

Weekly LWC Update 5-26-17

ERRORS? OMISSIONS? If found, please notify barb.huberty@lcc.leg.mn.

Interested reader: each week, I gather general information for Legislative Water Commission members to help keep them apprised about water issues in Minnesota. This update contains a roundup of easily attainable MN water news, as well as articles from beyond MN that may inform member thinking. It also includes summaries of meetings I have monitored and reports I have read, as well as information about upcoming events. During the Legislative Session, updates on water-related legislation and committee activities are added. Any errors or omissions are inadvertent.

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The State Government Finance bill (SF1) was passed by the Senate and House this week, without LWC repeal language. The Governor has not yet signed the bill.

LEGISLATURE

No new individual water-related bills were introduced the last day of session or during the special session, so the total # of water-related bills for 2017 was 353 of 5,165 introduced bills (7%).

As you know, water is ubiquitous in the environment, so it should not be a surprise that water-related provisions could be found in several individual bills, as well as omnibus bills. Here are the bills that passed this session that contain water provisions and the path they took through the regular and special sessions. Watch next week for a summary of the water provisions contained in each bill. According to a tweet from the Governor's office on Friday, he intends to review all the unsigned bills and make decisions about which ones he will sign on Tuesday.

Summary of Actions for Bills with Water Related Provisions

Regular Session					Special Session	
Topic	Bill #	Signed?	New # after veto	Signed?	New #	Signed?
Rd Wetland Bank	HF434	signed				
Omn Ag Finance	SF780	vetoed	HF1545	not yet		
Omn Env & NR	HF888	vetoed	SF844	not yet		
Om Ed Fin (K-12)	HF890	vetoed	HF947	not passed	SSHF2	not yet
Omn State Gov	SF605	vetoed	HF399	not passed	SSSF1	not yet
Omn HHS	SF800	vetoed	SF799	not passed	SSSF2	not yet
Om Lands	SF1124	signed				
Om Public Safety	SF803	vetoed	HF470	not yet		

Omn Jobs	SF1937	vetoed	SF1456	not yet		
Omn Higher Ed	SF2214	vetoed	SF943	not yet		
Omn Tax	HF4	vetoed	HF1266	not passed	SSHF1	not yet
Legacy	HF707	not yet				
ENRTF-LCCMR	SF550	not yet				
Cap Invest	HF892/SF640	not passed			SSHF5	not yet

MN NEWS

WATER ACTIONS

- MPCA: [Northern Minnesota business owner and property owner assessed more than \\$1 million for environmental cleanup costs and penalties](#); Duluth News Tribune: [Court orders two Northland residents to pay \\$1 million for pollution violations](#)
- Fergus Falls Daily Journal: [House passes natural resources budget](#)
- Inforum: [Bipartisan work gives greater Minnesota legislative success](#)
- MPR: [Fond du Lac 'Water in a Time of Climate Change' event](#) [69 minutes]

SURFACE WATER/STORMWATER

- Strib: [Cleanup projects in the St. Louis River Area of Concern](#)
- Crookston Times: [VIEWPOINT – The budget and the damage done: Leave Minnesota Legacy Amendment alone](#)
- Faribault Daily News: [Public input desired for the Cannon River Watershed](#)
- Duluth News Tribune: [Massive restoration in works for Grassy Point, Kingsbury Bay](#)
- Mankato Free Press: [Le Sueur River erosion moves closer to homes](#)
- The Pilot Independent: [Water quality monitoring to begin on Leech Lake](#)
- Worthington Daily Globe: [Prairie View water project gets initial approval](#)
- Austin Daily Herald: [Volunteers to search for E. coli causes in the Cedar](#)
- Minnehaha Creek Watershed District: [2016 Lake Grades](#); some better, some worse, some no change
- MPCA: [Feedback Requested – New Stormwater Permit for Construction](#); *“Although no major permit changes will be proposed, several minor changes are needed as brought forward by both external stakeholders and MPCA staff. The MPCA is seeking early input on some of these changes for the permit.”*

GREAT LAKES

- mlive: [Bill would strip EPA authority over ballast water pollution](#); Wisconsin Gazette: [Senate committee advances bill to roll back rules protecting Great Lakes from invasive species](#)
- Mankato Free Press: [Senate bills seek tougher Great Lakes pipeline standards](#)

WATER SUPPLY

- MDH: [MDH issues new guidance on chemicals in some private wells, city water in East Metro, Bemidji](#); MPCA: [Drinking water standards for PFCs updated – MPCA to provide bottled water, filter system to affected private well owners](#); Strib: [Minnesota drastically tightens safety limits on 3M chemicals in groundwater](#); Woodbury Patch: [Chemicals In Woodbury's Water: MDH Issues New Guidance and Woodbury's Water Is Safe And Reliable: City](#); and Woodbury Bulletin: [Amid state PFC level change, Woodbury says water still safe to consume](#); Bemidji Pioneer: [Updated: State issues new advisory on chemicals found in city water in Bemidji, East Metro suburbs](#) and [New standards lead to groundwater advisory](#); Pioneer Press: [Safety of Washington County drinking water in doubt as state targets 3M](#)

[pollutants](#); MPR: [State tightens guidelines for PFCs in drinking water](#); alphanews: [MN Dept. of Health Doubles Federal Water Protections](#); Rochester Post Bulletin: [Around the state: Officials lower chemical limits in drinking water](#); Duluth News Tribune: [New standards lead to groundwater advisory in Bemidji, suburbs east of St. Paul](#); Albert Lea Tribune: [Minnesota officials lower chemical limits in drinking water](#); US News and World Report: [Minnesota Officials Lower Chemical Limits in Drinking Water](#)

- Woodbury Patch: [Cottage Grove Water Ban: What You Should Know](#); the watering ban is due to the lower PFC levels
- Duluth News Tribune: [Duluth weighs need for water rate increases](#); *“...the most durable cast-iron pipe that Duluth installed in the 1880s and 1890s can last for 120 to 130 years, meaning it's now coming due for replacement. ...the next-best pipe, installed from 1910-1920, lasts for about a century. Meanwhile, poor-quality pipe installed in the 1960s and '70s has had a life span of just 50 to 60 years. And many of the ductile iron pipes installed in the 1990s were incompatible with the chemistry of Duluth's clay soils, causing them to corrode and fail prematurely.”*
- WDAY6: [Breckenridge public works hoping for new water treatment plant](#); *“Each harbor would have its own wastewater treatment plant large enough to handle the city of Balaton.”*
- WCCO: [Brooklyn Park To Drain Water Reservoir After Vandalism](#)
- Worthington Daily Globe: [Iowa gets Lewis & Clark funding; Worthington waits anxiously](#)
- ABC5: [Lead Water Testing Bill Passes House](#)

WASTEWATER

- Fillmore County Journal: [Rushford plans for upcoming projects](#)

AG & WATER

- Fergus Falls Daily Journal: [House passes natural resources budget](#)
- West Central Tribune: [Southwest Minnesota's Tru Shrimp venture builds on region's crops](#); Prairie Business: [Southwest Minnesota's Tru Shrimp venture builds on region's crops](#)
- MPR: [Program rewarding farmers who protect water quality small, but growing](#)
- AgriNews: [Discover what's coming off your farmland](#)
- KEYC 12 Mankato: [Buffer Legislation Addressed In Special Session, Some Seek Clarification](#)

EXTRACTIVE INDUSTRIES

- MPR: [Study on proposed mining ban near Boundary Waters will proceed](#); Strib: [McCollum gets assurances BWCA mining review will continue](#)
- Strib: [Leaks found on Dakota Access pipeline system](#)

OPINIONS

- Grand Forks Herald: [Minnesota state representative: Tough to find partisanship in unanimously approved bill](#)
- Strib: [Anderson: Political assault on state's natural resources demands a united response](#)
- Grand Rapids Herald Review: [Sportsmen: Sulfide Mining Puts Jobs/Economy at Risk](#)
- Echo Press: [Echo Press editorial: Who will pay for clean water?](#)
- Winona Daily News: [Todd Paddock: Minnesota Legislators trash our outdoors](#)
- Faribault Daily News: [Continue progress toward our common goal of clean water](#)
- Strib: [Wetlands don't get credit they have coming, says outdoors writer](#)

BEYOND MINNESOTA REGIONAL

- Water Online: [3 Energy-Water Nexus Lessons From The State Of Texas](#)
 1. Encourage water utilities to create comprehensive, strategic energy plans
 2. Increase the use of smart technology
 3. Match water-stressed areas with renewable energy
- National Science Foundation: [In a drought, over-irrigated lawns lose 70 billion gallons of water a year](#); Summer 2010 in LA: 100 gal/person/day evaporated from lawns (70%) & trees (30%)
- Water Deeply: [How One Water Agency Thrived During California's Drought](#)
- The Planning Report: [Senate Chair of Natural Resources & Water Hopes to Enact Creative Solutions to Water Scarcity](#)
- Wisconsin Gazette: ['Leading on lead' campaign builds support](#); "the bill would allow local water utilities to offer grants or low-interest loans to property owners to replace lead pipes"
- New Jersey American Water: [Water Quality Report Splash Video](#); if your drinking water is supplied by a public community water supplier, they have to produce an annual water quality confidence report that describes testing results; this video explains what these tests are for (and links to New Jersey's results); in your town, your report may look more like one prepared by Rochester Public Utilities for [2015](#); here's an excerpt:

Results of Monitoring

No contaminants were detected at levels that violated State or Federal drinking water standards. However, some contaminants were detected in trace amounts that were below legal limits. The table that follows shows the contaminants that were detected in trace amounts last year. Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for in 2015. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date the detection occurred. In 2015 we also collected and tested over 1,200 water samples for coliform bacteria, which we showed no bacteria present in the water.

Regulated Substances

Parameter	Units	MCLG	MCL	Range	Avg. Results*	Typical Source of Contaminant
Alpha Emitters	pCi/l	0	15.4	ND-7.2	7.2	Erosion of natural deposits.
Barium	ppm	2	2	NA	0.06	Discharge of drilling wastes, Discharge from metal refineries, Erosion of natural deposits.
Chloride**	ppm	4	4	0.22-1.0	0.86	Water additive used to control microbes.
Combined Radium	pCi/l	0	5.4	ND-0.9	5.9****	Erosion of natural deposits.
Halocetic Acids (HAA5)	ppb	0	60	ND-4.1	3.9	By-product of drinking water disinfection.
Nitrate (as Nitrogen)	ppm	10.4	10.4	ND-0.72	0.72	Runoff from fertilizer use, Leaching from septic tanks, sewage, Erosion of natural deposits.
TTM (Total Trihalomethanes)	ppb	0	80	1.9-15	10.35	By-product of drinking water disinfection.
Tetrachloroethylene	ppb	0	5	ND-0.51	0.47	Leaching from PVC pipes, discharge from factories and dry cleaners.
Total Coliform Bacteria	Presence/Absence	0	>5 %	NA	1%****	Naturally present in the environment.
Trichloroethylene	ppb	0	5	ND-0.1	0.07	Discharge from metal deepening sites and other factories.

* This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes equal to or lower than all the detected values. If it is an average, it may contain sampling results from the previous year.

** Highest and Lowest Monthly Average

*** Four quarterly samples are required to determine an average compliance value for this contaminant. At the end of 2015, less than four samples had been collected (the well with the higher limit was out of service), therefore violation criteria could not be determined. Sampling will continue when the well is back in service.

**** Follow-up sampling showed no contamination present.

Source Water Test Results

Parameter	Units	SMCL/MCLG	Avg. Results	Effects - Source
Alkalinity	ppm	N/A	260	Carbonate rocks (birefractance)
Aluminum	ppm	0.05 to 0.2	0.006	Colored water
Calcium	ppm	N/A	72	Mineral deposits from rock
Chloride	ppm	250	4.87	Salty taste
Copper	ppm	1.3	0.3	Erosion of natural deposits
Hardness, Total	ppm	N/A	283	Mineral deposits
Hardness, Total	gpg	N/A	17	Mineral deposits
Iron	ppm	0.3	0.28	Rusty color, staining, metallic taste
Lead	ppb	0	0	Erosion of natural deposits
Manganese	ppm	0.05	0.04	Black-to-brown color, staining, metallic taste
Magnesium	ppm	N/A	24.5	Mineral deposits from rock
pH	pH	8.5 to 8.5	7.5	Corrosion, metallic taste if below 8.5, opposite, slippery feel, soda taste if above 8.5
Sodium	ppm	20	10	Salty taste - Erosion of natural deposits, (range 1.25 to 10)
Sulfate	ppm	250	45.9	Laxative effect - Erosion of natural deposits (range 10.5 to 45.9)
Total Dissolved Solids	ppm	500	330	Hardness, deposits, colored water, staining, salty taste
Turbidity	Ntu	N/A	<1	Refers to how clear the water is.

Key

MCL (Maximum Contaminant Level) Highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal) Level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

NA Not Applicable.

ND Not Detected.

NT Not Tested.

ppm Parts per million.

ppb Parts per billion.

gpg Grains per gallon.

PCV Pico curies per liter (a measure of radioactivity).

Range Lowest to the highest a contaminant was detected in 2015.

AL Action Level is the concentration of a contaminant which triggers treatment or another requirement which a water system must follow.

90% Level 90% of samples must be below the AL.

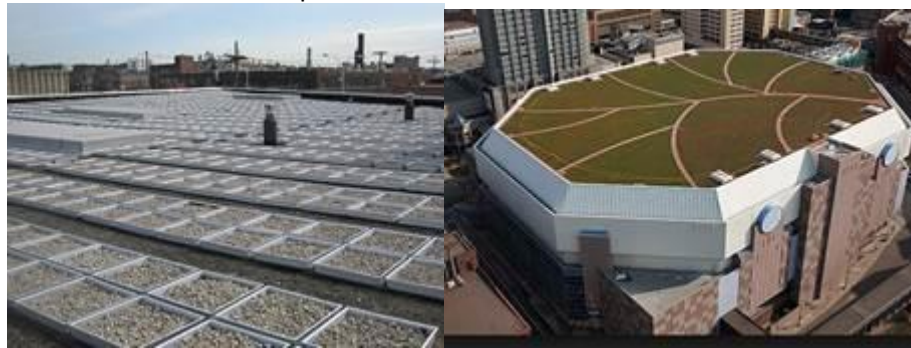
SMCL Secondary Maximum Contaminant Level.

Ntu Nephelometric units.

NATIONAL

- MPR: [Trump budget slashes money of clean air and water programs](#); the proposed EPA budget is reduced by nearly 1/3rd
- AP News: [House approves bill seeking to upend EPA pesticide rule](#)

- AgriPulse: Perdue: [Can't 'sugar coat' Trump budget cuts to farm bill funding](#); to be cut: rural development programs, no new enrollments in the Conservation Stewardship Program & the Regional Conservation Partnerships Program, enrollment in the Conservation Reserve Program limited to continuous signup and grasslands
- The Hill: [Trump lays out \\$1T infrastructure vision in budget request](#); the proposal plans to improve efficiency by eliminating or reforming regulations; see pages 5 & 6 of White House [Fact Sheet on 2018 Budget: Infrastructure Initiative](#) for more details on environmental review and permitting process enhancements and read The Hill: [White House looks to speed infrastructure pace](#)
- US Government Accountability Office: [USDA's Environmental Quality Incentives Program Could Be Improved to Optimize Benefits](#); read the full report: [Agricultural Conservation - USDA's Environmental Quality Incentives Program Could Be Improved to Optimize Benefits](#); EQIP expenditures in Minnesota were:
 - Obligations from fiscal years 2009-2015: \$142,307,720
 - Obligations for fiscal year 2015: \$17,825,015
 - % of total obligations from fiscal years 2009-2015: 2.5%
- Biz Times: [Companies paying closer attention to water usage, handling](#); “blue roofs”, like the one pictured below use structures to slow stormwater runoff, instead of plants in “green roofs” like the one on Target Center in downtown Mpls



MEETINGS

CWC – POLICY COMMITTEE

This week, the policy committee of the Clean Water Council met to begin the process of winnowing through a long list of possible policy topics to decide which they will study in detail over the coming months. Their studying began with a presentation about a new U of MN Water Resources Center-Friends of the Mississippi River report [‘Moving the Needle’: Improving Water Quality in Minnesota While Developing Our Agricultural Economy](#). This report was prepared for the Governor prior to his announcement of his “25 by 25” initiative and so far it has been shared with the EQB and the interagency coordination team.

To prepare the report, a group of 13 selected experts convened over several meetings to discuss how water quality problems related to agriculture can be solved while providing a lasting and sustainable agricultural economy. Over the last 75 years, conservation investment has been made primarily through installation of practices through cost-share programs and land retirement programs. Despite this, pollutant trends for sediment and phosphorous have declined only slightly and nitrates are increasing. In the U of MN’s 2013 report on nitrogen in surface waters, potential solutions were categorized into 3 types of practices and the annualized cost savings or added cost was calculated based on the lifespan of the practices:

- vegetative changes – adds cost of \$1,400M (this is high because land is taken out of production & cover crops so far are not a marketable product)
- tile drainage – adds cost of \$74M
- fertilizer management optimized – cost savings of \$77M

Even though it can save money, there are other barriers to optimization of fertilizer management, including: adoption of new equipment or technology, reluctance to change behavior, and site specific variables that affect rates of application.

The process yielded the following outcomes:

- consensus on these 5 key principles:
 1. policies should do no further harm
 2. the public gains from co-benefits (e.g. improve WQ, increase habitat, carbon sequestration...)
 3. effective policies require targeting (flexibility to do different things in different places)
 4. build on existing institutions and programs
 5. focus on environmental performance instead of prescribed practices (outcomes not accounting of practices)
- incomplete consensus on these policy alternatives:
 1. Diversify cropping systems:
 - a. transition 10% of corn/soy row crop acres to perennial plantings
 - establish a blue ribbon task force on markets for perennials
 - incentivize market creation to encourage adoption of alternative crops for food, fuel, fiber; target acres of negative or low ROI
 - incentivize farmers to diversify crops
 - support research on new crops
 - assess viability of forage crops (i.e., hay and alfalfa for meat and dairy production)
 - offer technical assistance for converting to new crops
 - b. effect change in federal farm policies to promote water quality
 - extend conservation compliance to include nutrient management standards
 - link conservation practices to crop insurance
 - create a task force to raise profitability of perennial crops
 - expand research for new cropping systems
 2. Manage ag water drainage (quantity and quality):
 - a. revise drainage law to make drainage authorities accountable for discharges of public ditches
 - b. reduce peak flows; create incentives for water storage (drainage water recycling)
 3. Incentivize changes through producer certification programs:
 - a. raise the certification threshold in MAWQCP to achieve water quality
 - b. provide additional incentives to participate
 - c. expand and leverage the Field Stewards program (or other supply chain certifications)

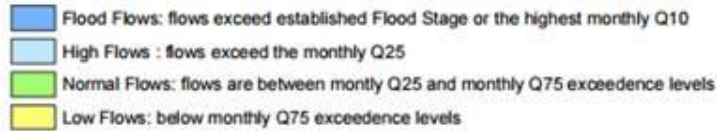
BWSR BD

At this month's Board of Soil and Water Resources Board meeting, the Erosion Control and Water Management Policy was up for amendment and the Administrative Penalty Order Plan for Buffer Law Implementation was on deck for adoption, along with Policy 9: BWSR Review of County and Watershed District Buffer Rules, Ordinances and Official Controls. To review these documents and other Board action items, go [here](#).

REPORTS

STATE OF MN WATER

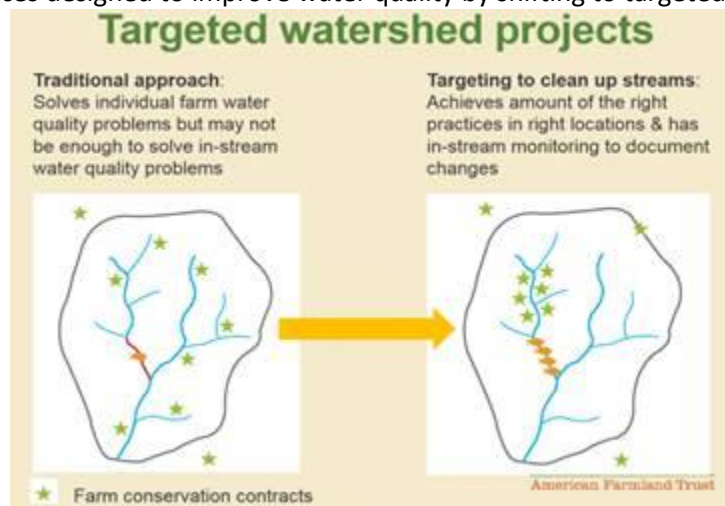
- DNR: [MN Stream Flow Report 5/22/17](#); our statewide variability is showing this week with flows in 4 categories, from low flows to flood flows:



- National Drought Mitigation Center: [5/23/17 MN Drought Monitor](#); big change: westernmost area now normal, but north central now abnormally dry
- DNR: April 2017 [Hydrologic Conditions Report](#); scroll through to see the “at a glance” maps of water conditions

NEW REPORTS

- NACWA: [Roadmap to a Secure and Resilient Water and Wastewater Sector](#); top priority areas:
 - Establish the critical lifeline status of the Water and Wastewater Sector and translate that definition into strong support for the sector’s needs and capabilities.
 - Improve detection, response, and recovery to contamination incidents.
 - Advance preparedness and improve capabilities of the Water and Wastewater Sector for area-wide loss of water and power.
 - Advance recognition of vulnerabilities and needed responses related to cyber risk management.
- Iowa State University: [Iowa Nutrient Reduction Strategy Annual Progress Report](#) [this isn’t so new, but I hadn’t seen it before]
- NACWA: [2016 Cost of Clean Water Index](#); EPA Region 5, which includes MN, has 2nd annual average wastewater charges
- American Farmland Trust & World Resources Institute: [Water Quality Targeting Success Stories](#) - How to achieve measurably cleaner water through U.S. farm conservation watershed projects; view the [Water Quality Targeting Success Stories Webinar](#); this report shares results from an evaluation of ag programs and practices designed to improve water quality by shifting to targeted watershed projects:



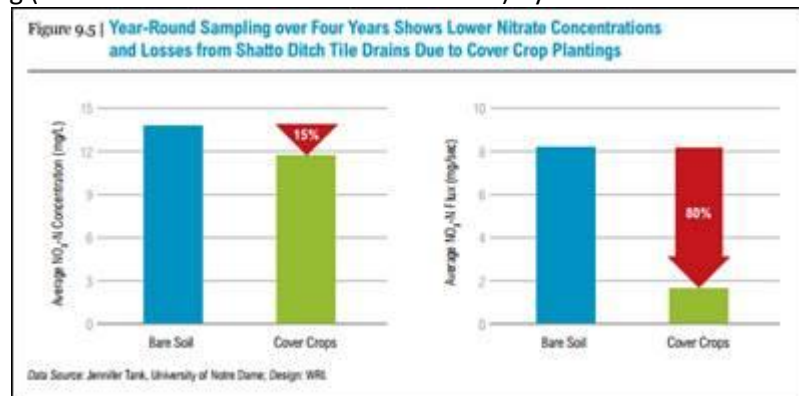
- 6 case studies representing excellence are described in detail; key take-aways:
- results happen when impairment listings are made or regulations require action
 - it takes a village of partners to achieve success (e.g., farmer-leaders, trade organizations, NGOs, local SWCDs, & state agencies)
 - funding came from USDA, NRCS, EPA, states, non-profits and farmer-matches
 - money is needed for the long haul; example projects took from 8 to 13 years to complete
 - projects are most successful when efforts are targeted to the most problematic areas and when they are done at the HUC12 watershed scale (see example below)

- to demonstrate water quality improvements, in stream, paired monitoring is needed; the effects of practices can be monitored via isolated monitoring
- there are effective diagnostic tools available to measure and incentivize in-field and watershed wide outcomes
- 3 major challenges were noted: social considerations & budgetary pressures, more water quality monitoring guidance is needed, and confidentiality provisions of the Farm Bill are a barrier to measuring success (read p. 131)
- the report concludes with recommendations for project managers, NRCS, EPA, Congress, researchers and NGOs

How big is a HUC12 watershed? Highlighted in turquoise below is the Torkelson Creek HUC12 catchment, which is within the Trout Run Creek HUC10 unit that is tributary to the HUC8 Root River watershed in SE MN. It is about 32 square miles.



Here is an example of data contained in the report showing positive results from the Indiana case study, where use of cover crops was shown to decrease nitrate concentrations in tile drains by 15% and nitrate loading (that accounts for concentration & flow) by 80%.



UPCOMING EVENTS

- June 8: **Open House on the Minnesota River Valley Recreation and Conservation Master Plan**; Redwood Falls Public Library community room; 4:30 to 7:30 pm
- June 12-13: **4R Nutrient Stewardship Summit**; Radisson Blu Downtown Minneapolis Hotel; \$200; agenda [here](#); registration [here](#)
- **June 15: LWC Meeting, 10:30 am to 12:30 pm; Rm 5 State Office Building**; more details to come [here](#)
- June 21-23: **MN Association of Watershed Districts Summer Field tour**; details [here](#)

- June 22: Alliance for Water Efficiency **Net Blue: Supporting Water-Neutral Community Growth webinar**; free; information & registration link [here](#)
- July 31: **"25 by 25" Water Quality Town Hall**, evening, Rochester, details to come [here](#)
- Aug 1-3: **Farmfest**; more information [here](#)
- Aug 7-9: **WaterWorks! Drinking Water Institute for Educators**; Lakeville; details [here](#)
- Aug 16: **"25 by 25" Water Quality Town Hall**, evening, Marshall, details to come [here](#)
- Aug 17: **"25 by 25" Water Quality Town Hall**, evening, Mankato, details to come [here](#)
- Aug 22: MN Technical Assistance Program Intern Symposium; U of MN McNamara Alumni Center; more info [here](#)
- Sept 5: **"25 by 25" Water Quality Town Hall**, evening, Crookston, details to come [here](#)
- Sept 6: **"25 by 25" Water Quality Town Hall**, evening, St Cloud, details to come [here](#)
- Sept 12: **"25 by 25" Water Quality Town Hall**, evening, Ely, details to come [here](#)
- Sept 13: **"25 by 25" Water Quality Town Hall**, evening, Bemidji, details to come [here](#)
- Sept 19-20: **Great Lakes Commission Annual Meeting**; Duluth Entertainment Convention Center; more details to come
- Sept 26: **"25 by 25" Water Quality Town Hall**, evening, Minneapolis, details to come [here](#)
- Oct 4: **"25 by 25" Water Quality Town Hall**, evening, Burnsville, details to come [here](#)
- Oct 5: **"25 by 25" Water Quality Town Hall**, evening, Maplewood, details to come [here](#)
- Nov 1-3: **BWSR Academy** Cragun's Conference Center; Brainerd; registration to come in August