

Weekly LWC Update 5-5-17

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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From which body of surface water or groundwater aquifer do you drink? Who else is using that source? Do you have your own well or do you receive water from a municipal supplier? Does your drinking water meet drinking water quality standards? **May 7-13 is National Drinking Water Week**, a good time to get to know your water a bit better.

Next LWC meeting: June 15, 10:30 am to 12:30 pm, Rm 5 State Office Building.

LEGISLATURE

Below are the bills introduced this week, plus 2 (gold shaded cells) introduced earlier but overlooked. The 2017 session tally now stands at 350 water bills of 5,030 introduced bills (7%).

House File	Chief/LWC Authors	Senate File	Chief/LWC Authors	Description (as introduced, not as amended)
2181	Dehn, Bly	1946	Torres-Ray	MDE & MDH ID lead hazards in public and private K-12 schools and licensed child care centers and test by 9/1/18 and every 10 yrs thereafter; share results and notify parents of exceedences
2631	Erickson	2371	Mathews	\$1.75M bond proceeds to PFA for grant to Milaca for public infrastructure to support expansion of city service area to include ISD 912, to protect the city's drinking water from new wells/treatment systems, and provide water service to areas not served now to facilitate economic development
2637	Hansen	2376	Dibble	when pipeline operations have ceased or easement rights revert back to the landowner, the operator is responsible for removing all abandoned property unless the landowner requests abandonment in place; an operator must submit and the Commissioner of Public Safety must approve the pipeline abandonment plan

In committee this week, the House version of the Environment and Natural Resources Trust fund bill (HF1265), as amended, passed the Ways and Means Committee and will now be put on the House's General Register,

awaiting comparison with SF550. Conference committees for the omnibus environment (HF888), Legacy (HF707), and agriculture (SF780) bills continued adding agreed upon language to their bills. The Senate Capital Investment Committee heard an overview of MPCA and DNR capital needs. The House unveiled their bonding bill (HF892). Read coverage by LMC: [House Unveils Bonding Proposal](#) and the MN House Public Information Services: [House Capital Investment Committee approves \\$600 million bonding plan](#). The following table shows a comparison of the water related projects in all 3 bonding proposals, organized by county.

Water-Related Bonding Proposals Comparison (excluding fishing or water recreation proposals)
(extracted from a compilation made by Governor Dayton's Office)

County	Project	Gov. Dayton's Proposal	Senate Proposal	House Proposal
Big Stone	DNR Flood Mitigation, Ortonville	\$0	1,800,000	1,800,000
Cass	Norway Lake Dam	\$0	\$200,000	\$200,000
Chippewa	Montevideo Flood Mitigation	\$3,500,000	\$0	\$0
Clearwater	Itasca State Park Water and Sewer	\$3,100,000	2,200,000	\$0
Dakota	Lilydale Stormwater Project and Trail Repairs	\$140,000	\$140,000	\$0
Fillmore	Lanesboro Dam	\$0	3,600,000	3,600,000
Goodhue	Dennison Lift Station and Sewer Projects	\$726,000	\$726,000	\$726,000
Goodhue	Red Wing Port Authority	\$800,000	\$800,000	\$800,000
Hennepin	Champlin Mill Pond	\$0	3,300,000	3,300,000
Kittson	Lake Bronson Dam	\$7,000,000	2,500,000	2,500,000
Mower	Cedar River Flood Mitigation	\$0	1,700,000	1,700,000
Nobles	Lewis and Clark Regional Water System	\$11,500,000	11,500,000	\$0
Norman	Halstad Flood Mitigation	\$2,300,000	\$0	\$0
Otter Tail	Pelican Rapids Dam	\$0	\$500,000	\$500,000
Polk	East Grand Forks Sewer Interconnect with Grand Forks	\$0	5,300,000	5,300,000
Ramsey	Department of Agriculture, Lab Capital Equipment	\$2,220,000	2,220,000	\$0
Ramsey	Public Health Lab Capital Equipment	\$2,340,000	2,340,000	\$0

Ramsey	Saint Paul Port Authority Infrastructure	\$3,320,000	1,600,000	1,600,000
Ramsey	Saint Paul Great River Passage Environmental Learning Center	\$3,000,000	\$0	\$0
Redwood	Lake Redwood Reclamation	\$0	7,800,000	\$0
Rock	Blue Mounds Park Water Supply	\$500,000	\$500,000	\$0
Sherburne	Big Lake Sanitary District, Sewer System and Force Main	\$0	1,200,000	1,200,000
St Louis	Saint Louis River Area of Concern	\$25,400,000	12,710,000	12,710,000
St Louis	Little Stone Lake Dam	\$0	\$100,000	\$100,000
St Louis	Duluth Seaway Port Authority	\$5,600,000	1,760,000	1,760,000
Stearns	Melrose Municipal Infrastructure	\$900,000	\$0	\$0
Traverse	Redpath Impoundment, Flood Mitigation	\$700,000	\$0	\$0
Traverse	DNR Flood Mitigation – Browns Valley	\$0	\$750,000	\$750,000
Winona	Whitewater Park Septic Systems	\$400,000	\$400,000	\$0
Winona	Winona Port Authority	\$280,000	\$960,000	\$960,000
Yellow Medicine	Canby Impoundment Dam	\$0	\$200,000	\$200,000
TOTALS		\$73,726,000	\$66,806,000	\$39,706,000
Water projects as a % of all bonding:		4.4	5.7	6.6

Total	Gov. Dayton's Proposal	Senate Proposal	House Proposal
Total GO Bonding Bill	\$1,500,000,000	\$973,000,000	\$600,000,000
Total Cash in Bill	\$168,000,000	\$202,000,000	0
TOTAL	\$1,668,000,000	\$1,175,000,000	\$600,000,000

MN NEWS
WATER ACTIONS

- EQB: Sign up [here](#) to receive email notices about the Governor's 25 by 25 initiative; coming soon on the same webpage will be a registration portal to host a Community Water Meeting this summer

- Growth & Justice: [MN Rural Equity Project identifies legislative priorities](#); including clean water infrastructure
- DNR's MN Conservation Volunteer: [Connected by Water](#)
- Lonsdale News Review: [Lonsdale students learn the importance of clean water](#); "In addition to the poster contest, the fourth-graders toured Lonsdale's water treatment plant on Tuesday...and heard a presentation from Lonsdale Public Works employees...about groundwater and drinking water resources, and the importance of each. This included the water cycle and ground water basics, groundwater movement and soils, aquifer and groundwater pollution, and our water resources and conservation."
- MPCA: [MPCA completes 47 enforcement cases in first quarter of 2017](#); actions in 26 counties resulted in over \$440K in penalties

SURFACE WATER/STORMWATER

- MPCA: Studies: [Good news, bad news for Rum River watershed](#)
- Governor Dayton's Office: [Governor Dayton Authorizes State Disaster Assistance for Kittson County](#)
- Worthington Daily Globe: [Water quality testing under way in Redwood, Cottonwood River watersheds](#); Marshall Independent: [Testing under way in Redwood, Cottonwood watersheds](#)
- DNR: [Minnesota River Valley Master Plan released to public](#)
- International Falls Journal: [Local watershed monitoring focus of events](#)
- DNR: [Minnesota River Valley Master Plan released to public](#); the full plan will be posted on Monday, May 8th at <http://www.mnrivervalleymasterplan.org/>
- MPCA: [Pioneer-Sarah Creek watershed polluted by phosphorus, E. coli bacteria](#); this watershed is in NW Hennepin County
- DNR's MN Conservation Volunteer: [River Revivals](#)
- West Central Tribune: [Construction begins at Marsh Lake](#)
- DNR: [New zebra mussel-sniffing K9s take aim at aquatic invasive species](#); Pioneer Press: [DNR using dogs to sniff out zebra mussels, protect Minnesota's lakes and rivers](#); MPR: [DNR deputizes K-9s to sniff out zebra mussels](#)
- Park Rapids Enterprise: [Tips, resources for spring lakeshore improvements](#)



GREAT LAKES

- InfoSuperior: [2017 Lampricide Treatments and Granular Bayluscide Assessments](#) [If you read last week's meeting summary about "The Death and Life of the Great Lakes", you were reminded about the devastation the sea lamprey caused to lake trout and whitefish populations. The fight against sea lampreys isn't over. The hyperlinked list shows 3 MN locations that will receive treatment for this invasive species in August: the St Louis and Nemadji Rivers in Carlton Co and the Brule River in Cook

County. The Mn effort is tiny compared to efforts throughout the Great Lakes, which shows that once populations of invasive species are established, there can be an ongoing, high cost to control them. The moral of the story: prevention is cheaper than management. FYI, a lampricide and bayluscides are chemicals that target the larvae of lampreys in river systems before they become parasitic adults.]

- Great Lakes Echo: [Clean up of Great Lakes hot spots may get one-year reprieve, but supporters fear longterm cuts](#); “For 20 years it was all studies and no action,” Davis said. “Since the Great Lakes Restoration Initiative, it’s been almost all action. The difference is plain and simple: money.”
- InfoSuperior: [For the Earth and Water Walk 2017](#)
- InfoSuperior: [What Did The Great Lakes Look Like Before Environmental Regulations?](#); in Time magazine’s recent retrospective of Great Lakes photos from 1968, there was this photo with the caption “Beside the deep, clear waters that inspired Longfellow to write ‘By the shore of Gitche Gumee’. a waterfall of taconite tailings from the Reserve Mining Co.’s plant at Silver Bay, Minn. spills into Lake Superior at the rate of 20 million tons a year.” photo by Alfred Eisenstaedt – The LIFE Picture Collection/Getty Images



WATER SUPPLY

- Worthington Daily Globe: [Rock County Rural Water earns recognition](#)
- Echo Press: [Brandon honored for protecting drinking water](#)
- The New Ulm Journal: [Town Talk: Water: Where it comes from, how it is treated](#)
- Worthington Daily Globe: [Funding for water pipeline still top priority](#)

WASTEWATER

- KVVR Moorhead: [Fixing Minnesota’s Polluted Water Sources](#)
- Echo Press: [10 area water treatment plants honored](#)

- MN Rural Water Association:

City Displays Sewer Plugs Awareness Campaign



The city of Cyrus has come up with a creative way to bring awareness to its residents on items not to flush down the sewer.

The city has a display of different types of commonly flushed items to show residents that these items do not break down in the sewer system and can easily plug up and cause problems for the city sewer system. The city has this display in the Community Room at City Hall (shown at left and below). Sometimes a visual of what's actually happening to these products helps residents understand the

importance of not flushing the items in the first place.

Need more flushable education materials? Visit MRWA's website at www.mrwa.com and search "wipes".



AG & WATER

- BWSR: [MN CREP sign-up kicks off May 15, 2017](#)
- Strib: [Xcel's plan for Becker plants is uprooting University of Minnesota research farm](#); agricultural and environmental research under both irrigated and nonirrigated systems is conducted at the Sand Plain Research Farm, which is being put up for sale
- Post-Bulletin: [What's another 1,000 animals?](#)
- AgWeek: [Kandiyohi County postpones decision on buffer law enforcement](#)
- Minnesota Farm Guide: [Officials publish buffer alternative practices](#)

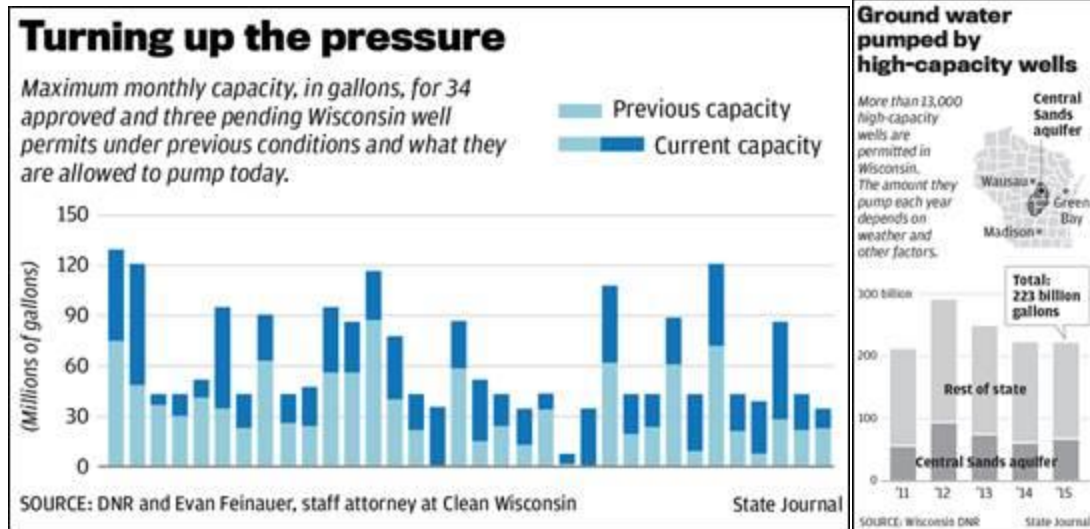
OPINIONS

- Strib: [Major state companies need to disavow Chamber's harmful environmental agenda](#)
- Think Progress: [Minnesota Republicans attempt to skirt environmental review of new tar sands pipelines](#)
- Albert Lea Tribune: [Dan Sparks: Legacy bill funds projects in southern Minnesota](#)
- Whapeton-Breckenridge Daily News: [Defending Richland-Wilkin Counties](#)
- Strib: [Is Minnesota Legislature serious about clean water? Then do these 3 things.](#)
- Grand Forks Herald: [Editorial: Don't let lawmakers gut Minnesota's Legacy Amendment](#)
- Mankato Free Press: [My View: GOP House plan undermines Legacy, outdoors funding](#)
- Strib: [Anderson: Separating fact from fiction about Minnesota's buffer law](#)

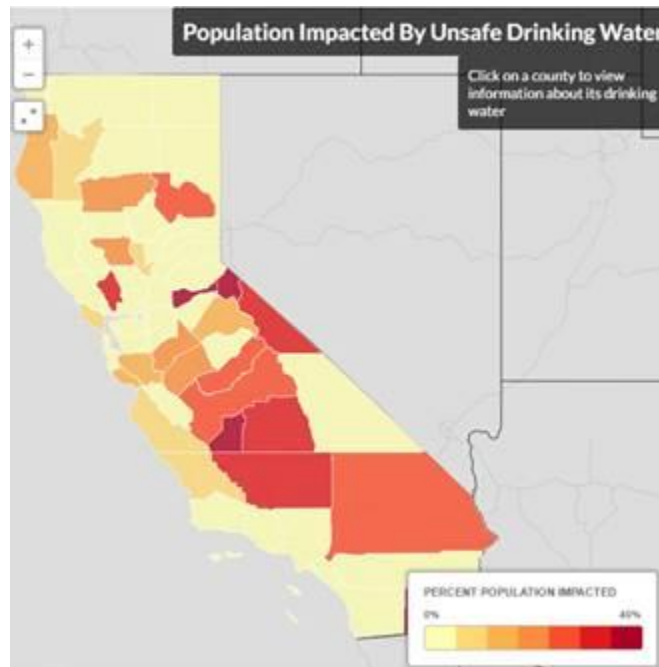
BEYOND MINNESOTA

REGIONAL

- WCCO: [Farms' Thirst For Water Roils Wisconsin's Central Sands](#); Strib: [Farms' thirst for water roils Wisconsin's central sands](#); Wisconsin State Journal: [State OKs pumping of 1 billion gallons from vulnerable aquifers](#); WPR: [State Assembly Sends High-Capacity Well Bill To Governor](#); Strib: [Wisconsin Assembly sends high-cap well bill to Walker](#)



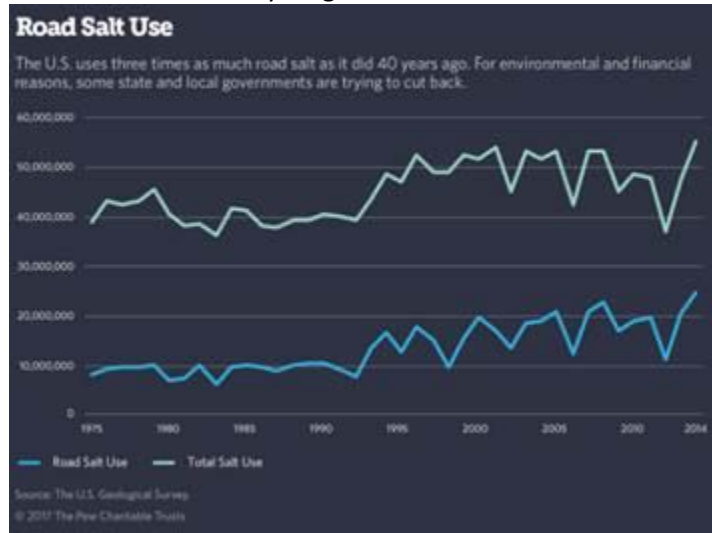
- NBC Bay Area: [Break in California Levee System Could Contaminate Bay Area Drinking Water Supply](#); 13,000 miles of levees are 100 to 200 years old
- WTTW: [9,000 Mussels Deployed to Fight Pollution in DuPage River](#)
- Valley Public Radio: [Drinking Water Is A Human Right, But These Valley Residents Don't Have It](#); CA became the 1st state to declare that clean drinking water is a human right in 2012, but almost 300 communities still can't drink their water



NATIONAL

- Water Deeply: [7 Things I Learned Studying Public Opinion on Water](#)
 1. Americans are concerned about their water, with drinking water pollution concerns topping the list
 2. Weather plays major role in shaping public opinion on water
 3. Water-related problems top climate change concerns, with drought more troubling than floods

4. Water is less partisan than some other environmental issues
 5. Non-white and lower-income Americans are especially worried about water
 6. Many favor water conservation and see it as a civic duty
 7. Americans say they're willing to spend more to fix their waterworks
- Homeland Security News Wire: [Home styles linked to high water use](#)
 - ars technica: [Today, even US water is overly medicated—these scientists want to change that](#)
 - E&E Daily: [Omnibus deal ignores Trump calls for deep energy, enviro cuts](#)
 - NACWA: [Bi-Partisan Bill Introduced to Address Emerging Contaminants, Reflects NACWA Input](#)
 - The Pew Charitable Trust: [Using Cheese, Molasses Brine To Treat Roads With Less Salt](#); the US uses about 3 times more salt now than it did 40 yrs ago



MEETINGS

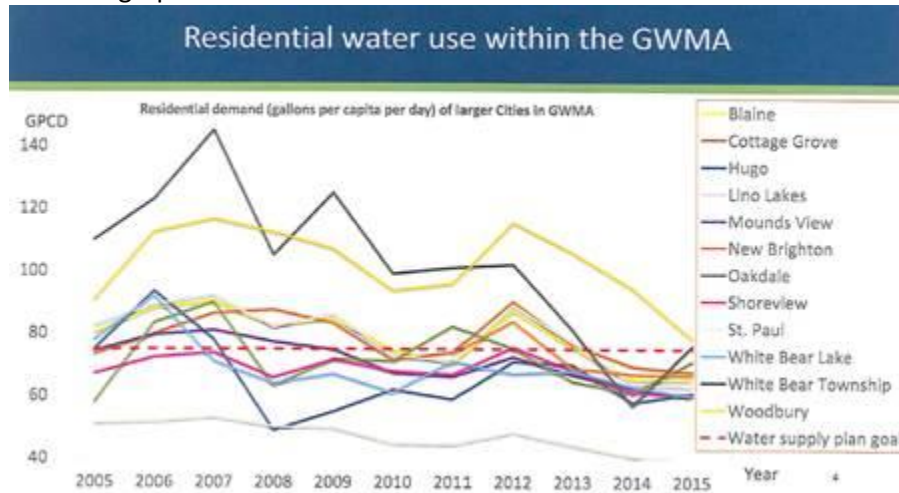
N&E METRO PAT

At their spring semi-annual meeting, members of the Project Advisory Team for implementation of the N&E Metro Groundwater Management Area (GWMA) Plan, learned about the rare natural resources in the 1.1M-acre Anoka Sand Plain. Jason Husveth, Principal Ecologist with Critical Connections Ecological Services, summarized over 20 years of research on the groundwater influenced shallow wetlands in this area. These wet prairies are associated with the location of the former glacial Lake Anoka, which is characterized by droughty upland sands to peaty lowland areas. As little as 6" elevation difference can determine whether a wetland can be sustained by rainfall and snowmelt. Dewatering of the wetlands by drainage ditches is a concern for long-term wetland sustainability.

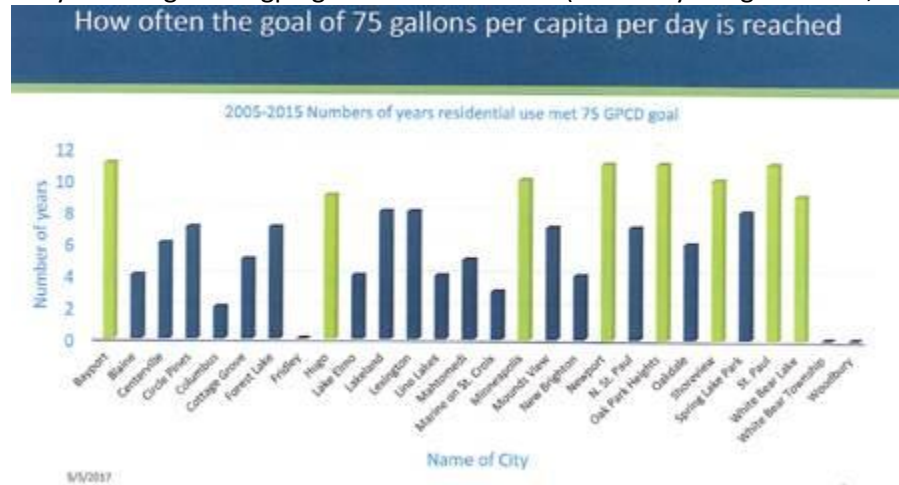
Jason Moeckel, DNR, gave several updates. He indicated that the ability of DNR to implement the N & E Metro GWMA Plan is dependent on continued funding from the legislature. There is language in the environmental omnibus bill that would exempt stormwater reuse projects from appropriations permitting; their remaining concern is the absence of a direct way to report stormwater reuse for irrigation, but DNR is developing a conservation tracking tool that may help with that. Legislation is pending that would require DNR to determine the economic effect of changing a permittee's appropriation threshold, along with an allowance for temporary water level changes to calcareous fens, and providing a depreciation scale for the cost of resolving well interferences.

Mark Bushinski, DNR, gave provided several examples of conservation strategies outlined in the waters supply plans by cities in the N&E Metro. They range from: partnering with organizations on education, providing financial support for raingarden construction, requiring a certain # of trees/sq ft with new

development, using social media to promote water conservation, providing rebates for rain barrels, low flush toilets and shower heads, providing toilet leak detection tablets and faucet aerators; switching to advanced water metering systems, requiring new developments to install water efficient fixtures, updating lawn irrigation systems with moisture sensors, enforcing watering bans, and increasing water citation fees. The per capita goal for the N&E Metro area is 75 gallons per day per person and there has been a downward trend since 2012, as shown on this graph.



Several cities are already reaching the 75gpd goal 80% of the time (shown by the green bars, below):



Mark also provided information on DNR water appropriations permitting activity since the last PAT meeting (between 11/1/16 and 5/1/17). They have completed 72 actions in 4 counties, including 28 general permits, 33 individual permit amendments, 10 new individual permits and 1 preliminary well assessment. Another 20 permits are in the review stage. Four of the permits have “right-sized” the authorized volume to match the actual volume of water used by the permit holder. The amount of water pumped from wells to control the spread of the 3M plume in southern Washington County has been reduced and the “sentinel” wells have indicated that the plume is not spreading as a result of the decreased pumping. Four of the new permits were issued to well owners that had been operational for years, but without a permit.

George Linnegren, City of Blaine, described their water supply planning experience. Although it was a large task, they are glad to have all their data together. Plus, the effort necessitated a discussion with their City Council members about water conservation approaches, enforcement, and promotion, as well as developing a

well interference policy in advance of adding future wells. New regulations and adequate funding were the biggest challenges.

Jason Moeckel, DNR, returned to give an update explaining how the White Bear Lake (WBL) protective elevation of 922' was set, taking into consideration: historical water levels and outlet elevations, impacts to lake access, swimming (beaches), sailing, and emergent vegetation needs. The County plans to reopen Ramsey beach this summer. Jason said that the recent White Bear Lake augmentation report indicates a cost of \$44M - \$48M, without a guarantee of avoiding water quality degradation. DNR has contracted with the S.S. Papadopoulos and Associates to develop a transient groundwater model based on the USGS steady state model and expect to have the model and report completed by the end of this summer. The transient results model can help DNR determine at what aquifer elevation the DNR should intervene to protect the lake level. Clarification was also provided that zebra mussels remove particulate, but not dissolved phosphorus, so the presence of zebra mussels in WBL is not sufficient to prevent degradation if water richer in phosphorus is used to augment WBL.

Lanya Ross, Met Council, explained how the [Final report: Regional Groundwater Recharge and Stormwater Capture and Reuse Study: North and East Metro Study Area](#)

used regional screening criteria (including data about soils, land use, natural resources, and drinking water vulnerability) to establish areas with the potential for groundwater recharge in the N&E Metro.

The final task of the day was for PAT members to provide input on future DNR actions related to implementation of the N&E Metro GWMA Plan. Discussion areas included what the audiences are to receive information, what types of information needs to be shared, and who needs to be involved in the development and distribution of the data. One key point was a request to have more frequent data sharing (real time would be ideal) and to translate the data into useful information, such as trends, comparisons, or action levels. A sharing of conservation data is desired, along with more information on groundwater contamination areas and remediation systems. Having a centralized repository that integrates groundwater, lake, and stream data that allows water managers to add data and access it. The PAT also discussed what role DNR should have in realizing aquifer recharge and what other actors need to be involved to insure recharge. The next PAT meeting will be on F, 11/3 from 8:30 to 11:30.

MAWSAC TAC

When groups of water suppliers share the same water source, collaboration between them is an important way to improve water supply planning and management. The Technical Advisory Committee to the Metropolitan Area Water Supply Advisory Committee met to assess good examples of collaboration that already exist and to identify barriers to collaboration, as well as opportunities to improve collaboration. Based on their discussions, next steps will be selected to help water suppliers work together.

MN'S URBAN WATER STORY

The Minnehaha Creek Watershed District is celebrating its 50 anniversary this year. One of their commemorating events was a talk by Freshwater Society Director, Steve Woods. Steve recounted the history of the collaborative system that has evolved in the metro area to restore and protect water resources. MN passed its first Watershed Act in 1955 and established a water resources board. This set the stage for creating special purpose water management districts, an approach unique to MN. Locales that petitioned to become a watershed district chose to do so for a variety of reasons, such as flood management, water quality improvements, improved coordination, and/or joint funding.

This model was strengthened in 1982, with the passage of the Metropolitan Surface Water Management Act that shifted some water management responsibilities to watershed districts and watershed management organizations. This act created mandatory, but flexible requirements for surface water management planning and implementation and gave the organizations *ad valorem* taxing authority to fund their work. With the passage of this Act, over half of the state's population was affected by the new layer of

government. Initially, 20 of the 35 organizations formed under this act failed, but new watershed-based boundaries emerged for the WDs and WMOs that exist today. In most cases, the boundaries encompass multiple cities, townships, and counties and, because of this, they are uniquely poised to manage projects that cross multiple jurisdictions.

Has this approach been effective? A U of MN study that reviewed lake transparency from 1975 to 2008 indicated that 34 metro lakes showed improvement, 44 showed no trend and 5 declined. So in spite of adding over 1M people during that timeframe, 92% of lakes either didn't get worse or got better. Steve attributes this success to the Surface Water Management Act. Similar results can be seen in stream quality, with the exception of chloride increases.

Steve's assessment of future challenges for urban water management: continued Legacy funding, shrinking groundwater resources, increased surface water runoff from larger and more intense storm events, and the declining returns from urban investments when larger proportional shares of pollution originate in rural areas (a function of the success of point source permitting for municipal wastewater and stormwater). Also mentioned as challenges were maintenance of stormwater systems and salt management.

If you are interested in a more complete history of the evolution of MN's water programs, check out the Freshwater Society's [water timeline](#) of MN and national environmental law and conservation.

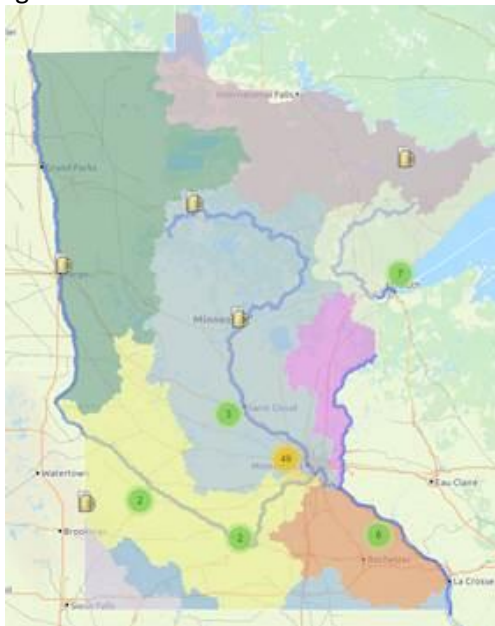
REPORTS

STATE OF MN WATER

- DNR: MN Stream Flow Report [5/1/17](#); normal, high, and flood flows across the state
- National Drought Mitigation Center: [5/2/17 MN Drought Monitor](#)
- DNR: [HydroClim Minnesota for Early May 2017](#)

BEER & WATER

Groundwater and surface water sources provide drinking water, as well as water for heating and cooling, lawn and crop irrigation, manufacturing, and food and beverage production. Beer aficionados know it takes more than grains and hops to make good beer; it also takes high quality water. If you want to know what water source is used to make your favorite Minnesota beer, check out Freshwater Society's new beer [website](#) to learn the water sources and challenges brewmeisters face.



NEW REPORTS

- Natural Resources Defense Council: [REPORT: Nearly One in Four Americans' Drinking Water Comes from Untested or Contaminated Systems](#); read the full report: [Threats on Tap: Widespread Violations Highlight Need for Investment in Water Infrastructure and Protections](#); [The NRDC report mentions asbestos in Duluth's treated drinking water, but Duluth's [2015 Drinking Water Quality Report](#) does not mention the presence of asbestos. Both the 2014 and 2015 Duluth reports say "No contaminants were found at levels that violated federal drinking water standards." The 2016 report is not yet posted.] Media coverage in the Strib: [1 in 4 chance your tap water is unsafe or not monitored, study says](#)

FIGURE 2: 27.4 MILLION PEOPLE SERVED BY COMMUNITY WATER SYSTEMS WITH AT LEAST ONE REPORTED HEALTH-BASED VIOLATION OF THE SAFE DRINKING WATER ACT (2015). POPULATIONS ARE SHADED AT THE COUNTY LEVEL TO SHOW THE NUMBER OF RESIDENTS SERVED BY COMMUNITY WATER SYSTEMS WITH VIOLATION(S) IN 2015.



- DNR: [Minnesota River, Shakopee - Watershed Characterization Report](#)

UPCOMING EVENTS

- May 7-13: American Water Works Association **Drinking Water Week**; go [here](#) for participation details
- May 9: Minnesota Day at the **National Climate Adaptation Forum**; registration can be found [here](#)
- May 9: **DEED MN Water Technology Roundtable: Challenges & Solutions in Stormwater**; 9:30 am– 3 pm; \$30; more event info and registration link [here](#)
- May 15-19: **Infrastructure Week – It's Time to Build** in Washington, DC and across the nation; participation details [here](#)
- May 17: **Fond du Lac Water Gathering**; 5:00-9:00pm; Black Bear Casino and Resort (1785 MN-210, Carlton); more details [here](#)
- May 18: **MN River Congress**; 4:30 pm networking fair and 7-9 pm program; Redwood Falls Community Center; Redwood Area Community Center (901 East Cook Street, Redwood Falls); \$30; register [here](#)
- May 22-25: **MN Public Drainage Manual Outreach Workshops**; 10:00-3:30; \$25 (includes lunch); 3 locations noted below; registration info to come
 - May 22, MN State Community and Technical College, Moorhead
 - May 23, Coyote Moon Event Center, St. Cloud
 - May 25, New Ulm Conference Center, New Ulm
- May 22: **MN Public Drainage Manual Broad User Outreach Workshop**; 10 am to 3:30 pm; \$25 (lunch provided); MN State Community & Technical College, Moorhead; register [here](#) by 5/12
- May 23: **MN Public Drainage Manual Broad User Outreach Workshop**; 10 am to 3:30 pm; \$25 (lunch provided); Coyote Moon Event Center, St. Cloud; register [here](#) by 5/12

- May 24: **The Death and Life of the Great Lakes**; Freshwater Society Moos Family Lecture Series; U of MN Duluth Kirby Student Center (1120 Kirby Drive); 6 pm reception on 2nd floor in the Griggs Center; 7 pm lecture is on the 3rd floor in the Kirby Ballroom; register [here](#)
- May 25: **MN Public Drainage Manual Broad User Outreach Workshop**; 10 am to 3:30 pm; \$25 (lunch provided); New Ulm Conference Center, New Ulm; register [here](#) by 5/12
- **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](#)
- 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](#)