

Weekly LWC Update 3-17-17

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.

Barb Huberty, Director, MN Legislative Water Commission
100 Rev. Dr. Martin Luther King Jr. Blvd., Rm 65 State Office Building
St. Paul, MN 55155
Phone: 651/284-6431

Subscribe to the weekly update & follow LWC meetings at: www.lcc.leg.mn/lwc/

Next 2 LWC meeting dates set:

- Monday, March 27th, 6 to 8 pm, State Office Building basement hearing room; see [agenda](#)
- Monday, April 24th, 6-8 pm, State Office Building basement hearing room; the focus will be on N&E metro water issues, including White Bear Lake

LEGISLATURE

COMMITTEES ACTIVITIES THIS WEEK

Nearly all bills are being amended as they move through the committee process. To see the text of introduced bills or as amended (called engrossments) go to the Legislature's [bill search](#) web page and enter the bill # of interest. Keep in mind that there is usually a delay between the committee's actions and when the amended versions are posted.

In the Senate:

- The Environment and Natural Resources Finance Committee laid over SF695, re-referred SF1542 to taxes, laid over SFs 1351 and SF2103, and re-referred SF1087 to the Finance Committee
- The Environment and Natural Resources Policy and Legacy Finance Committee laid over SF1695; SF1290 and SF565 were re-referred to the Environment and Natural Resources Finance Committee; and SF865 was amended with a delete all amendment to become the Omnibus Environment Policy bill and re-referred to the Environment and Natural Resources Finance Committee – this bill contains provisions from these earlier bills: SFs 1695, 1122, 1482, 289, 865, 1417, 1731, 1458, 1093, 1310, and 844
- The State Government Committee laid over SF737; after being heard in the Judiciary and Public Safety Finance and Policy Committee last Friday and re-referred to the State Government Committee, SF1087 was heard and re-referred to the Environment and Natural Resources Finance Committee; HF1542 was re-referred to taxes
- The Taxes Committee laid over SF1368

In the House:

- The Environment and Natural Resources Policy and Finance Committee passed HF1265 to the General Register; House Public Information Services: [LCCMR bill moves forward despite](#)

[substantial changes](#); see the water-related projects and funding amounts that being recommended by the LCCMR, as amended by the House Environment Committee below:

LCCMR Water Related Proposals Contained in HF1265, as amended with DE-1, A-7, & A-10 on 3/15/17

Draft Work Plan	Original ENRTF ID	Title	Total LCCMR \$	Total LCCMR \$	TOTAL	Organization
			FY2017	FY2018		
Subd. 03 Foundational Natural Resource Data and Information						
03a	001-A	County Geologic Atlases - Continuation	\$3,700,000	\$0	\$3,700,000	U of MN - MN Geological Survey
03b	002-A	Assessment of Public Benefits of Protecting Source Water	\$0	\$320,000	\$320,000	U of MN
03g	011-A	Drainage Records Modernization Cost Share - Phase II	\$0	\$540,000	\$540,000	BWSR
03h	012-A	Groundwater Contamination Mapping	\$0	\$400,000	\$400,000	MPCA
Foundational Natural Resource Data and Information Subtotal =			\$3,700,000	\$1,260,000	\$4,960,000	
Subd. 04 Water Resources						
04a	033-B	Assessment of Household Chemicals and Herbicides in Rivers and Lakes	\$0	\$236,000	\$236,000	U of MN
04b	034-B	Wastewater Nitrogen Removal Technology to Protect Water Quality	\$0	\$450,000	\$450,000	U of MN
04d	044-B	Water Quality Monitoring in Southeastern Minnesota Trout Streams	\$0	\$500,000	\$500,000	Winona State University
04e	048-B	Reassessing Toxicity of Petrochemical Spills on Groundwater and Surface Water	\$0	\$300,000	\$300,000	University of St. Thomas
04f	055-B	Assessment of Water Quality for Reuse	\$0	\$148,000	\$148,000	U of MN
04g	059-B	Identification of Chemicals of Emerging Concern in Minnesota Fish	\$0	\$400,000	\$400,000	Grand Portage Band of Lake Superior Chippewa
04h	183-I	Techniques for Water Storage Estimates in Central Minnesota	\$0	\$250,000	\$250,000	U of MN
04i	184-I	Assessing Release of Mercury and Sulfur on Aquatic Communities	\$0	\$300,000	\$300,000	U of MN

Water Resources Subtotal =			\$0	\$2,584,000	\$2,584,000	
Subd. 05 Environmental Education						
05a	079-C	Connecting Youth to Minnesota Waterways through Outdoor Classrooms	\$0	\$1,200,000	\$1,200,000	Wilderness Inquiry
Environmental Education Subtotal =			\$0	\$1,200,000	\$1,200,000	
Subd. 06 Aquatic and Terrestrial Invasive Species						
06a	106-D	Aquatic Invasive Species Research Center - Phase II	\$2,700,000	\$0	\$2,700,000	U of MN
06c	114-D	Invasive Bighead and Silver Carp and Native Fish Evaluation - Phase II	\$0	\$500,000	\$500,000	MN DNR
06d	119-D	Adapting Stream Barriers to Remove Common Carp	\$0	\$301,000	\$301,000	U of MN
06e	122-D	Tactical Invasive Plant Management Plan Development	\$0	\$296,000	\$296,000	MDA
06f	123-D	Maximize Value of Water Impoundments to Wildlife	\$0	\$195,000	\$195,000	Audubon Minnesota
Aquatic and Terrestrial Invasive Species Subtotal =			\$2,700,000	\$1,292,000	\$3,992,000	
Subd. 08 Methods to Protect or Restore Land, Water, and Habitat						
08l	196-K	Conservation Reserve Enhancement Program (CREP) Outreach and Implementation	\$0	\$6,000,000	\$6,000,000	BWSR
NA	NA	Conservation Reserve Enhancement Program (CREP) Outreach and Implementation	\$1,029,000	\$20,071,000	\$21,100,000	BWSR
Methods to Protect, Restore, & Enhance Land, Water, & Habitat Subtotal =			\$1,029,000	\$26,071,000	\$27,100,000	
WATER TOTALS =			\$7,429,000	\$32,407,000	\$39,836,000	

The original recommendations can be seen in the bill, [as introduced](#), or on the LCCMR [website](#).

- The Job Growth Committee laid over HF1317
- The Legacy Funding Finance Committee laid over HF1986, HF1485, and HF1731
- The Property Tax and Local Government Finance Division laid over HF1466
- The State Government Committee heard HF1433 as an informational item; no action was taken

A total of 82 (26%) of introduced water-related bills have received action, to date, beyond introduction. The first Omnibus bill has emerged (SF865). The green Committee Assignment cells in the following table show committee actions:

House File	Chief/LWC Authors	Committee Assignment	Senate File	Chief/LWC Authors	Committee Assignment	Description (as introduced, not as amended)
198	Hanson	Legacy -> laid over	18	Klein	ENRP&LF	\$5M CWF to Met Council for grants/loans for local inflow/infiltration reduction programs in metro area

151	Murphy, M	Legacy -> laid over	179	Simonson	ENRP&LF -> laid over	\$350K from CWF to Admin for grant to Lake Superior Center Authority for new river systems exhibit (dba the Great Lakes Aquarium)
200	Lien, C Johnson, Bly	Ag Policy -> Prop Tax -> laid over	111	Eken	Ag & Rural Dev -> taxes	Ag and Revenue Departments to study the impact of taxing ag lands based on production value (including identifying types of ag properties not directly used in ag production and approaches for valuing them)
None	None	None	210	Senjem, Eken	Cap Invest -> Finance -> gen ord	omnibus bonding bill; \$213.225M in bond proceeds DNR, MPCA, BWSR, MDA, Met Council, MDH, DEED and PFA to fund various capital investment programs and projects, including those related to water infrastructure and water resources
457	Howe	ENRPF -> laid over	233	Fischbach	ENRF -> laid over	Extends availability of grant money to remove and prevent aquatic invasive species
710	Uglem	ENRPF -> Legacy-> laid over	262	Ingebrigsten, Ruud	ENRP&LF	\$103,978,000 in 2018 and \$585,000 in 2019 from the outdoor heritage fund to various recipients
284	Hamilton	Ag Finance	315	Westrom	Ag, RDP -> Ag, RDF -> Finance	\$2.218M general fund to MDA to equip ag laboratory
2330	Loeffler	ENRPF	316	Dziedzic	Energy & Utilities -> laid over	\$___ general fund to DOC to establish a green roof advisory task force
398	Torkelson	ENRPF	348	Dahms, Weber	ENRF -> laid over	\$378K from gen fund to BWSR for grant to Area II Mn River Basin floodplain management projects
431	Norness, Johnson, Torkelson	ENRPF	371	Ingebrigsten, Ruud	ENRP&LF -> ENRF	\$5M gen fund to BWSR to acquire wetland banking projects for road projects and \$10M bond proceeds to purchase land or easements for the wetland banks

434	Fabian, <i>Torkelson</i>	ENRPF -> W&M (1st Engr) -> gen reg - passed, signed by Gov	326	Ingebrigsten, <i>Lang</i>	ENRP&LF -> Transp F&P -> ENRF -> Finance -> gen orders - passed, signed by Gov	where road replacement wetland bank credits are not available, BWSR must use credits from other service areas as permitted by state/fed law and wetland disturbances up to 10K sq ft for roads previously authorized by ACE Sec 404 are exempt from WCA [note: SF 326 amended to include \$1.4M fire remediation for Madelia and \$296K fire remediation for Watonwan Co; see HF468/SF627]
468	Cornish	Job Growth - > W & M -> incorp into 434	627	Rosen	Jobs -> laid over -> incorp into 326	\$101K gen fund to DEED for grant to reimburse Madelia for infrastructure repair costs from 1/16 fire
495	Sundin	Job Growth - laid over	361	Lourey	Cap Invest	\$2.2M bond proceeds to PFA for grant to Big Lake Area Sanitary District for wastewater connection to WLSSD connector in Cloquet
552	Green, <i>Poston</i>	Gov Ops -> laid over	None	None	None	Grant of authority in law required for adoption of rules, and threshold for conducting a public hearing on expedited rules reduced
560	Kiel	Legacy -> laid over	399	Johnson, <i>Eken</i>	ENRF -> ENR&LF-> laid over	\$300K over 2 yrs from CWF to MPCA for grant to Red River Mgmt Bd for River Watch monitoring and education program
575	Urdahl	Cap Invest -> W & M -> gen register	396	Senjem	Cap Invest	Lanesboro dam project exempted from a nonstate contribution
653	Gunther, C. <i>Johnson, Poston</i>	Job Growth - > laid over	391	Jasinski, <i>Lang</i>	Cap Invest	\$15M bond proceeds to DEED for grants under the Greater MN business development public infrastructure program
649	Backer	Job Growth - > laid over	472	Westrom	Cap Invest	\$11.495M bond proceeds to PFA for Morris to demolish and replace its water treatment plant to reduce chloride discharges to Pomme de Terre River from its WWTF
635	Hamilton	Job Growth - > Cap Invest	543	<i>Weber</i>	Cap Invest	existing bond authorization purposes modified for the Lewis & Clark Regional Water System & \$5M bond proceeds authorized for Phase 3

702	O' Driscoll, Poston, Gruenhagen	ENRPF	695	Newman, Eken	ENRP&LF -> state gov't - > ENRF -> laid over	provides for expert review of agency actions and prohibits use of unadopted rules
706	Gunther	Legacy -> W&M -> gen reg	565	Ruud	ENRP&LF -> ENRF	no more than 95% of the projected balance for each of the Legacy funds may be appropriated in a fiscal year
707	Gunther	Legacy -> laid over	566	Ruud	ENRP&LF	\$50K from the Legacy and Environmental Trust Funds to LCC in FY18 to maintain the dedicated funding website
717	Green	Legacy -> laid over	643	Johnson, Ruud	ENRP & LF	\$__ CWF and \$__ gen fund to DNR for grants to road authorities or WDs for replacing culverts as part of water quality or environmental improvement projects, respectively
1265	Heintzeman	ENRPF -> Gen Reg	550	Westrom	ENRF -> Finance	\$8.428M in FY2017 and \$50.728M in FY2018 from the ENRTF to various recipients (LCCMR bill)
766	Swedzinski	ENRPF -> laid over	672	Ruud, Weber, Eken	ENRP&LF -> State Gov't	Modifies public comment period requirements for draft impaired waters list notices, provides process to challenge impaired waters lists, and requires notice to publicly owned wastewater treatment facility applicants
821	Loonan	ENRPF	701	Hall	ENRF -> laid over	\$960K gen fund to BWSR for grant to Lower MN River WD to defray dredge site O & M cost
829	Hornstine	Transp & Reg Gov -> laid over	641	Dibble	Local Govt	Established sewer availability charges stakeholder group
None	None	None	717	B Anderson, Weber	ENRF - no action	MPCA must review wastewater treatment projects receiving financial assistance to ID wastewater discharge impact on geographic aquifer; definitions added
1003	Lueck	ENRPF -> Gov Ops -> Gen Reg	737	Weber, Ruud, Eken	ENRP&LF -> state gov't - > laid over	MPCA shall amend MnR 7001.0150 using the MnStat 14.388 good cause exemption to allow a municipality that builds a WWTF to comply with new/modified effluent limits compliance with any new/modified limits adopted

						after construction onset if it would require additional capital investment until the new/modified WWTF is 80% depreciated
1285	Pugh	Gov Ops-> laid over	769	Kiffmeyer	State Govt - > laid over	Agencies can't adopt rules without legislative approval
790	Gruenhagen	Gov Ops	822	Newman	State Govt - > laid over	Agencies must submit all contested case hearings to the Office of Administrative Hearings for disposition
1858	Miller	ENRPF	835	Draheim, Weber	Ag & Rural Dev -> ENRP&LF	buffer law compliance practices must use only seed mixes grown & processed in MN
1076	<i>Bly, C Johnson</i>	Ag Finance - > laid over	None	None	None	\$10M gen fund to MDA for grant to U of MN for Forever Green program to protect natural resources while supporting ag economy via development of perennial and winter annual crops
761	Hamilton, C Johnson	Ag Policy -> Gov ops -> gen register, incorporated in HF1717	960	Westrom	Ag, Rural Dev -> general orders	extends the ag fertilizer research and education program and council
1456	Swedzinski	Ag Policy	1016	Weber	Ag, Rural Dev -> ENRP&LF	modifies public comment and environmental review provisions for CAFOs; mandatory EAW not required for CAFOs <2K animal units; public notice concurrent with CUPs notice by LGU
1291	Fabian	ENRPF -> Civil Law -> Gov Ops -> W&M	1087	Ingebrigsten, Ruud	ENRP&LF -> Judiciary -> state govt - > ENRF -> Finance	modifies permitting, rules, and environmental review processes for DNR & MPCA; eliminates the EQB & transfers duties to the MPCA and gives some duties to the CWC
1317	Newberger	Job Growth - > laid over	1933	Mathews	Cap Invest	\$1.2M bond proceeds to PFA for Clear Lake-Clearwater Sewer Authority to remove/replace WWTF to control P discharges to the Mississippi River

1387	Newberger, <i>Torkelson</i>	ENRPF -> laid over	1290	Mathews	ENRP&LF -> ENRF	modifies groundwater appropriation permit requirements and well interference claim requirements
1433	Kresha, <i>Torkelson</i>	Gov Ops -> laid over (info for State Gov)	None	None	None	regulates rulemaking, reviews/ repeals EAW/EIS, restricts implementation and enforcement of policies/guidelines/statements; increases rule oversight; modifies notice requirements; requires impact analysis; modifies SONAR requirements
1466	<i>Torkelson</i>	ENRPF -> Taxes -> laid over	1395	Westrom, <i>Eken</i>	ENRF -> gen ord	\$10M gen fund to Dept of Revenue to make payments to LGUs that assume jurisdiction for implementation and enforcement of the buffer law
1485	Ecklund	Legacy -> laid over	1360	Bakk, <i>Ruud</i>	ENRP&LF	\$2M from CWF to MPCA for grants to LGUs for sanitary sewer projects included in the VNP Clean Water Comprehensive Plan to restore waters of VNP
1498	Loonan	ENRPF	1131	Hall	ENRF -> ENRP&LF	\$4.5M from CWF to BWSR to coordinate the development & implementation of goals and strategies for sediment, flow & nutrient reduction in the MN River Basin; with \$2M to local grants, \$2M to research, & 500K to BWSR for oversight
1557	Drazkowski	ENRPF -> laid over	1351	Goggin	ENRP&LF -> laid over	When a court has ruled that there has been no violation of a wetland restoration or replacement, recording of the order on a deed is prohibited
1673	Fabian	ENRPF -> gen reg	1695	<i>Ruud</i>	ENRP &LF - > laid over	DNR game and fish bill; includes a change to 103G.411 re: stipulation of low water mark no longer requires approval of attorney general
893	Dauids	Taxes -> laid over	726	Chamberlain	Taxes	Tax bill; includes provision for farmers to receive \$40/tillable acre converted to a public waters buffer
916	Hilstrom	Public Safety - Security P&F -> laid over	743	Eaton	Judiciary - Public Safety F&P	requires county sheriffs to maintain collection boxes for drugs

1796	<i>C Johnson, Bly</i>	ENRPF	1417	<i>Ruud</i>	ENRP&LF -> laid over -> SF865 (OEP) -> ENRF	establishes 25% water pollution reduction goal by 2025
1863	<i>Dettmer, Fischer</i>	ENRPF -> laid over	1458	Chamberlain	ENRP&LF -> laid over -> SF865 (OEP) -> ENRF	modifies wetland replacement requirements by defining 80% wetland bank replacement areas
1807	Lueck	ENRPF	1482	Tomassoni	ENRP&LF -> laid over -> SF865 (OEP) -> ENRF	surplus wetland replacement credits obtained in association with a mining permit issued on/after 7/1/91 to may be used to off-set future mining-related wetland impacts under any permits to mine held by the permittee or their associates
1717	P Anderson	Ag Policy -> gen reg	1674	<i>Weber</i>	Ag, RD & HP -> gen ord	Omnibus Ag bill ; includes modification of MnStat Ch 18B provisions related to experimental pesticide use and treated seeds
1731	<i>Torkelson</i>	ENRPF -> Legacy -> laid over	1734	<i>Ruud</i>	ENRP&LF	\$220.514M CWF to MDA, PFA, MPCA, DNR, BWSR, MDH, Met Council, U of MN, LCC
1747	Wagenius	Transp & Reg Gov -> Gov Ops	1877	Torres-Ray	Local Govt	Met Council must not impose a sewer availability charge on a LGU for existing eating/drinking establishment due to expansion of outdoor seating unless the # of fixtures discharging to the sanitary sewer increase or the capacity of the pipes are increased; the charge must be proportionate to increase on demand
None	None	None	1646	<i>Weber, Ruud</i>	ENRF -> laid over	\$300K gen fund to MPCA for a grant to Shell Rock River WD for a pilot project for a water quality credit trading program for stormwater
1994	<i>Torkelson, Gruenhagen</i>	ENRPF -> Ag Pol -> ENRPF	1693	<i>Weber</i>	ENRP&LF -> gen ord	modifies buffer law, limiting APO authority to BWSR, 50' buffer applies to public waters with shoreland classification; 16.5' to those without and to public ditches; extends compliance date for both to 11/1/18; enforcement can only

						occur if 100% of cost to establish buffers is provided
2028	Fischer, Torkelson, C Johnson	ENRPF -> laid over	1731	Ruud, Wiger	ENRP&LF -> laid over -> SF865 (OEP) -> ENRF	exempts stormwater reuse projects from water-use permit requirements
1986	Bernardy	Legacy -> laid over	1992	Laine, Wiger	ENRP&LF	\$15K CWF to DNR for grant to New Brighton for aquatic invasive species control & education
2301	Lueck	Higher Ed	2103	Tomassoni	ENRF -> laid over	\$1M in 2018, \$3M in 2019 and each yr thereafter from bond proceeds to the DNR to transfer to the U of MN Bd of Regents for the Natural Resources Research Institute for ops, maintenance, research and staff for applied research in water and other key areas
1752	Torkelson	ENRPF	1542	Dziedzic	ENRF -> taxes	establishes riparian-buffer compensation program ; \$11K FY18, \$434K FY19 from general fund to DOR for administration; \$286K to DOR base budget for FY20-21
1711	Loonan	Taxes -> property taxes	1368	Pratt	Taxes -> laid over	modifies the definition of agricultural purpose to include local conservation programs
1483	B Johnson	ENRPF	865	Ruud	ENRP&LF -> ENRF	modifies blaze orange hunting requirements to allow for blaze pink; amended in the Senate to become the OMNIBUS ENVIRONMENT POLICY BILL

WATER BILLS

The pace of water-related bill introductions has slowed significantly this 11th week of Session. On the table below, the gold shaded cells are bills introduced this week (or that I missed earlier) that are companions to bills introduced previously. Click on the File # hyperlinks for more details. As of 3/17/17, 315 of 4,625 introduced bills (7%) are water-related.

House File	Chief/LWC Authors	Senate File	Chief/LWC Authors	Description (as introduced, not as amended)
2330	Loeffler	316	Dziedzic	\$___ general fund to DOC to establish a green roof advisory task force

2301	Lueck	2103	Tomassoni	\$1M in 2018, \$3M in 2019 and each yr thereafter from bond proceeds to the DNR to transfer to the U of MN Bd of Regents for the Natural Resources Research Institute for ops, maintenance, research and staff for applied research in water and other key areas
2411	Lueck	2031	<i>Ruud</i>	\$3M gen fund to DNR for U's MN Aquatic Invasive Species Research Center for solutions to reduce aquatic invasive species impacts
1752	Torkelson	1542	Dziedzic	establishes riparian-buffer compensation program ; \$11K FY18, \$434K FY19 from general fund to DOR for administration; \$286K to DOR base budget for FY20-21
1711	Loonan	1368	Pratt	modifies the definition of agricultural purpose to include local conservation programs
2400	P Anderson	2160	Westrom	establishes riparian-buffer compensation program ; \$11K FY18, \$434K FY19 from general fund to DOR for administration; \$286K to DOR base budget for FY20-21
2417	Hamilton	2114	<i>Weber</i>	\$5M gen fund to MPCA for grants to delegated counties to administer the county feedlot program
1483	B Johnson	865	<i>Ruud</i>	modifies blaze orange hunting requirements to allow for blaze pink; amended in the Senate to become the OMNIBUS ENVIRONMENT POLICY BILL
2384	Hausman, <i>Fischer, C Johnson</i>	2154	Pappas	Capital Investment bill
2432	C Johnson	None	None	affected party may ask SWCD to make a determination on whether an alternative practice would meet the applicable buffer requirements ; 90 day lead time needed to avoid noncompliance findings
2446	Newberger	None	None	\$250K gen fund to DNR to compensate hydroelectric facilities impacted by Little Rock Lake-Sartell Pool drawdown project

MN NEWS

WATER ACTIONS

- Strib: [A land of 10,000 lakes for sure. But how about springs?](#)
- U of MN: [U of M President Kaler and other leaders present priorities to Legislature](#); priorities include expanding the MnDRIVE (Minnesota's Discovery, Research and Innovation Economy) investment to include additional initiatives to solve Minnesota's challenges in the many areas, including improving water quality, and advancing applied research activities at the Natural Resources Research Institute (NRRI), including minerals, mining and water
- DL Online: ['No water, no life': Smithsonian Water/Ways exhibit opens at Becker County Museum](#)
- Walker Pilot Independent: [What is clean water worth for northern Minnesota communities?](#)

- YouTube: [Mississippi River Basin Watershed Support Group](#); this Iowa Motion Picture Association Award Winner offers some droll humor about pollution
- Whapeton-Breckenridge Daily News: [County board hears update on watershed](#)
- Post-Bulletin: [Greenspace: Learn more about rain gardens at three upcoming workshops](#)
- Crookston Times: [International Water Institute - Dayton proclaims March 12-18 River Watch Week' in Minnesota; River Watch Forum March 15 at UMC](#)
- Strib: [Environmentalists decry bills advanced by GOP lawmakers](#)
- Pioneer Press: [Clean-water agency moving into industrial site in St. Paul's Midway](#)
- Governor Dayton's Appointments to the Board of Water and Soil Resources:
 - Patty Acomb– Minnetonka, Metropolitan City Elected Official, reappointment
 - Tom Loveall – Winnebago, County Commissioner, reappointment
 - Tom Schulz – Sebeka, Soil and Water Conservation District Supervisor, reappointment
 - Rich Sve – Two Harbors, County Commissioner, replacing Brian Napstad's County Commissioner vacancy
 - Gerald Van Amburg – Moorhead, sitting citizen member appointed as Chair Designee to replace Brian Napstad, as chairperson
 - Paige Winebarger – Bloomington, Citizen Member, reappointment

WATER BUSINESSES

- Ethisphere: [World's Most Ethical Companies® Honorees](#); MN water-tech businesses 3M and Ecolab make the list

SURFACE WATER/STORMWATER

- BWSR: [Local Road Wetland Replacement Program: Notification of Wetland Bank Service Area Opening](#)
- Waseca County News: [Lakes report from MSU reveals high phosphorus levels](#); in Clear Lake, 53 % of the total P entered from the watershed and 47% from internal loading; an estimated 66% of Loon Lake's annual total P was from internal loading
- U of MN: ["Super sponge" promises effective toxic clean-up of lakes and more](#)
- Pine Journal: [New options for river that dumps red clay into Lake Superior](#)
- Post Bulletin: [John Weiss: New problems on the water front](#)
- LMC: [Stormwater Reuse Bill Heard in House and Senate](#)
- LMC: [Governor Signs Bill Providing Emergency Cash for Local Road Wetland Banks](#)
- LMC: [DNR Releases New Shoreland Model Ordinance](#)
- Worthington Daily Globe: [Watershed District to invest in more floating biohavens](#)
- Pioneer Press: [Invasive silver carp found for the first time in St. Croix River](#); MPR: [DNR: Invasive silver carp found for first time in St. Croix River](#); Strib: [The first silver carp, the 'flying' invasive fish, is captured in St. Croix](#)
- Mankato Free Press: [Mankato OKs nearly \\$500,000 to study erosion, drainage](#); here are 2 of the erosion prone areas, with the City wellfield in the area shown at right



GREAT LAKES

- MLive: [Trump slashes Great Lakes funding by 97 percent in early budget plan](#); see the embedded spreadsheet for a full list of proposed EPA budget cuts (the White House released its proposed budget to Congress on 3/16; see article in National Section, below); Strib: [Trump seeks elimination of Great Lakes restoration funding](#); MPR: [Trump seeks elimination of Great Lakes restoration funding](#); Strib: [Walker, Trump at odds over defunding of Great Lakes program](#)
- MPR: [Exploring the death, and life, of the Great Lakes](#) [short article + a link to a 49 min interview with author Dan Egan]
- E&E News: [Great Lakes communities gear up to battle Trump's budget](#)

WATER SUPPLY

- Congressional Research Service: [Safe Drinking Water Act \(SDWA\): A Summary of the Act and Its Major Requirements](#); in MN, the SDWA is administered by MDH
- Waseca County News: [Study finds small public wells in Minnesota have viruses, bacteria](#); Brainerd Dispatch: [Study finds small public wells in Minnesota have viruses, bacteria](#); Pioneer Press: [Viruses, bacteria in MN drinking water wells? Maybe, but what does it mean?](#)
- MDH: [Minnesota Well Management News](#); includes articles on proposed fee increases, well sealing grant awards, locations of artesian wells in MN, and more
- WCCO: [Boil Advisory Issued After Another Water Outage In Blaine](#)

WASTEWATER

- Echo Press: [Cities object to high sewage treatment plant costs](#); Mesabi Daily News: [Cities object to high sewage treatment plant costs](#)

ENERGY-WATER NEXUS

- Midwest Energy Research Consortium: [Strategic Roadmap on the Energy Water Nexus](#)

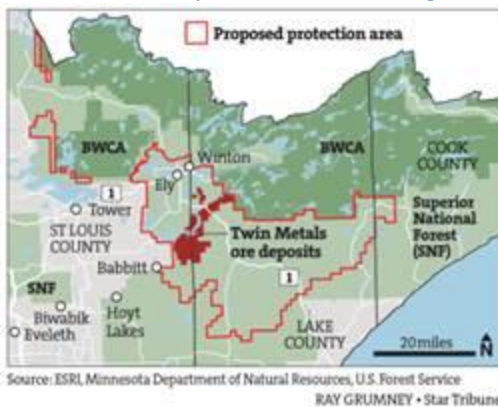
AG & WATER

- West Central Tribune: [Buffer law draws questions from landowners in Renville County](#)
- Brownfield: [Minnesota Soybean Leader is Excited About Ag Research](#)
- AgWeek: [Minnesota watershed district talks tile intakes](#)
- Jamestown Sun: [Taking a long-term view supporters say tile drainage still makes sense](#)
- AgriNews: [What can the Root River teach us about erosion?](#)

- Journal of Soil and Water Conservation: [Looking for agricultural water quality protection practices: Saturated buffers](#)
- Science Daily: [What makes farmers try new practices?](#)
- House Public Information Services: [Jumbo shrimp farms touted as new agriculture industry](#)
- The News and Observer: [Dayton: Minnesota on track to meet new buffer requirements](#); Pioneer Press: [Buffer strips ahead of deadline](#); [Mark Dayton opposes big changes to law](#); MPR: [State on track to meet new buffer requirements](#); Strib: [Dayton: Minnesota on track to meet new buffer requirements](#) and [In advance of fight over water quality, Gov. Mark Dayton touts his signature initiative](#); Governor Dayton's Office: [Minnesota is Well On its Way to Full Compliance with Statewide, Bipartisan Water Quality Effort](#); Albert Lea Tribune: [State on track to meet buffer requirements](#)

EXTRACTIVE INDUSTRIES

- Strib: [Comment period on restricting mining near BWCA extended to August](#)



- MPR: [Divide over mining near BWCA on display at public meeting](#); Duluth News Tribune: [Duluth hearing draws supporters, critics of proposed mining ban near BWCAW](#)
- Duluth News Tribune: [Twin Metals meeting may end up moot, but big crowd expected](#) and Pioneer Press: [Twin Metals public hearing could be big, but Trump might make it moot](#); MPR: [Pro- and anti-mining forces prepare for Duluth meeting](#); Newsday: [Agencies to take comments on plan for Minnesota mining](#); Strib: [Agencies to take comments on plan for Minnesota mining](#) and [Hundreds expected tonight at Duluth public hearing on mining near BWCA](#)
- Save the Boundary Waters: [New poll: Minnesotans support mining, but not near the Boundary Waters](#); see the FabrizioWard polling memo [Sulfide Ore Copper Mining Near the Boundary Waters](#) or the more detailed [summary deck](#)

OPINIONS

- Pioneer Press: [Real World Economics: Pollution can't be a local concern](#)
- Strib: [Plastic bags: It's time to bag these ubiquitous, deadly pollutants](#)

BEYOND MINNESOTA

REGIONAL

- Congressman Brian Fitzpatrick: [Fitzpatrick Fights for Defense Dept. Funding of Water Contamination Clean Up, Health Study](#); firefighting foam used on military bases has contaminated public and private wells with the perfluorinated compounds (PFCs) perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS)

- The Columbus Dispatch: [Water customers worried about lead lines can check Columbus' map](#); Strib: [Michigan governor will drop lead limit below federal cap](#)
- Public News Service: [Another Wisconsin Groundwater-Protection Measure Dropped](#); Strib: [Wisconsin conservationists, farmers clash at hearing](#)
- NPR: [Kentucky Community Hopes Trump Infrastructure Plan Will Fix Water System](#)
- phys.org: [Study quantifies effect of 'legacy phosphorus' in reduced water quality](#); "Solutions should be focused on stopping phosphorus from going onto the landscape or mining the excess amount that is already built up"
- Strib: [Ethanol spills in Iowa as train cars pulled from creek](#)
- Strib: [Great Lakes fund has aided Ohio's algae fight, river cleanup](#); The Washington Post: [Republicans join Democrats against Trump's Great Lakes cuts](#)
- AZ Daily Sun: [Uranium mine deals with excess water](#)

NATIONAL

- NPR: [How To Make Farmers Love Cover Crops? Pay Them](#)
- Governing: [To Speed Up Infrastructure Projects, Trump Revisits Environmental Regs](#)
- Bloomberg BNA: [Water Systems Facing Unique Cyberthreats](#)
- Reuters: [Trump budget plan cuts USDA food, rural water funding](#); "The proposal would save \$498 million by eliminating a rural water and wastewater loan and grant program, which the White House proposal said was duplicative. The program helps fund clean water and sewer systems in communities with less than 10,000 people."
- New York Times: [Who Wins and Loses in Trump's Proposed Budget](#); Pioneer Press: [Winners and losers in Trump's first budget plan](#); Vox: [Trump's budget cripples EPA enforcement. This is bad for drinking water](#); Strib: [State and metro officials say that federal budget cuts would have big impact](#); Strib: [Trump budget would gut science, environment programs](#)
- Circle of Blue: [Trump Proposal to Fix U.S. Water Infrastructure Invites Large Role for Private Investors](#)
- E&E News: [Cuts could complicate flood insurance reauthorization](#)
- Strib: [Sack cartoon: Clean water, the musical](#)

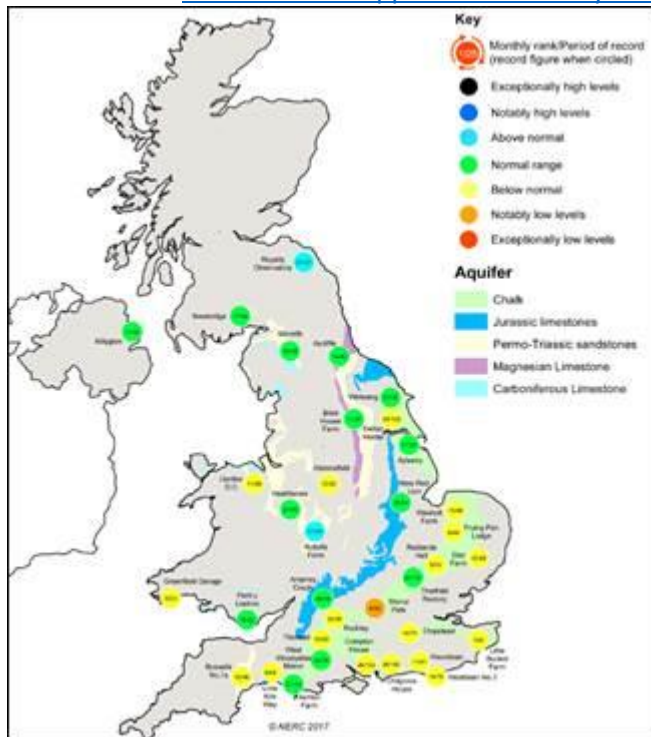


STEVE SACK 6/14/2017 STAR TRIBUNE

GLOBAL

- Winnipeg Free Press: [Proposed legislation calls for fewer inspections of drinking water infrastructure](#)
- Reuters: [Research for drought-resistant crops gets boost as U.S. joins seeds treaty](#)

- The Guardian: [New Zealand river granted same legal rights as human being](#); for 140 yrs, the local Māori tribe has fought for the recognition of the Whanganui River (the 3rd largest in New Zealand) as an ancestor
- The Guardian: [Groundwater supplies low after dry winter](#)



MEETINGS

STORMWATER REUSE STAKEHOLDERS

MDH is leading an interagency workgroup to assess the viability of water reuse projects (see [website](#) for project details and the mid-project update). As part of this effort, a series of 4 workshops is planned to gather stakeholder input. At the 3rd workshop held this week, stakeholders discussed risk management, wastewater/graywater reuse, the plumbing code, and liability issues. Additionally, MDH staff presented information about health risk management and reuse, including the need to assess hazards and exposures, using a consistent approach for each water source, adjusting for site specific conditions, and implementing good design practices, source controls, and exposure controls.

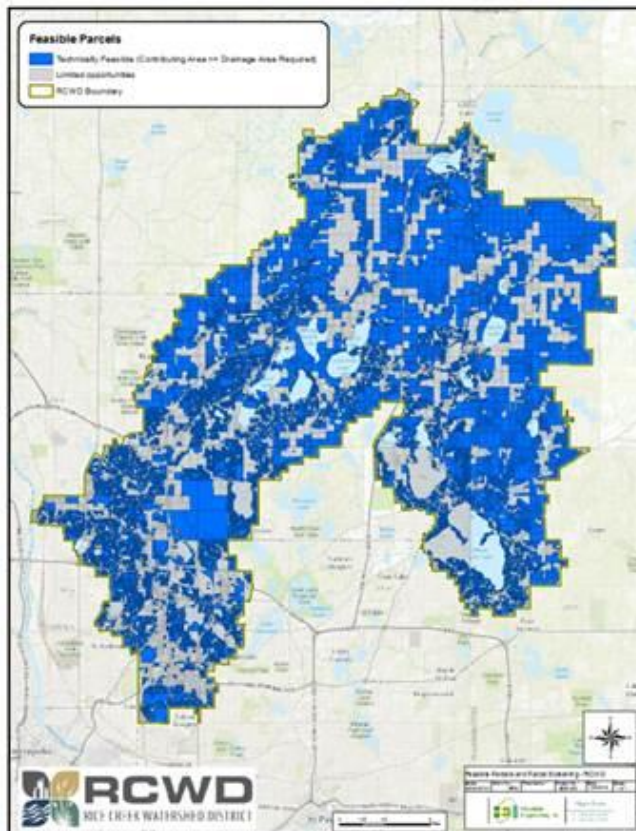
MAWSAC TAC

Created by the MN Legislature, the Water Supply Technical Advisory Committee (TAC) provides scientific and engineering expertise to inform the work of the Metropolitan Area Water Supply Advisory Committee (MAWSAC). The TAC formed in March 2016 and holds regular meetings to discuss technical issues facing metro water suppliers. Their current task is to determine what technical studies and analyses are needed to improve water supply planning. The broad range of technical needs includes: groundwater recharge, water availability, reuse, effects of climate change on water supplies – especially dealing with multi-year droughts, the quality of water in different source areas, improving use efficiency, groundwater-surface water interactions, and emergency responses to infrastructure or software failures. Three themes emerged from their discussion: (1) optimizing access to and use and maintenance of existing tools and data, (2) analyzing and interpreting conditions at both city and sub-

regional scales so utilities' effects on each other can be understood, and (3) identifying primary vulnerabilities so solutions can be developed in advance of a crisis.

ADVANCING STORMWATER REUSE

With funding from a BWSR CWF grant, the Rice Creek Watershed District developed a methodology to determine optimal sites for stormwater reuse that would thereby diminish the need for groundwater irrigation wells. To select the planning criteria used in the methodology, a comprehensive literature search was conducted and municipalities within the watershed district were surveyed; maintain a 3' separation between the base of the collection system and the top of the water table was one important criteria. Once the criteria were set, GIS data was used to identify parcels in the district where stormwater reuse is technically feasible. The bright blue parcels in the figure below show where there is enough drainage area to produce the needed supply of stormwater married with sufficient green space to create the demand. The top 11 sites, based on the greatest offset of groundwater, included golf courses, corporate campuses and public/institutional campuses; 2 of these sites have already started reusing stormwater. Although this tool targets groundwater conservation, it can also be used to target pollutant reductions. The cost and sizes of ponds can be estimated with the tool. The methodology is not a model; it requires manual calculations and geoprocessing to address site-specific conditions. An unexpected result of the project was the adoption of a policy by the RCWD Board to financially support cost-effective projects that convert groundwater turf irrigators into surface water irrigators. Read the entire report here: [The Stormwater Reuse for Irrigation Assessment Methodology](#). This methodology can be applied anywhere in the state, but with some additional funding, a GIS toolbox could be created so local users can easily customize the tool so they can apply their own data to the methodology.



REPORTS

STATE OF MN WATER

- DNR: Stream Flow Report – discontinued until spring
- National Drought Mitigation Center: [3/14/17 Drought Monitor](#)

CHEMICALS OF EMERGING CONCERN IN RIVERS

Scientists from MPCA, the U of St. Thomas, and MDH published [Pharmaceuticals and Chemicals of Concern in Rivers: Occurrence and Biological Effects](#) in January 2017. Past research has shown that pharmaceuticals and personal care products (PPCPs) and other endocrine active compounds are present in MN's lakes ([Pharmaceuticals and Endocrine Active Chemicals in Minnesota Lakes](#); 5/13). Though these unregulated contaminants of emerging concern (CECs) are typically detected at only part per trillion (ppt) concentrations, other studies are showing that some that several of these CECs negatively affect aquatic life at very low levels. The January river study was designed to expand knowledge about the extent of CECs in rivers and streams across MN and it looked at CEC effects on the genetic makeup of aquatic organisms. Water was collected from 50 randomly selected sites that represented all 3 of MN's ecoregions, as well as large and small order streams. The samples were analyzed for 146 CECs.

The study found that 58 of the 146 chemicals were found and almost every site had at least 1 compound present (only Pike River in NE MN had no detections). The pharmaceutical iopamidol, an X-ray contrast agent, was the compound most frequently detected, found at 78% of the locations sampled. The antidepressants sertraline, amitriptyline, and fluoxetine were detected in water from 48%, 44%, and 10% of the locations, respectively. The antibiotics sulfamethoxazole and erythromycin were detected in water at 24% and 14% of the locations, respectively. Metformin, a medication used to treat type II diabetes; triamterene, a diuretic; and carbamazepine, an anticonvulsive medicine, were detected at 18%, 16%, and 14% of the locations, respectively. The insect repellent DEET, the plastic component bisphenol A, the corrosion inhibitor benzotriazole, and benzotriazole breakdown products were also widespread.

The biological effect of the contaminants detected in water samples was evaluated in two ways: comparing detected contaminants with compiled toxicological data and by conducting laboratory effect studies to see which contaminants behaved like estrogen and how the contaminants activated fish genes. This information can then be used to predict how a contaminant might adversely affect reproduction, behavior, or other metabolic functions. The effect studies showed that 5 of the 10 water samples exhibited low estrogenic activity. The genetic studies showed that that CECs may impact genes associated with reproduction, development, growth, and tumor formation. In general, there was agreement between the predictions made by the ToxCast database and the laboratory effects studies.

The river findings are generally consistent with the lake study findings that discovered CECs in most of the lakes sampled, including lakes lacking obvious contamination sources. Statistical analyses to evaluate the potential sources of the detected CECs were not completed as part of this study. This study did not distinguish between human, plant, animal and microbial sources of these CECs. Additionally, the synergistic effects of chemical mixtures is unknown.

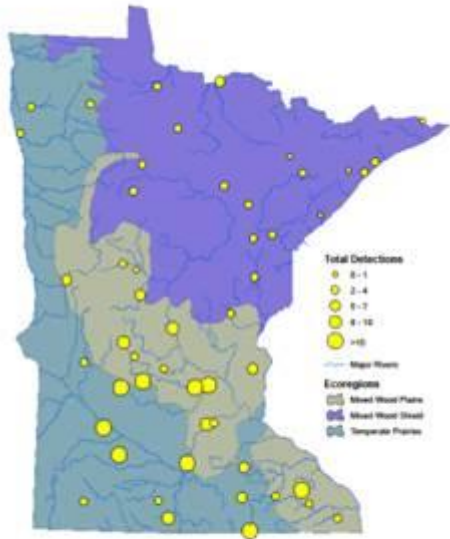


Figure 3. Number of chemicals detected at each sampling location.

UPCOMING EVENTS

- Feb 25-Apr 9: **Smithsonian Water/Ways and MN We Are Water exhibits** on display in Detroit Lakes; the grand opening is from 10-11 on 2/25 at the Becker County Historical Society; additional activities will be posted [here](#)
- Mar 19-25: [National Water Week](#)
- Mar 20: **MnDRIVE 2017 Research Symposium – Advancing Industry, Conserving the Environment**; 1-5 pm, U of MN – Walter Library Digital Technology Center; [register here](#)
- Mar 22: Ag Utilization Research Institute **New Uses Innovation Forum**; 8 am to 5 pm; Crowne Plaza (3131 Campus Drive, Plymouth); \$55; info and registration link [here](#)
- Mar 22-23: **19th Joint Annual Conference of the Red River Watershed Management Board and Red River Basin Flood Damage Reduction Work Group**; Courtyard by Marriott in Moorhead; [agenda](#); register [here](#)
- Mar 23: **Shared Water, Shared Responsibility: Engaging Minnesota’s Communities, Students, and Policy-Makers**; co-sponsored by the U of MN’s Humphrey School of Public Affairs’ Center for Science, Technology, and Environmental Policy and the U of MN’s Water Resources Center; 5:15 p.m.—reception & poster session in Humphrey Atrium; 6:30 p.m.—panel discussion in Cowles Auditorium (301 19th Ave S); event, livestreaming and registration details [here](#); free, but register is required by March 15th
- Mar 27: **LWC Meeting**, 6-8 pm, State Office Building basement hearing room; agenda [here](#)
- Mar 27: **Agricultural Drainage Workshop**; Best Western Hotel, Willmar; \$30; register [here](#)
- Mar 27: **Industry/Academia Roundtable on Water**; 8:30 to 11:30 a.m.; Thomas H. Swain Room-U of MN McNamara Alumni Center (200 Oak St, Minneapolis), more info to come
- Mar 29-31: **Design-Build for Water/Wastewater Conference**; Minneapolis Convention Center; registration costs vary; agenda and registration info [here](#)
- Mar 30: Rain Bird’s **MN Efficient Irrigation Summit** re: water-efficiency information and cost-effective retrofit and upgrade solutions for municipalities, with product fair; U of M, McNamara Alumni Center (200 SE Oak St., Minneapolis); 9am-4 pm; \$10 (includes lunch); register [here](#) by March 10th

- Apr 10-12: International Biomass Conference & Expo; Minneapolis Convention Center; more info [here](#)
- Apr 18: DEED **MN Water Technology Export Roundtable: The Water Energy Nexus**, 10:00 a.m. to 1:00 p.m. @ Aeration Industries (4100 Peavey Road, Chaska) \$30 (includes lunch); register [here](#)
- Apr 19: **Water Action Day**; 8-4 pm meet with legislators, rotunda rally @ 1 pm; more info [here](#)
- Apr 24: **LWC Meeting**, 6-8 pm, State Office Building basement hearing room; details to come
- Apr 25: Freshwater Society Moos Family Lecture: **The Death and Life of the Great Lakes** by Dan Eagan; St Paul Student Center; reception at 5:30 pm & lecture at 7:00 pm; free but registration is required [here](#)
- Apr 26: MGWA Spring Workshop: **Management, Analysis, and Optimization of Groundwater Data**; 8 am - 4:30 pm; U of MN Continuing Education and Conference Center (1890 Buford Ave, St Paul); \$145 member/\$195 nonmember; register [here](#)
- May 5: **N & E Metro Groundwater Management Area Project Advisory Team Meeting**; 8:30-11:30; DNR Central Office, 500 Lafayette Road, St. Paul,
- May 9: Minnesota Day at the **National Climate Adaptation Forum**; registration can be found [here](#)
- May 18: **MN River Congress**; Redwood Falls Community Center; details to come
- Aug 7-9: **WaterWorks! Drinking Water Institute for Educators**; Lakeville; details [here](#)