

Weekly LWC Update 2-10-17

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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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LEGISLATURE

COMMITTEES ACTIVITIES THIS WEEK

In the Senate:

- The Ag, Rural Development and Housing Policy Committee heard [SF315](#), a bill to fund upgrades to MDA's laboratory. It was passed and re-referred to the Ag, Rural Development and Housing Finance Committee.
- The Environment and Natural Resources Finance Committee finished receiving the overview of MPCA's programs and budget.
- The Environment and Natural Resources Policy and Legacy Finance Committee heard and overview of the BWSR-DNR-MPCA [report](#) about the potential to assume the federal 404 wetland program responsibilities. Read the report's [Executive Summary](#) or get more background on the issue in this [presentation](#).

In the House:

- The Ag Policy committee had a presentation from Land 'O Lakes about their precision agriculture initiatives, including the Agren software program to assist farmers in making conservation decisions, designing practices, and estimating pollutant load reductions. They also heard from the MN Corn Grower's Assoc. about their efforts to team with BWSR and the U of MN to develop alternative practices for buffers.
- The Capital Investment Committee received an overview of the Governor's bonding proposal and heard testimony on HF892; no action was taken on [HF892](#). Read more in this House Public Information Services article: [Governor's bonding plan shared with capital investment committee](#).
- The Environment and Natural Resources Policy and Finance Committee heard the Outdoor Heritage Fund appropriations bill [HF710](#), which passed with a technical amendment and an amendment removing the requirement for hunting where easements are granted. The bill now moves to the Legacy Committee. Concerns were expressed about the need to reduce land acquisitions and increase restoration and enhancement, whether the state is keeping up with prairie burns, and whether the state is getting its money's worth on easements. Read more in this House Public Information Services article: [Environment committee approves \\$103.9 million Outdoor Heritage Fund bill](#). Later, they heard an overview of MN's iron ore industry. Concerns

were expressed about standards, the cost of new rules, and the time-consuming permit process. Finally, they heard about BWSR’s wetland replacement program for roads and received testimony on [HF434](#). The bill was passed and re-referred to Ways and Means.

- The Job Growth and Energy Affordability Policy and Finance Committee heard testimony about Morris’ need for a new water treatment facility to remove chlorides in order to meet wastewater discharge limitations to the Pomme de Terre River; [HF649](#) was laid over for possible inclusion in an omnibus bill.

WATER BILLS

Below are the water-related bills introduced for the week ending 2/10/17. The gold shaded cells are those bills introduced this week that are companions to bills introduced previously. Click on the File # hyperlinks for more details. As of 2/10/17, 14 of 1,911 introduced bills (9%) are water-related. *Italicized* authors are former LWC members.

House File	Chief/LWC Authors	Senate File	Chief/LWC Authors	Description
353	Cornish	635	Rosen	\$3.699M bond proceeds to PFA for grant to Waldorf for wastewater, water treatment, and stormwater drainage systems
468	Cornish	627	Rosen	\$101K gen fund to DEED for grant to reimburse Madelia for infrastructure repair costs from 1/16 fire
509	Gunther	632	Rosen	\$6M bond proceeds to PFA for grant to Winnebago for drinking water, sanitary and storm sewer system upgrades in the NW utility improvement area
642	Urdahl	684	<i>Dahms</i>	Water Infrastructure Funding program allows grants up to \$5M/project or \$20K/existing connection; PSIG grants to LGUs have max of \$7M to cover up to 80% of project costs; \$167M bond proceeds to PFA for water infrastructure grants , of which \$25M is to match federal clean water and drinking water revolving funds and of which \$80M is for grants to eligible municipalities for the water infrastructure funding program and \$55M is for wastewater projects and \$25M is for drinking water projects and \$62M is for PSIG grants
702	O' Driscoll	695	Newman	provides for expert review of agency actions and prohibits use of unadopted rules
708	Cornish	661	Rosen	\$13.230M from bond proceeds to DEED for a grant to St James for stormwater, wastewater, water and other infrastructure improvements
717	Green, <i>Hamilton</i>	643	Johnson, <i>Ruud</i>	\$__ 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

727	Hilstrom	716	Rest	regulates chemicals of high concern in children's products
766	Swedzinski	672	<i>Ruud</i>	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
779	Kiel	621	Johnson	\$5.3M bond proceeds to PFA for East Grand Forks to connect wastewater system to Grand Forks ND
821	Loonan	701	Hall	\$960K gen fund to BWSR for grant to Lower MN River WD to defray dredge site O & M cost
829	Hornstine	641	Dibble	Established sewer availability charges stakeholder group
833	Grossell	None	None	\$850K bond proceeds to PFA for grant to Clearbrook for wastewater infrastructure improvements
867	Hanson	None	None	MDA & MDH provide bond-funded grants to private domestic well owners to mitigate nitrate or pesticide contamination via upgrading or replacing wells, installing water treatment systems and capping wells; bonds repaid via fertilizer and pesticide fees and other revenues pledged for the bond payments; emergency bottled water provided
888	Fabian	723	Ingebrigsten	Appropriates funds for environment and natural resources programs and modifies policy provisions
891	Gunther	708	<i>Ruud</i>	Appropriates Clean Water Funds
None	None	717	B Anderson	MPCA must review wastewater treatment projects receiving financial assistance to ID wastewater discharge impact on geographic aquifer; definitions added
966	Fabian	724	Johnson	\$627K bond proceeds to DEED for a grant to Thief River Falls for water, sewer, electrical, & road infrastructure along 1st St W of Westview Ave
1003	Lueck	737	Weber, <i>Ruud</i>	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
902	Fabian	740	Johnson	\$2.5M bond proceeds to DNR to repair the Lake Bronson dam

975	Franke	755	Schoen	\$695K bond proceeds to BWSR for a grant to S St Paul/IGH/W St Paul to improve Seidl Lake's water quality, including a stormwater lift station to discharge excess stormwater to the city's stormwater system to mitigate fluctuating lake levels/
None	None	761	Dahms	\$500K bond proceeds to BWSR for grant to Lac qui Parle Yellow Bank WD for engineering analysis for 2 floodwater retention projects
None	None	769	Kiffmeyer	Agencies can't adopt rules without legislative approval
895	Hamilton	780	Westrom	modifies ag provisions & makes appropriations
897	Hilstrom	795	Eaton	requires pharmacies to maintain collection boxes for disposal of legend drugs as pharmaceutical waste
790	Gruenhagen	822	Newman, Chamberlain	Agencies must submit all contested case hearings to the Office of Administrative Hearings for disposition
None	None	835	Draheim	buffer law compliance practices must use only seed mixes grown & processed in MN
1004	P Anderson	None	None	revises buffer and buffer map requirements
1016	Hausman	None	None	establishes certified salt applicator program, limits liability, & authorizes rulemaking
1041	Marquart	None	None	PFA shall provide \$15M more for a PSIG grant to an entity in a compliance schedule & on the PPL that requires advanced tertiary treatment via MBRs to achieve 0.08 ppm effluent limits
1051	Backer	None	None	DNR must issue a permit to the Bois de Sioux WD to maintain Big Lake at 1,073' from 5/1 to 10/1 and draw the lake down to 1,072 before it freezes
1054	Layman	None	None	\$3M bond proceeds to PFA for grant to Deer River for wastewater and water improvements
1058	Hamilton	None	None	\$100K gen fund to LWC to convene independent scientific reviews of MPCA regulatory decisions

LEGISLATIVE PLATFORMS

The Association of MN Counties has adopted their [2017 Legislative Priorities](#) and [2017 Legislative Policy Positions](#). Twenty-five recommendations in 11 water-related policy categories are listed on pages 25 and 26. AMC adopted 2 water-related legislative priorities:

- “AMC supports ongoing state funding for counties that opt to implement and enforce the requirements of the Minnesota buffer law.”
- “AMC supports the immediate need for short-term cash funding for the Local Road Wetland Replacement Program (LRWRP) and long-term continued funding of the program.”

The League of MN Cities has adopted their [2017 Policy Priorities](#), which includes bonding and water policy and funding. The detailed [2017 City Policies](#) contain numerous water-related recommendations, with the key areas being:

- Service Delivery-25. Private Well Drilling
- SD-26. Sustainable Development
- SD-61. Environmental Protection
- SD-62. Municipal Public Water Supplies
- SD-63. Impaired Waters
- SD-64. Urban Forest Management Funding
- Local Economies-6. Public Infrastructure Utilities
- Fiscal FuturesF-15. Pollution Control Exemption
- FF-21. Local Option Sales Tax and City Revenue Diversification

The MN Association of Watershed Districts has posted their [2017 Legislative Program](#), which supports passage of a Capital Investment Bill and a watershed omnibus bill, addresses several tax issues, and supports the recommendations of the Clean Water Council.

MN NEWS

WATER ACTIONS

- WCCO: [Dayton Seeks 25 Percent Water Quality Improvement By 2025](#); Gov Dayton's Office: [Governor Dayton Announces New Goal to Improve Water Quality in Minnesota 25 Percent by 2025](#); Minnesota Daily: [Gov. Mark Dayton calls for new plan to improve state's water quality](#); Strib: [Dayton challenges state to cut water pollution by 25 percent by 2025](#); MPR: [Dayton proposes new water quality goal without regulations](#); KDAL: [Dayton Introduces Water Quality Plan](#); Post Bulletin: [Dayton aims for 25 percent water quality boost by 2025](#); Duluth News Tribune: [Dayton wants public input on water quality plan](#); KARE 11: [Dayton's clean water vision: 25 by 25](#); Pioneer Press: [Mark Dayton has new clean-water plan — and new approach to farmers](#); KFGO: [Minnesota aims for 25 percent water quality boost](#);
- More from the Morris Town Hall Water Summit: AgriNews: [Water quality a 'wicked problem'](#); Pope County Tribune: [Water Summit attracts local leaders](#); Morris Sun Tribune: [Farmers say others also have impact on water quality](#)
- Walker Pilot Independent: [Gov. Dayton proposes to bolster Minnesota's natural resources and outdoor recreation](#) in his 2017 budget recommendations; Hometown Focus: [Gov. Dayton proposes to bolster Minnesota's natural resources and outdoor recreation](#)
- Pioneer Press: [Blundering Gardener: Adopt a storm drain. Your water will thank you](#)
- cleanwatermn.org: [Recent immigrants become water stewards](#)
- MPCA: [Citizen water monitor goes extra mile for Straight River](#)
- BWSR: [Staying on Track for Success with One Watershed One Plan](#)
- Brainerd Dispatch: [Future of water quality to be discussed](#)
- Governor Dayton's Office: [Governor Dayton Announces "Clean Drinking Water Starts With Me!" Poster Contest](#)
- Audubon: [Water Action Day to be held at Minnesota State Capitol on April 19](#)

SURFACE WATER/STORMWATER

- MPR: [Climate Change in Minnesota: 23 signs](#); remember that increased rain = increased stormwater runoff
- White Bear Press: [DNR declines request for public hearing on protective elevation](#)
- MPR: [Are we eating our fleece jackets? Microfibers are migrating into field and food](#)

- Bismarck Tribune: [Heavy precipitation raises Red River flooding concerns](#) and Strib: [Flood forecasters keeping watch over the Red River](#)
- Post-Bulletin: ["One Watershed" plans are the next wave in environmental protection](#)
- AgWeek: [Attendees voice concern, support for Minnesota's Lake Ocheda plan](#)
- BWSR: [It Starts with Partnership: Conservation in Le Sueur County Lakes Region](#)
- Strib: [Invasive aquatic weed, starry stonewort, creeps across US](#)

WATER SUPPLY

- Water Online: [Copper Contamination In Minnesota Sickens Students](#)
- Strib: [Massive water system about two-thirds complete](#)
- DNR: [New DNR app gives people chance to help with groundwater research](#) and [Hunting for springs is important and enjoyable](#)

WASTEWATER

- Strib: [For fledgling bakery, sewer access fee was big surprise](#)

ENERGY & WATER

- MinnPost: [Amid obstacles, activists envision an audacious plan for Upper St. Anthony Lock and Dam: making it part of a national park](#); the option for hydropower is still on the table

AG & WATER

- Granite Falls Advocate Tribune: [SWROC studying nitrogen pollution reduction](#)
- Osakis Review: [Farmers still furious over buffers](#)
- Prairie Business: [Buffalo hog farm opponents argue permit process was flawed, unfair](#)
- BWSR: [Buffer Program Implementation Update](#)
- Reuters: [Minnesota investigates origin of crop-threatening weed](#); to address the aggressive, herbicide-resistant Palmer amaranth weed which has been found on 30 areas planted in a federal conservation program [*obtaining amaranth-free seed mixes is a concern related to the buffer law implementation*]
- Brownfield: [Dayton says buffer rule handled wrong](#)
- KLGR Midday Farm Show: [MN Ag Commissioner Dave Frederickson](#)
- U of MN Extension: [Learn how to improve cover crop management at workshops](#)

EXTRACTIVE INDUSTRIES

- City Pages: [Lawsuit: Feds sold Superior National Forest land to mining company for way too cheap](#); MinnPost: [Lawsuit against PolyMet land exchange raises potent issue of taxpayers' rights](#)
- MPR: [Dayton speaks out against potential mining near Boundary Waters](#)
- Timberjay: [Nolan asks Trump to halt mineral lease freeze](#) and [Nolan faces pushback on Twin Metals letter](#); alphanews: [Minnesota Democrats Feud Over Mining in the Boundary Waters](#)
- DNR: [State Receives Updated Water Appropriation Permit Application from PolyMet](#)
- Governor Dayton's Office: [Statement from Governor Dayton on Mesabi Metallics](#)

OPINIONS

- Whapeton/Breckenridge Daily News: [A rushed and hasty edict will result in 'muddy waters'](#)

BEYOND MINNESOTA

REGIONAL

- Pittsburg Post-Gazette: [EPA slams state drinking water program](#); EPA says state funding and staffing cuts has significantly reduced public water system inspections and creates a situation with serious public health implications
- USA Today: [Bill to give Milwaukee and other cities options for replacing lead pipes](#)
- New York Times: [New York Changes How It Tests for Lead in Schools' Water, and Finds More Metal](#); study finds pre-stagnation flushing can mask significant lead levels in water
- NPR: [Army Approves Dakota Access Pipeline Route, Paving Way For The Project's Completion](#); MPR: [Dakota Access pipeline construction expected to get go-ahead](#); Strib: [Army to allow completion of Dakota Access oil pipeline](#); Pioneer Press: [How the Army Corps of Engineers wound up in the middle of the Dakota pipeline fight](#); Strib: [Tribe files legal challenge to stall Dakota pipeline as construction begins](#) and [The Latest: Challenge to pipeline finish to be heard Monday](#)
- La Crosse Tribune: [Wisconsin, Minnesota utilities to fund own regulators under Corps of Engineers proposal](#)
- NPR: [Don't Call It Wheat: An Environmentally Friendly Grain Takes Root](#); a new perennial crop "Salish Blue" that has stable genetics and adapts to wet weather is a cross between wheat and its wild cousin, wheat grass
- SF Gate: [Despite deluge, California water regulations aren't going anywhere](#); conservation rules extended for up to 270 days, but the decision will be revisited in May
- Strib: [EPA approves state's phosphorous work-around](#); a WI plan that allows companies to pay fees to fund county runoff-reduction projects in order to delay compliance with strict phosphorous pollution standards
- Strib: [Bill would prohibit fish farming in US Great Lakes waters](#)

NATIONAL

- MPR: [Trump administration lifts its hold on EPA contracts](#) and [GOP-backed measures seek to rein in science used at EPA](#); Congress.gov: [H.R.861 - To terminate the Environmental Protection Agency](#)
- USA Today: [Congress passes first rollback of Obama environmental rule](#); the Senate voted 54-45 to scrap the stream protection rule designed to limit the dumping of mining waste in local waterways
- Strib: [Groups sue to block Trump's order on government regulations](#)
- Science Daily: [Life-cycle assessment study provides detailed look at decentralized water systems](#) and the environmental benefits and trade-offs of water reuse systems for net-zero buildings
- Successful Farming: [New Life for Saline Soil](#); certain perennial plants and planting strategies can help lower soil salinity [*food for thought: if MN road ditches were planted with these species, could that help mitigate chloride contamination?*]

MEETINGS

ENVIRONMENTAL CONGRESS

Governor Dayton launched the 2017 Environmental Congress with opening remarks that:

- acknowledged the inadequacy of MN environmental review regulations to say no to mining

- announced his intent to offer non-regulatory legislation as a call to action to increase, in aggregate, water quality 25% by 2025, a rate faster than the estimated 6-8% improvement expected by 2034, when the Legacy Amendment ends
- declared his plan for more Town Hall meetings in 2017 to gather grass roots input, leading up to a January 2018 Summit from which legislation would be introduced to make more progress on improving water quality
- reminded participants that clean water is a right and a responsibility

Paul Douglas, of weather fame, gave an engaging keynote address about climate. He is a self-proclaimed conservative, businessman and board member of the Evangelical Environmental Network that acknowledges data and facts about climate change. He has co-written a book "[Caring for Creation: The Evangelical's Guide to Climate Change and a Healthy Environment](#)". Mr. Douglas said observations, not models, point to fact that climate change is happening. As a meteorologist, data changed his mind about climate: there has been a significant loss of arctic sea ice, there are more extreme precipitation events and more rainfall, MN has seen 4 separate 1,000-year flood events since 2004, there were 2 "mega" rainfall events (i.e., 6" over 1,000 sq mi in 24 hrs) in 2016; climate extremes of flood and drought are more frequent (aka "weather or water whiplash"), MN's 10 hottest years have been since 1988, oceans are warmer and more acidic, permafrost is thawing, sea level is rising, MN had a 219 day growing season in 2016 (comparable to a north Texas climate), and the number and magnitude of weather disasters are increasing. These symptoms made it harder for him continue being skeptical about climate volatility. These weather disruptions are a new norm that create challenges: too much or too little water, effects on water quality, ecosystem impacts of warming waters, finding new best practices for agriculture, the stress on northern MN forests, the acceleration of invasive species, and more. From his conservative perspective, he believes that if energy markets are allowed to work and be subsidized on a level playing field, then the many clean energy alternatives will create a burgeoning sector for new jobs. MN can attract the best minds so that those jobs are here and that incentivizing small start-ups is key. By supporting this approach, MN will reduce its energy dependencies and increase climate resilience (MN is not leading in resiliency planning). Additionally, there will be opportunities in the marketplace to redesign infrastructure to handle superstorms – from roads to storm sewers to septic systems to agriculture. There are technology trends that are saving money with a lower carbon footprint.

Of the many breakout sessions, one focused on forming a water ethic. Session leaders were Britt Gangness, chief MPCA designer of the "We Are Water" exhibit that is traveling with the Smithsonian Water/Ways exhibit; Mae Davenport, associate professor at the U of MN researching the human dimensions of natural resources and recreation management; and Jennifer Tonko, Program Officer with MN Humanities Center leading the Water/Ways effort. Britt started a discussion of values with this provoking thought: Minnesota has a quality of life that depends on water and Minnesotans have life that depends on the quality of our water. Mae helped participants understand that clean water depends on people; it's not about what to do, but how to do it. Since water quality is a social dilemma, there needs to be more human innovation and collective community action, with people valuing collective good over personal gains. If people don't have an emotional connection to water, they are unlikely to be conservation-oriented. [Greg Page noted at the Morris Town Hall Water Summit that people suffer water injustices unequally and so act differently.] Ethics are shaped by basic values, personal identity, and social norms of behavior that are activated by an awareness of problems and their consequences. People must have a personal sense of responsibility, a perception that individual and collective actions can have a positive impact, and feel empowered to make sustainable choices. Ethics come from being part of a community, having a cultural heritage or wanting to leave a legacy. Her research has shown the importance of social norms, that people can adapt quickly and want to do what's right (vs. what people tell them to do) and that money isn't the only motivator. To go from

ethics to action, people must understand the question, what the consequences are, whether it is personally important, and who is doing something about it. Additional research has led her to understand that a majority of people will take individual responsibility but that a minority will work with others at a community level to protect water. Other researchers have found that to empower people to talk about water with others, there needs to be “emotivation”, where people connect emotionally and inspire responsibility and action. Developing social connections and community attachment builds cooperative community action, even when social norms shift over time. When narratives are community-based, goals and ethics can be collaborative. Jennifer explained how Water/Ways integrated education, engagement and connections and then led an interactive activity so people could share personal stories about their water experiences, their water successes, and cultural practices that led to their water ethic. She encouraged people to think about how they could develop a reciprocal relationship with water, how they could serve water, and what their next action would be to put their ethic in action.

WE ARE WATER

The U of MN held a “Year of Water Action” event to discuss the challenges and opportunities facing MN’s water future and how the U can contribute to solutions. About 90 attendees, comprised of students, staff and the general public were greeted by Neal Mackay in the Dakota language and reminded that this area was named “clear water” due to the clarity of the “*Mne sota*” River and its ability to produce life sustaining wild rice. “*Mne wakon*” means “sacred water” and is a reminder of the First Nation’s belief that water is powerful medicine that gives and takes life and it contains spirits that care for us and which we must care in return.

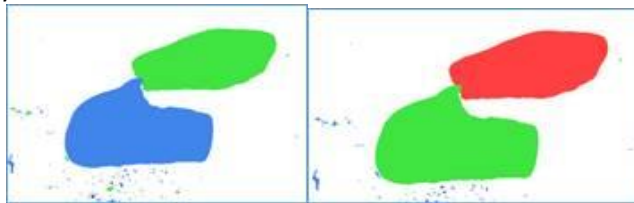
Anna Henderson, the Governor’s Water Advisor, share some of the water challenges facing the state and the Governor’s “25 by 25” call to action (see the first set of news links in the Water Actions section above). She explained that the Governor intend to hold 8 water summits across the state between July and October to hear what people think are the most important water problems where they live. These will be followed by a “confluence” summit next January that identifies legislative needs. She summarized these take-aways from the Morris Water Summit: in some parts of the state, groundwater quality is posing a threat to public health; peer to peer education and mentorship is a way to share successes; consumers are expecting corporate responsibility; a small percentage of the land contributes a disproportionate amount of pollution; and water infrastructure needs more investment.

Glenn Skuta, Watershed Division Manager at the MPCA, shared his view of the “Big Six” water issues that MN has been and is facing and will face:

1. Communication that supports constructive dialogue and collaboration, not blame and polarization; a need to understand that small, cumulative individual actions are important and without personal actions, social responsibility is diluted
2. Nitrate contamination; headway has been made on phosphorus, sediment and bacteria contamination, but nitrates are trending upward and affecting 70 public water supplies and hundreds of private wells
3. Drainage (urban storm sewers, farm tiling, and lost wetlands): a loss of water storage has increased the volume, rate, and pollutant load of runoff; more needs to be done to mimic natural hydrology
4. Farm Bill: incentivize conservation as well as production; think about the ratio of crops for food and fuel; reduce over production and price depression; create systems that don’t trap farmer into practices that that precedence over conservation
5. Infrastructure: the backlog of needed infrastructure investments equals the cost of 4 Viking’s stadiums
6. Water supply, scarcity and sustainability: needs differ across the state

Other important issues that didn't make the top of his list include protecting high quality water, climate change, invasive species, chloride contamination, and contaminants of emerging concern.

Jessica Hellmann, Director of the Institute on the Environment described the knowledge barriers that have led to water being undervalued as an economic asset, such as: its availability and affordability, the disconnection between pollutant sources and pollutant effects, failures to adequately manage land uses, and the externalities that increase social costs. Since water is a "common" property, often managed by others, there is not adequate personal knowledge about its value and vulnerabilities, cost-effective practices, and equitable and effective policies. Research is being conducted at the U to overcome those barriers, such as the Natural Capital Project's assessment of the economic value of clear water as determined by Flickr (a social media) posts: people will drive 56 miles further and spend \$22 more to get to clearer water. Another example is the use of remote sensing data to determine the trophic status of water and to see changes over time, like the deterioration of Upper and Lower Red Lake between 1975 and 2008 (where blue is the cleanest water, followed by green, then red). Go to [U of MN Lake Browser](#) to see your favorite lake.



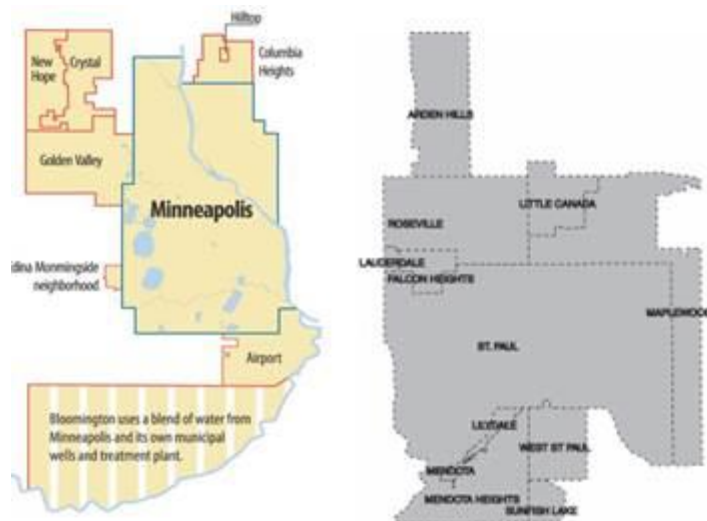
After reviewing the U of MN programs that are involved in addressing MN water issues, she closed with announcement about The U's "Grand Challenges Research Initiative Phase 2" which is offering research opportunities in 2017-18 that will focus on the challenges of [Assuring Clean Water and Sustainable Ecosystems](#) or [Fostering Just and Equitable Communities](#)—or an integration of the two. These challenges are two of the five interrelated Grand Challenges identified through a campus-wide process last year to advance the research goals of [Driving Tomorrow](#). The I on E will announce their role in this challenge next week and will sponsor a Year of Water Action event on March 23rd where good will, knowledge, and science will be joined to provide a good future.



Jennifer Tonko, MN Humanities Center, closed the event by acknowledging that most attendees were interested in and care about water. Each person had personal stories to share and she noted that water engages all our senses and crosses all generations. Even though water is not free, it is cheap, which necessitates a “conscious curation” of water. One storyteller said “You won’t understand [water issues] overnight; even if you read it, you have to reflect on it and make room for it in your life.”

MNRRRA OUTREACH

The Mississippi National River Recreation Area (MNRRRA) is an urban national park that extends for 72 miles, roughly from Dayton to Hastings. Their primary (and newly updated) visitor center is located at the Science Museum of MN, but they also maintain a seasonal presence at the St Anthony Falls Visitor Center and they manage the Coldwater Spring site near Ft Snelling. In 2017, the National Park Service (NPS) expects MNRRRA’s visitor count to top 300,000 (following strict NPS counting protocols). However, when considering that over 9 million visitors utilize MNRRRA and the 80 public parks within the MNRRRA corridor, the NPS and their public park partners have a unique ability to provide outreach about water issues. If a permanent, world-class visitor center is constructed at the St Anthony Falls location, NPS staff say it is possible to expect over 2 million visitors per year at that location alone. This site has nationally significant water, geological, and historical stories to share (read this Strib article: [Riverfront advocates propose new park at Minneapolis lock and dam](#)). Uniquely, both the St Paul and Minneapolis water supply intakes are located within the MNRRRA corridor and the river supplies for over a million people (see areas served below). Through its current Ranger programs and its State of the River Report, NPS already fills an outreach niche and its presence could be significantly expanded with a new visitor center and new partnerships.



REPORTS

STATE OF MN WATER

- DNR: Stream Flow Report – discontinued until spring
- National Drought Mitigation Center: [2/7/17 Drought Monitor](#)

MORRIS TOWN HALL WATER SUMMIT

If you missed it, you can view the [Water Summit](#) on YouTube. In addition to the roughly 500 attendees in Morris, over 100 people watched the live stream at the Duluth, St Paul and Crookston campus. Plus another 1,400 computers accessed the live stream, so over 2,000 people participated in the Summit.

FROM STUMBLER TO STAR

EPA and several partners just released [Effective Utility Management-A Primer for Water and Wastewater Utilities](#). By understanding the Primer's key attributes for successfully managing a water utility (diagramed below) and going through a self-assessment and planning process, utilities can emerge from the "just getting by" operational mode to become an effective utility manager.

The Ten Attributes of Effectively Managed Utilities and Five Keys to Management Success



PRAP

BWSR has published its [2016 Performance Review and Assistance Program](#) report. BWSR completes 4 levels of performance reviews, as follows:

1. Level I is an annual tabulation by BWSR staff of required plans and reports for all 239 local governmental units (LGUs). Level I compliance is below an acceptable level and efforts to improve compliance will continue in 2017. LGUs in full compliance with Level I Performance Standards is 87% and the breakdown by LGU type is:
 - o Soil & Water Conservation Districts: 93% compliance (83/89).
 - o County Water Management: 84% compliance (79/87).
 - o Watershed Districts: 73% compliance (33/45).
 - o Watershed Management Organizations: 78% compliance (14/18)
2. Level II is a routine, interactive review intended to cover all LGUs at least once every 10 years. A Level II review evaluates progress on plan implementation, operational effectiveness, and partner relationships. This review includes assessing compliance with Level II performance standards. This map shows which LGUs have gone through a Level II review since the program started in 2008.

PARTICIPATE IN MN RIVER PLANNING

Public workshops on the on the [MN River Valley Recreation and Conservation Master Plan](#) will be held from 6-8 pm on:

- Wednesday, Feb. 15: Renville County Government Offices, 105 South 5th St., Olivia., room. 117.
- Thursday, Feb. 16: Redwood Falls Community Center, 901 E. Cook St., Redwood Falls, room 2.

The Dept. of Natural Resources is collaborating with Redwood and Renville counties as they seek input on the master plan, which will leverage natural, recreational, cultural, historical and agricultural assets located within two miles either side of the Minnesota River in the two counties.

SOIL MANAGEMENT AND HEALTH

The U has launched a new [website](#) that shows how to balance the economic and environmental benefits of soil management strategies. The site offers research-based resources to help producers improve soil and crop productivity, while minimizing environmental risks, featuring articles and videos in 3 areas:

- Soil properties – includes descriptions of MN soils and how they are formed, the importance of soil structure and the roles of organic matter and soil biology in building structure
- Tillage and soil management – includes resources for reducing soil compaction and erosion, managing crop residue, and evaluating tillage systems
- Cover crops – includes discussions on the benefits of cover crops and resources for selecting, establishing and maintaining them
- Soil fertility - provides a direct link to the U of M Extension [Nutrient management](#) website, which houses current crop fertilizer suggestions and data from the U of MN

The website also includes presentations, an A to Z library to find topics more easily, and links to other University soil websites.

COUNTY-BASED LAND & WATER PROFILES

The Mn Farm Bureau Federation partnered with the [Minnesota Agricultural Water Resource Center](#) to create land and water resources profiles for each county. [Fact sheets](#) are posted on the Farm Bureau web page for farmers and landowners to use as a resource when discussing the importance of farming to local communities. Farmers are encouraged to “Study the information for your county to begin thinking about the importance of farms and water in your area, and how you can share your farm story with others.” Points to consider sharing include:

- What you are doing on your farm to address natural resource concerns
- What role your farm plays in helping maintain a healthy watershed
- How good agronomic practices are important as part of your overall conservation plan



UPCOMING EVENTS

- Jan 7-Feb 19: **Smithsonian Water/Ways and We Are Water MN Exhibits** in the Events Hall of the Commonwealth Theater in Lanesboro, with companion exhibits “Currents of Change” in the Lanesboro Arts Gallery , “Water Brings People Together Over Time” at the Lanesboro Museum, and “Water in Ritual: Baptismal Gown Display” at the Bethlehem Lutheran Church; this group is also hosting many other activities, from stage performances to dinners to lectures; read all the details [here](#) (they span several web pages)
- Feb 13: Rinke Noonan Annual **Drainage and Wetland Conference**; River’s Edge Conference Center in St Cloud, details to come
- Feb 16: U of MN Extension’s **Nitrogen: Minnesota's Grand Challenge and Compelling Opportunity**; \$20, 9:00 – 3:30; Verizon Wireless Center (1 Civic Center Plaza, Mankato); information and registration [here](#)
- Feb 16: **Irrigation Association of Minnesota Annual Meeting**; Freeport Community Center; go [here](#) for contact information to get more information
- Mar 1: **Water Technology Listening Session: A New Path Forward For Water Technology Testing and Pilot Projects**; 11:00am-1:00pm (lunch included); U of MN St Paul Campus, Cargill Building (1500 Gortner Ave; parking validation provided); free, but [registration](#) is required
- Mar 7-9: 33rd Annual **MN Rural Water Association Water & Wastewater Technical Conference**; River's Edge Convention Center in St Cloud; \$280 early registration/\$305 on-site registration; agenda and registration [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; details to come
- Mar 27: **Agricultural Drainage Workshop**; Best Western Willmar; details 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 **Intelligent Use of Water Summit** to help municipalities increase turf irrigation efficiency; U of M; more info to come
- 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)
- Apr 19: **Water Action Day**; 8-4 pm meet with legislators, rotunda rally @ 1 pm; more info [here](#)
- May 9: Minnesota Day at the **National Climate Adaptation Forum**; registration can be found [here](#)
- Aug 7-9: **WaterWorks! Drinking Water Institute for Educators**; Lakeville; details [here](#)