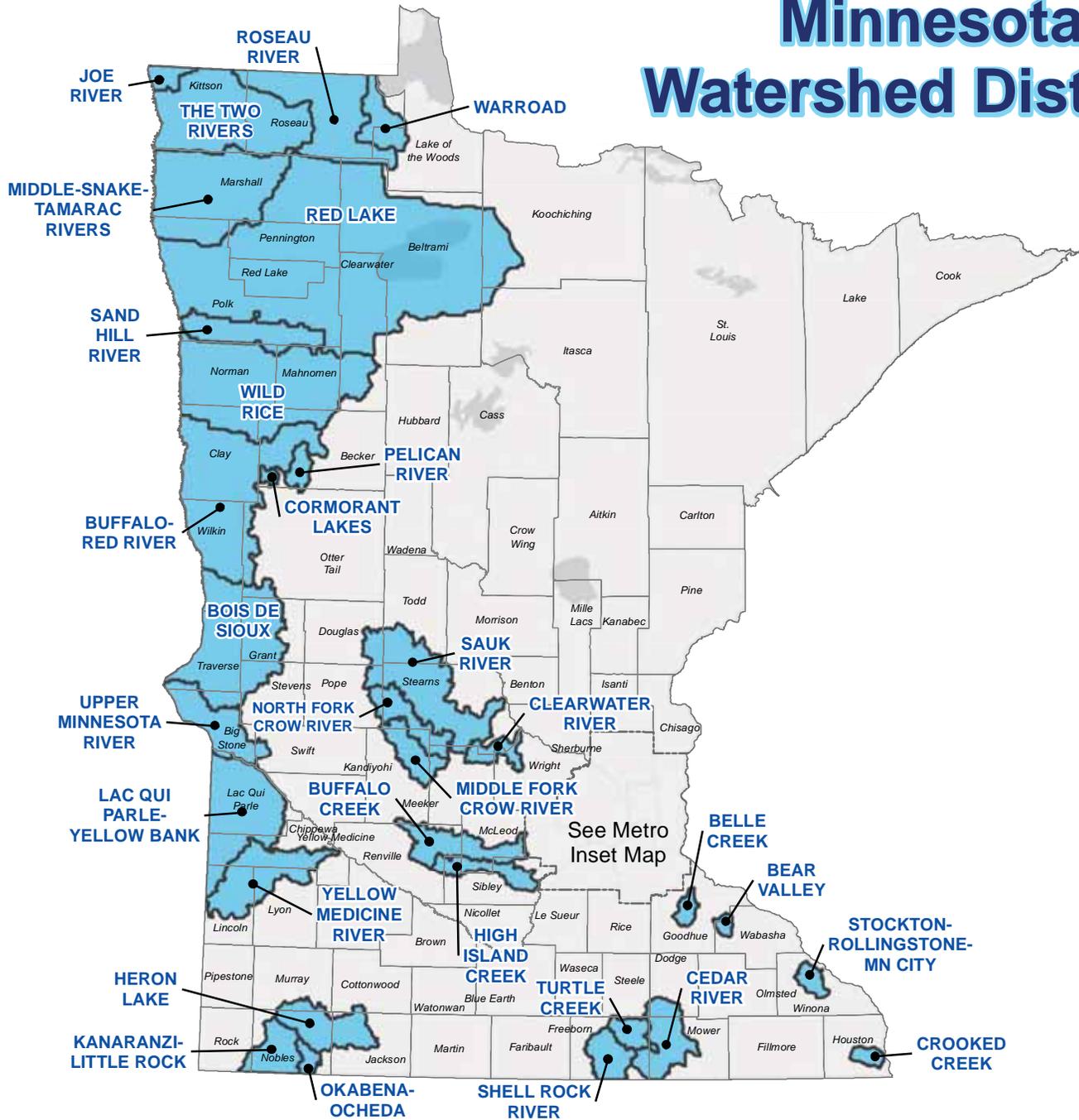
Complementing the garden project will be the installation of a kiosk with interpretive and educational signage at the site, along with four similar kiosks which will be installed around the District. The kiosks feature swift chimneys, which provide nesting habitat for chimney swifts. AAS developed these projects with assistance from the Garden Corner in Warren, MN, Boy Scouts Troop 50, students at the Warren-Alvarado-Oslo Schools led by industrial technology teacher Nathan Wozniak and other volunteers, funding from AAS, the Partners for Fish & Wildlife Program (US Fish & Wildlife Service), the Minnesota Department of Agriculture, the Northwest Minnesota Foundation and Pheasants Forever and donations in memory of Sarah F. Gunderson of Thompson, ND, Tom Valega of Linden, NJ and Christine Boman of Warren, MN. The garden and signage were designed by landscape architect Carmen



Simonet. The Middle-Snake-Tamarac Rivers Watershed District and Agassiz Audubon Society are engaged in developing plans for additional improvements at the property with emphases on education and conservation.

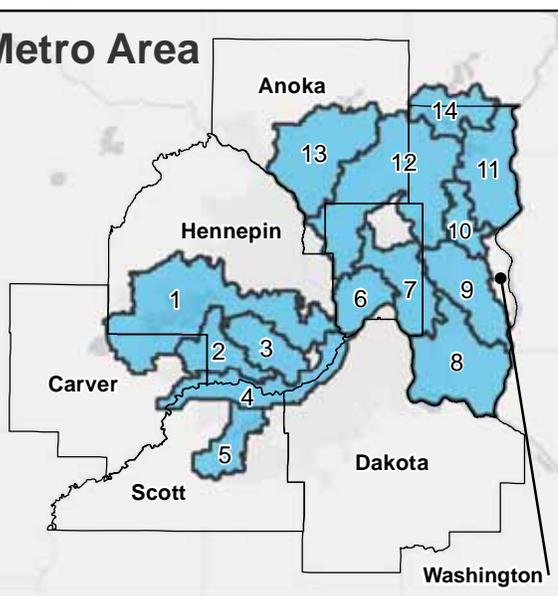
mstrwd.com

Minnesota Watershed Districts



See Metro Inset Map

Metro Area



Metro Watershed Districts

- 1, MINNEHAHA CREEK
- 2, RILEY-PURGATORY-BLUFF CREEK
- 3, NINE MILE CREEK
- 4, LOWER MINNESOTA RIVER
- 5, PRIOR LAKE-SPRING LAKE
- 6, CAPITOL REGION
- 7, RAMSEY-WASHINGTON METRO
- 8, SOUTH WASHINGTON
- 9, VALLEY BRANCH
- 10, BROWNS CREEK
- 11, CARNELIAN-MARINE-ST. CROIX
- 12, RICE CREEK
- 13, COON CREEK
- 14, COMFORT LAKE FOREST LAKE



Land and Water Shall be Preserved



Updated Nov. 2016