

Legislative Water Commission Update 07/12/2018

ERRORS? OMISSIONS? Please notify: jim.stark@lcc.leg.mn.

This bi-weekly update is a roundup of Minnesota water news, as well as articles from beyond Minnesota, that may inform members. It also includes summaries of meetings and reports 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.

I look forward to continuing to work on water issues that are important to all of us.

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- **Next meeting of the Legislative Water Commission: July 26 (10: am) at the State Office Building**
- **The Commission met on June 21. Minutes are available at:** www.lcc.leg.mn/lwc/
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NEWS FROM THE LEGISLATIVE WATER COMMISSION (LWC):

The Legislative Water Commission (LWC) met on June 21, in Chanhassen, in conjunction with the summer meeting of the Minnesota Association of Watershed Districts (MAWD). Commission members joined MAWD members on field trips that included a boat tour of the lower Minnesota River and a tour of best-management practices in the western suburbs. During the LWC meeting, members discussed water-issue progress from the 2018 legislative session as well as water issues and proposed legislative recommendations for the 2019 session. Those issues include: a desired future state plan for water, wastewater infrastructure, drinking water, groundwater sustainability, lake sustainability and keeping water on the land (water retention).

The LWC will hold stakeholder meetings to prepare for the 2019 legislative session. Meetings will be in the SOB at 1:00 pm. Contact Jim Stark for additional details (jim.stark@lcc.leg.mn).

- *Drinking Water/Infrastructure/ Groundwater Sustainability (July 18)*
- *Wastewater and storm water Infrastructure (July 25)*
- *Keeping Water on the Land (Retention) (August 8)*
- *Lake Sustainably (August 22) **Note the day change from previous emails***
- *Desired Future State for Minnesota Waters (August 29)*

The next Commission meeting will be held on Thursday, July, 26, at 10:00 am, in the State Office Building.

Senator Wiger attended the Water Alliance’s One Water Summit in Minneapolis during July 10-12. Water leaders from across the country met to discuss how to achieve a sustainable water future. More information is available on the US Water Alliance website at <http://uswateralliance.org/summit/one-water-summit-2018>

SURFACE WATER/STORMWATER

National Flood Forecast Center, North Central Region: Due to recent rainfall, there are areas where the potential for flooding is occurring or is possible. For details, visit: www.weather.gov/ncrfc

DNR: Maps and tables are available on stream flow conditions throughout Minnesota. Current stream flows are compared with historical flow data and watersheds are ranked in the following categories (flood, high, normal, low, protected flow). Weekly stream flow maps and tables are generated from April to October. Weekly Stream Flow Reports | Minnesota Department of Natural Resources



A sign showing the all-time flood crest of the west fork of the Des Moines River in Jackson, Minn., stands out above the current flooding there on June 9, 2018. *Mark Steil | MPR News*

Flooding in Southern Minnesota: Governor Dayton [continued his tour](#) of flood damage in southern Minnesota with stops in Windom, Jackson and Blue Earth. During the Jackson stop, [Dayton pledged state resources](#) to repair washed out roads and other flood damage. "The magnitude of the water is just stunning," said Dayton. "I've never seen anything like it." Several state legislators traveled with Dayton.

Related: [Heavy rains swamping SW Minnesota](#). The west fork of the Des Moines River is receding in southwest Minnesota after approaching record levels because of recent heavy rains. At Windom, the river came within 16 inches of its all-time high. Downstream in Jackson, the Des Moines crested at about three feet under its record level. The summertime flood came after several weeks of downpours in the region. Last week, more than nine inches of rain fell in the headwaters area of the river in Murray County. Many farmers are concerned that the heavy rains have washed out fertilizer applied earlier this year to help corn and soybean fields. (MPR): [Environment Mark Steil](#)

Flooding closes several roads along the Minnesota River: Recent rains caused flooding of the Minnesota River between Mankato and the Twin Cities leading to the closure of a few bridges and highways, with weather forecast threatening more to come. That flow has drained into the Minnesota River, leading to minor flooding from Mankato to the Twin Cities. Flood warnings may remain on the Minnesota River for some time. ([Read more](#)) (*Dale Browning, June 27, 2018*)

Farmers bracing for more rain, facing prospect some fields need replanting: Farmers are suffering losses in the field because of flooding. ([Read more](#)) (*Jenny Kirk, June 23, 2018*)

Source reduction in small watersheds to improve urban water quality: Despite years of effort to improve urban water quality, many lakes and streams in urban regions still suffer from impaired water quality, largely because of excessive loading of nutrients, particularly phosphorus (P), but also likely nitrogen (N). Traditional approaches to addressing urban water- quality issues have focused on monitoring impaired water bodies and engineering structures or mechanisms to trap nutrients within or directly upstream of the focal water body. Despite a lot of effort and money spent cleaning up urban lakes, streams, and rivers, poor urban water quality persists, suggesting that additional approaches are needed. This paper describes how ecological approaches, specifically the “small watershed approach” can address impaired urban water quality and can point to potential additional solutions to improve persistent urban water quality issues. Visit: [University of Minnesota Institute on the Environment](#), the [National Science Foundation](#), the [Environmental Protection Agency](#), [Capitol Region Watershed District](#), and the [Water Resources Center](#).

Estimating annual chloride use in Minnesota: Salt is used every day in many applications. People add salt to food, apply salt to pavement and roads after snowfall, and use salt in their water softeners. While salt is inexpensive to purchase, it can have a high environmental cost, as elevated chloride levels are toxic to many plant and aquatic species. Contact *Alycia Overbo and Sara Heger, University of Minnesota, Water Resources Center*)

SUSTAINABLE WATER RESOURCES

This link contains national news regarding Sustainable Water Resources:

<https://sites.google.com/site/sustainablewaterresources/>

Government Web Site, <https://acwi.gov/>

Sustainable Water Resources Site, <https://sites.google.com/site/sustainablewaterresources/>

CLIMATE AND WEATHER:

Warming drives spread of toxic algae in US, researchers say: Across the U.S., reservoirs that supply drinking water and lakes used for recreation are experiencing toxins in their drinking water supplies with growing frequency. The trend represents an impact of warmer water and raises questions about the effects on human health, researchers say. "When water bodies warm up earlier and stay warmer longer you increase the number of incidents," said Wayne Carmichael, a retired Wright State University professor specializing in the organisms. Contact: Tom, James, Associated Press. Published in the Star Tribune on June 23, 2018.

MINES AND MINERAL EXTRACTION:

Several environmental groups have filed a lawsuit against the Department of the Interior in an effort to stop plans to allow **mining near the Boundary Waters Canoe Area Wilderness**. The lawsuit was filed in federal district court. The Wilderness Society, Center for Biological Diversity, the Izaak Walton League of America, and Earthjustice together with several local organizations ([read more](#)). (Minnesota River weekly update)

AQUATIC ECOLOGY

Project aims to control invasive carp west of Lake Minnetonka: The Six-Mile Creek Watershed District has received a state grant for a three-year plan to remove carp, an invasive species that stirs up lake beds, uproots plants and encourages algae growth. The project is part of the Six Mile Creek-Halsted Bay Habitat Restoration, a 10-year, multi-organization effort to make 2,488 acres of the sub-watershed more hospitable for wildlife and people as development in the area grows. ([Read more](#)). (Minnesota River weekly update)

GREAT LAKES

Senate FY19 Appropriations Bill Permits Increased Spending; The Senate Appropriations Committee approved its version of the FY19 Interior, Environment, and Related Agencies Appropriations Bill at its [full committee markup](#) . Its total allocation is \$35.85 billion. Of the EPA's \$8 billion, [\\$300 million](#) of funding is for the **Great Lakes Restoration Initiative (GLRI)**, an amount ten times the amount requested in the administration's budget. The Appropriation's allocation means that federal funds have the potential to be consistent with the GLRI's [Action Plan](#) which "calls for land use, recreation and economic activities that are managed to ensure that nearshore aquatic, wetland and upland habitats will sustain the health and function of natural communities."

AGRICULTURE AND WATER

Minnesota farmers launch new corn research program: in 2016, the Minnesota Corn Growers Association launched its goal of making corn farmers in the state the most sustainable and environmentally responsible in the United States. Now, the group has announced 12 farmer-led research projects on topics ranging from cover crop systems to intercrop seeding to help reach that goal. The projects, funded by the group's 2018 Innovation Grant Program, focus on nitrogen fertilizer management and protecting water quality ([read more](#)) ([Jonathan Knutson, June 25, 2018](#))

GROUNDWATER

DNR Awarded National Groundwater Monitoring Network : The DNR has been awarded a second grant from the USGS for Federal Fiscal Year 2018 to fulfill three of five [USGS National Groundwater Monitoring Network \(NGWMN\) objectives](#). Last year, DNR was awarded a grant to create web service connections with the National Groundwater Monitoring Network (NGWMN) to provide groundwater-site metadata, lithology information and groundwater level data. Funding is included for well maintenance for wells in Otter Tail County, new wells in targeted locations and, and continued web-service connections with NGWMN (Source: *Tim Quan, DNR*)

Minnesota Groundwater Tracing Database: Decades worth of groundwater tracing information is now available through the Minnesota Groundwater Tracing Database (MGTD). This work is largely a collaborative effort between the DNR, the University of Minnesota, local government units, other state agencies, and the local caving community. Sampling location data is spatially enabled through direct relationships with the Karst

Feature Database (KFD), Minnesota Spring Inventory (MSI), and County Well Index (CWI). The app, reports, and GIS files can be found on the [Minnesota Groundwater Tracing Database webpage](#) (County Geologic Atlas program). (Source: *Wes Rutelonis, DNR*)

MPCA Investigation of PFCs in the Ambient Groundwater: The MPCA recently reported on its most recent sampling for per-fluorochemicals (PFCs) in the state’s ambient groundwater. This report, titled [“Perfluorinated Chemicals in Minnesota’s Ambient Groundwater, 2013,”](#) is available on the MPCA’s website. MPCA staff sampled almost 200 wells in 2013, which mostly were from the agency’s Ambient Groundwater Monitoring Network. PFCs are a class of more than 3,000 manmade per- and polyfluoroalkyl substances (PFAS) used worldwide to manufacture products that are heat and stain resistant and repel water. PFAS are of concern because they bio-accumulate and are toxic. Because of their extreme stability, these chemicals are wide- spread and persistent in the environment and have been found in wildlife and people all over the world. The best available science indicates they likely cause several adverse human health effects including developmental problems to fetuses during pregnancy, cancer, liver damage, and immune and thyroid effects. In Minnesota, PFAS are of particular interest because this is one of the few places in the nation where they are manufactured and contamination from these chemicals has affected a large part of Washington County. This contamination comes from the past manufacturing and waste disposal by the 3M Company. 3M manufactured PFOS and PFOA at its Cottage Grove facility in Washington (Source: *Sherri Kroening,, MPCA*)

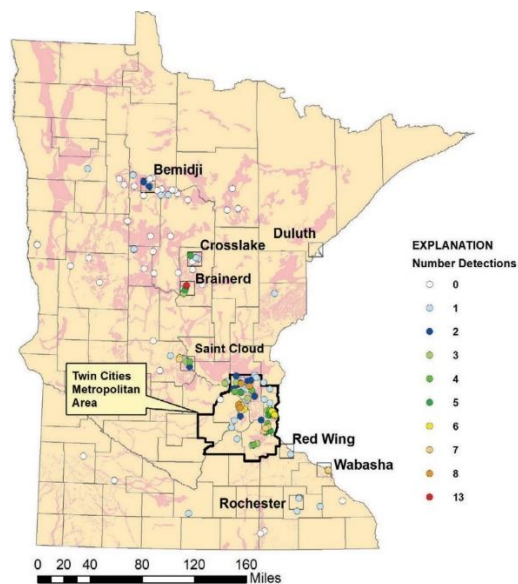


Figure 1. Number of perfluorochemicals detected in Minnesota’s ambient groundwater, 2013.

Wright County Geologic Atlas, Part B (hydrogeology): Part B of the Wright County Geologic Atlas has been published by the DNR. Part B atlases describe a county’s hydrogeologic setting, aquifer distribution, pollution sensitivity, groundwater recharge, and subsurface flow within the county. It builds on the geology described in the Part A atlas previously published by the Minnesota Geological Survey. Wright County is located in south-central Minnesota. Wright County’s surficial geology is dominated by New Ulm Formation sediments that were deposited by glacial ice of the Des Moines Lobe, underlying surficial geologic deposits, an underlying assemblage bedrock units. Elevated levels of naturally occurring arsenic and manganese are common throughout the county. The northern portion of the county contains elevated levels of nitrate and chloride and other indicators of higher pollution sensitivity. (Contact John Barry, *DNR*)

Groundwater discharge to the Mississippi River and Groundwater Balances for the Interstate 94 Corridor surficial aquifer, Clearwater to Elk River:

The Interstate 94 Corridor has been identified as a groundwater areas of concern because of its limited available groundwater resources. The U.S. Geological Survey, in cooperation with the DNR, completed six seasonal and annual groundwater balances for parts of the Interstate 94 Corridor surficial aquifer to better understand its long-term (next several decades) sustainability. Recharge estimates ranged from 3.30 to 17.06 inches per year.

Calculated groundwater discharges ranged from 1.45 to 5.06 cubic feet per second per mile. Ratios of groundwater pumping to total recharge ranged from 8.6 to 97.2 percent, with the longer-term groundwater balances ranging from 12.9 to 19 percent. Overall, this study focused on the surficial aquifer system and its interactions with the Mississippi River. (Scientific Investigations Report 2017-5114) [USGS Publication link to document](#)

The Interstate Technology and Regulatory Council (ITRC) announced the release of technical PFAS fact sheets: History and Use; Regulations, Guidance, and Advisories; and Naming Conventions and Physical and Chemical Properties. The Technical Team is developing a series of fact sheets to summarize the latest science and emerging technologies for per- and polyfluoroalkyl substances. The fact sheets are tailored to the needs of state regulatory program personnel who are tasked with making informed and timely decisions regarding PFAS-impacted sites. The fact sheets also provide an extensive reference list that will allow readers to get into the details as needed. Access the [fact sheets](#) at <https://pfas-1.itrcweb.org/>.

AGENCY NEWS

Minnesota Pollution Control Agency WaterFront: [View it as a webpage](#).

(Subscribe to WaterFront via Email Alerts, available at www.pca.state.mn.us/waterfront)

- [LCCMR Commission whittling down list of proposals for funding: 110 chosen for presentations](#)
- [Bonding bill passes but with controversial measure](#)
- [Open for comment: Studies on Lake Superior-North, Mississippi River-Headwaters and Thief River watersheds](#)
- [Giant Lego watershed helps teach water science](#)
- [In the news and online: Lawsuits filed over mining leases, local partners focus on water quality](#)

UPCOMING EVENTS

MCSC is presenting a technical discussion on phosphorus in constructed storm water ponds in partnership with the Saint Anthony Falls Laboratory. Here are the event details: Date: Thursday, July 19; Time: 9:00 AM to noon; Place: Saint Anthony Falls Lab <https://www.surveymonkey.com/r/5F7W783>

UNDERSTANDING GROUNDWATER in the WATERSHED CONTEXT

August 28th (Pine River) and November 14th (Sauk River)

This informational event is tailored for local government staff and officials in each watershed whose jobs involve planning for or implementing local water and land use practices or policies. Each event will provide 1) a basic, scientific understanding of groundwater and its interaction with surface water and 2) various perspectives on why, who, and how to protect this essential, shared, resource. Pre-registration is required: Sharon.pfeifer@state.mn.us

Minnesota Ground Water Association Fall Conference (November 15, 2018); the conference is accepting abstracts for oral presentations. The preferred topic is regional groundwater planning. Email your abstract and biography to president@mgwa.org by September 1, 2018.

The International Association of Great Lakes Research and Michigan Technological University have announced the 2018 State of Lake Superior (SOLS) Conference will be held October 9-12 in Houghton, Michigan. Hosted on the MTU campus, SOLS will be a multi-day conference and include invited sessions and abstracts, plenary sessions, field trips, and associated meetings. Stay tuned for more details and the Call for Sessions in coming weeks at iaglr.org/sol/sols18.

2018 Aquatic Invasive Species Research and Management Showcase: Join the Minnesota Aquatic Invasive Species Research Center on campus on Wednesday, September 12 for a selection of talks about the latest MAISRC research on starry stonewort, zebra mussels, spiny water flea, invasive carp, and much more. The list of breakout sessions and full presentation descriptions will be announced soon.

Climate Change Adaptation Meeting: November 14, 2018, University of Minnesota, Continuing Education and Conference Center. More to follow.

The biennial 2018 Upper Midwest Invasive Species Conference (UMISC) will be a Joint Conference with the North American Invasive Species Management Association, **October 15-18, 2018** at the Mayo Civic Center in Rochester, MN. Abstract Submission Is Open. Deadline to Submit an Abstract for Presentation: Wednesday, April 11, 2018. They are expecting about 700 people to attend. See <https://www.umisc.net/> or contact Doug Jensen, conference co-chair.

Minnesota Water Resources Conference: October 16–17, 2018, Saint Paul River Centre : The Minnesota Water Resources Conference presents innovative, practical, and applied water resource engineering solutions, management techniques, and current research about Minnesota's water resources. For More information contact: Nichole Salinas, College of Continuing and Professional Studies, University of Minnesota, [612-301-2448](tel:612-301-2448), ccapsconf3@umn.edu

An upcoming Climate Change Special Report webinar series will be hosted by USGCRP in collaboration with NOAA. The eight-part series will focus on the findings of NCA4 Vol. I: the Climate Science Special Report. All webinars will be conducted from 12-1pm ET. You can find the line-up and information on how to access the webinars below.

The 2018 American Geophysical Union Fall Meeting (Dec. 10-14) in Washington, D.C. AGU is accepting abstract submissions to these sessions (and many, many more) until Wed. Aug 1. The list can be found at globalchange.gov/notices.

NOAA Science Seminar series: Climate Science Special Report: Webinar Access: This information is still being finalized. *Subscribe to the OneNOAA seminar list to receive up-to-date information.*



NEWS FROM WASHINGTON: (NE-MW Institute):

EPA Seeks to Change Water Rule, Change Course on Pesticide Protection Rollback: The Environmental Protection Agency has submitted a proposal to the White House Office of Management and Budget, requesting a revision of the water rule, this time to change its purpose to "promote economic growth" and limit "federal oversight" of land. This decision comes after an executive order directing the EPA to create a new rule that aligned with a more narrow definition. If the EPA succeeds, the federal government could only regulate waterways that are "relatively permanent." This differs from the 2015 Clean Water Act's definition which includes "waterways with a 'significant nexus' to navigable ones." Read more at [The Hill](#).



Farm Bill: The Farm Bill has passed the House and the Senate. For more information please contact Eric Heath [via e-mail](#) or call at (202) 464 - 4019. Adapted from the Northeast-Midwest Institute. Web page [here](#). For more information, you can also contact Matthew McKenna [via e-mail](#) or call him at (202) 464 - 4012.