

Weekly LWC Update 8-5-16

Interested reader: each week, I gather general information for Legislative Water Commission members to help keep them apprised about water issues in Minnesota. It 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 attended and reports I have read, as well as info about upcoming events. During the Legislative Session, it also includes updates on water-related legislation. Any errors or omissions are inadvertent.

Barb Huberty, Director, MN Legislative Water Commission
100 Rev. Dr. Martin Luther King Jr. Blvd., 65 State Office Building
St. Paul, MN 55155
Phone: 651/284-6431
Email: barb.huberty@lcc.leg.mn

Web site: www.lcc.leg.mn/lwc/

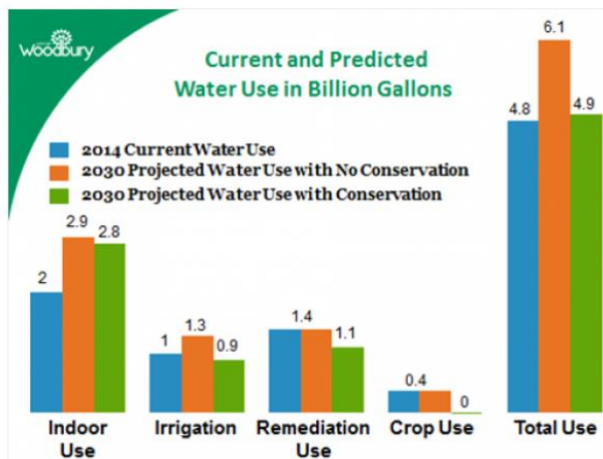
MN NEWS

WATER ACTIONS

- MPCA: [Water/Ways exhibit moving to St. Peter](#) and St Peter Herald: [Historical Society hosts traveling exhibition from the Smithsonian Institute](#)
- Business Wire: [Toro Announces 'Every Day. Everywhere. Every Drop Counts.' Grant Program](#); share this opportunity with NGO's doing water conservation work
- Pine and Lakes Echo Journal: [Water Conversation slated Monday in Hackensack](#) and Brainerd Dispatch: [Local groups to host 'Water Conversation'](#)
- KARE 11: [How 'water aware' are you?](#)
- Lakeland Broadcasting Company: ["The Lorax" to visit Prairie Woods ELC Thursday afternoon](#)
- BWSR: [Assessing the need: the Biennial Budget Request](#)
- BWSR: [Tracking Performance with PRAP](#)
- MPCA: [Citizen Monitoring Program hosts event for volunteers](#)
- Sleepy Eye Herald-Dispatch: [State Rep. Paul Torkelson receives award](#)

WATER SUPPLY

- DNR: [DNR Update for the N&E Metro GWMA Project](#)
- MPR: [Is your home irrigation system wasting water?](#)
- Woodbury Patch: [Woodbury Shines Light on Local Water Use, Projections for 2030](#)



- Thomson Reuters: [Executive Perspective: An ounce of clean water protection for pounds of cure](#); an interview about TNC's MN Headwaters Fund explaining how Mississippi River headwaters conservation can be a clean water protection solution
- South Washington County Bulletin: [3M reduces pumping levels at former dump site](#)
- Pine and Lakes Echo Journal: [Backus: City water expected to extend to some Powers Township residents](#)

SURFACE WATER/STORMWATER

- Blooming Prairie Leader: [Local concerns continue over new state buffer law requirements](#)
- Austin Daily Herald: [Residents get low down on buffer regs](#)
- BWSR: [Planting the Seeds: Establishing a state buffers program](#)
- Austin Daily Herald: [Project levy next step for CRWD](#)
- Le Center Leader: [MPCA taking comments on draft impaired waters list](#)
- WCCO: [Good Question: Why Do We Have Retaining Ponds?](#)
- Mankato Free Press: [Gustavus students researchers studying Seven Mile Creek water quality improvement outcomes](#)
- Strib: [E. coli closes beach at Lake Minnewashta](#)

EXTRACTIVE INDUSTRIES

- Duluth News Tribune: [Enbridge buys into Dakota Access Pipeline, Sandpiper future unclear](#); Inforum: [Sandpiper pipeline future unclear as Enbridge buys into Dakota Access](#); Twin Cities Business Magazine: [A New Business Deal Puts The Plan For A Northern MN Oil Pipeline In Limbo](#); Strib: [Future unclear for northern Minnesota oil pipeline project](#)
- MPCA: [401 Certification for NorthMet](#); PolyMet submitted a 401 certification request to the MPCA on 8/2; the MPCA will evaluate the need to develop conditions for a 401 certification that ensures the project can meet applicable laws and requirements and will begin developing requirements for a draft certification that ensure the project can meet applicable laws and requirements and preparing for public input; Duluth News Tribune: [PolyMet submits another permit application](#)
- Bemidji Pioneer: [Activists gather to oppose pipelines: Love Water Not Oil Tour ends in Bemidji](#)

AG & WATER

- Strib: [Water quality a top issue at FarmFest 2016](#) and Mn Farm Guide: [Wednesday Farmfest forums feature politics/water issues](#)
- Crookston Times: [Minnesota Farm Bureau: Area farms host Red River Valley Agriculture Water Issues Forums](#)
- MDA: [MDA announces 2016 Clean Water Fund research projects](#); cover crops and bioreactors
- KEYC Mankato: [Dept. Of Ag Certifies Farmers For Water Quality Practices](#)
- BWSR: [Studying Conservation from Field to Stream](#)
- Market Wired: [The Internet of Things Is Coming to Agriculture, Bringing a Mixed Bag of Outcomes](#)
- Lake County News Chronicle: [Finland farm recognized for water quality efforts](#)

OPINIONS

- Mesabi Daily News: [NBC Weekend Segment on BWCAW, Twin Metals](#) (here's the Today show segment that stimulated this article: [Couple spending a year outdoors to protect Boundary Waters from mine pollution](#))
- Ely Timberjay: [Range delegation can take a bow for tripping up Twin Metals](#)
- Minnesota Daily: [BWCAW needs our protection](#)
- Winona Daily News: [Joshua Lallaman: Winona lake's fish kill show why nutrients matter](#)

BEYOND MINNESOTA

- Government Accountability Office: [Levee Safety: Army Corps and FEMA Have Made Little Progress in Carrying Out Required Activities](#); the USACE & FEMA are deficient in making progress toward addressing these requirements of the 2014 Water Resources Reform and Development Act:

Implementation Status, as of June 2016, of Key National Levee-Safety-Related Activities in the Water Resources Reform and Development Act of 2014

Activity	Implementation status	Statutory deadline	Agency responsible
Reconvene the national committee on levee safety	No action	None	Corps
Continue to develop national levee inventory	Ongoing	None	Corps
Implement multifaceted levee safety initiative	No action	Several	Corps and FEMA
Submit a report on the state of U.S. levees, the effectiveness of the levee safety initiative, and any necessary congressional actions	No action	June 10, 2015 and biennially thereafter	Corps
Submit a report including recommendations on advisability and feasibility of a joint dam and levee-safety program	No action	June 10, 2017	Corps and FEMA
Submit a report including recommendations that identify and address legal liabilities of engineering levee projects	No action	June 10, 2015	Corps

Source: GAO analysis of Corps and Federal Emergency Management Agency (FEMA) information. | GAO-16-709

- Federal Register: [Hazardous Materials: Oil Spill Response Plans and Information Sharing for High-Hazard Flammable Trains](#); proposed expansion and clarification regarding oil spill response plan requirements are open for comment until 9/30
- Strib: [WI] [DNR scales back manure rules after industry complaints](#)
- Chicago Tribune: [Emanuel proposes water, sewer tax to shore up ailing pension fund](#)
- Strib: [California water conservation returns to local leadership](#) and [The Latest: California water conservation drops](#)

MEETINGS

LITTLE ROCK CREEK

The Project Advisory Team (PAT) for the Little Rock Creek Groundwater Sustainability Project met a week ago. In response to frustrations expressed by the PAT at the prior meeting, the focus of the meeting was changed from covering additional plan content to learning how the process and the relationships could be improved. As volunteers, PAT members want their time to be valued, their opinions heard, their advice considered, and differences of opinion to be respected so that, in the end, their effort will make a difference. The PAT also wants the DNR agenda to be transparent and expects a clear and factual articulation of issues. They would like DNR to recognize that irrigated agriculture is a valued livelihood and benefit to the local economy, not a just a source of water issues. PAT members brought forward several concerns that will need to be resolved:

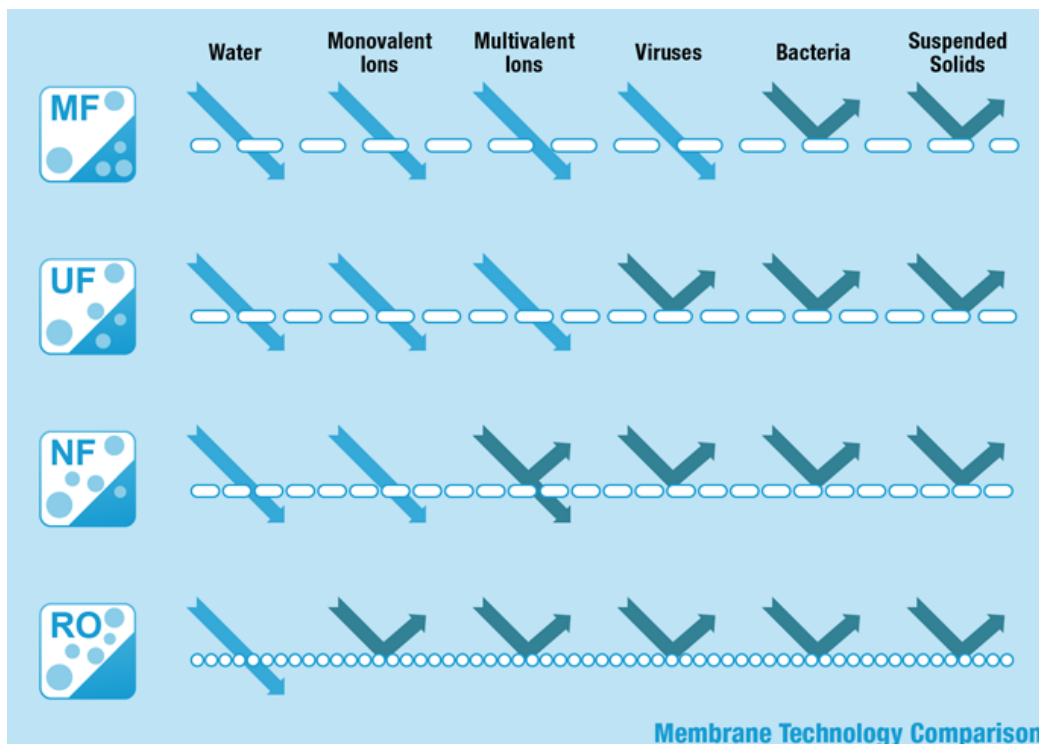
- using the low August flow as a baseline for water use thresholds will be a challenge since that is a prime time for irrigation need

- the predictive nature of models causes a level of uncertainty that may be difficult to translate into firm appropriation thresholds
- the negative thresholds value of 10% may be too conservative
- a shift to more cover cropping may stimulate the need for irrigation outside the traditional May to September window
- cropping patterns and practices have changed, but U of MN irrigation guidance has not kept pace with those changes
- augmentation of Little Rock Creek during low flows should be considered

In addition to discussing these concerns, PAT members will learn about Benton County’s irrigation scheduling project to address water efficiency at their next meeting (8/24, 1-4 pm, Lion’s Park building in Rice). As time allows, they will begin to weigh in on specific problem/solution scenarios that will eventually become incorporated in the sustainability plan.

WATER REUSE AT GNP

The folks (not the chickens) at GNP, Inc have taken another big water conservation step. In their quest to achieve a water use goal of 4 gal/bird (compared to an industry average of 7 gal/bird and 40% below their 2011 baseline amount), GNP has already installed Ecolab’s water efficiency devices for their inside/outside bird washing processes. They have also gone beyond the standard biological, oxygenation, and UV light processes for wastewater treatment, adding GE Water’s ultrafiltration with polymeric membranes to surpass the standards set in their discharge permit. The treated wastewater is used for a variety of non-potable uses, including compost production at an adjacent facility. Now – as they try to move toward potable reuse of treated wastewater – they have just completed the monitoring phase of a \$200,000, GNP-funded, 90-day pilot study to compare the performance of an even more advanced GE Water polymeric filtration system to a Nanostone Water ceramic system. As you can see in the graphic below, microfiltration, ultrafiltration, nanofiltration, and reverse osmosis systems each provide a different level of protection; the cost increases as filtration effectiveness increases.



Why GNP's interest and commitment to water reuse? In addition to meeting their sustainability goals, GNP recognizes the high water risk their business could face because groundwater availability is constrained in their area due to the presence of trout streams, increases in nitrate levels, and limited surficial aquifers above granite bedrock. In this case, risk protection is a stronger driver than the cost of water.

Even though technology has been evolving to convert wastewater into potable water, MN does not yet have regulations for direct potable reuse of treated wastewater, so GNP is working closely with MDH staff on this pilot project to gather data with robust testing and validation techniques that will help inform future regulations. The pilot used multiple controls:

- 3 levels of membrane protection (ultrafiltration, ultrafiltration, and reverse osmosis with direct and continuous integrity testing),
- 3 levels of disinfection (ultraviolet light and chlorine, ozone, and chlorine residual), and
- Granular carbon (for organics removal)

In addition to testing for standard inorganic and organic parameters in the primary and secondary drinking water standards lists, MDH added a list of contaminants of emerging concern to be tested and set 3 removal rate targets: 12 log removal for viruses, 9 log removal for cryptosporidium, and 10 log removal for bacteria. The tests will compare the 2 systems' effectiveness in treating the wastewater and will identify operational differences, like energy use and ease of operation.

Aditya Kumar, of Nanostone Water in Eden Prairie, explains how the ceramic filtration system operates.



Reuse of treated wastewater for direct potable use is a very new water conservation approach. Only Texas and New Mexico have adopted direct potable reuse standards and CA is in the process; in all three cases, these standards apply to municipal wastewater, not industrial wastewater, which could be significantly different. Industrial water use in the U.S. is expected to increase 200% by 2030. Because water quantity and quality are cornerstones of the food and beverage industries, they have been leaders in advancing water reuse.

MDH currently has the lead role in managing the activities of the Inter-Agency Reuse Work Group, which is supported for 2 years with Clean Water Fund dollars. They are evaluating how to foster water reuse while protecting public health. Just as there are no potable water reuse rules or monitoring framework at this time, there is no MN Agency that has been given the legal authority to lead reuse efforts in the state, nor have roles for multiple agencies been defined.

Several important reports about reuse are on deck: the [National Water Research Institute](#) has a publication coming out in Sept., GNP expects to publish their pilot study report in December, and the Inter-

Agency Reuse Work Groups' final report with recommendations is due June 30, 2017. In the meantime, GNP is looking for partners to help underwrite a \$2.2M capital project to go from pilot scale testing to full scale reuse.

LSOHC

The Lessard-Sams Outdoor Heritage Council met this week. As a result of their discussions, they will be developing an outcomes and measurements process to convey the statewide impact of the Outdoor Heritage Fund investments as they relate to public expenditures and expectations. An update on the trail conflict in the Mississippi Northwoods project area was given: the LSOHC has proposed a land swap with Crow Wing County, asked DNR to put a hold on further DNR grant and aid transaction for that property, and discussed developing a process for property ownership reversion, should it be needed. The Council also discussed the need to develop guidance about appropriate uses of revenues generated from LSOHC acquisitions. The Council approved a \$15,000 expenditure from the administrative budget for questions added to the U of MN's annual statewide survey about the OHF. A proposal to amend the accomplishment plan for a large land acquisition around the Marcott Chain of Lakes in Inver Grove Heights received a lot of discussion, particularly the terms of the easement related to the presence of buildings, human uses, implementation of the natural resources management plan to restore wildlife habitat, and getting a DNR certified appraisal; the amendment and budget shifts were approved. The Council agreed to save August 23-25 to hear the next round of 44 proposals (the 2 top ranked projects were RIM wetlands and RIM buffers for wildlife and waters). They also had general discussions about defining trails and clarifying expectations for trails in accomplishment plans, along with the need to establish a working group on easements to address a variety of gray areas that need resolution. Accomplishment plans for three projects were approved.

FARMFEST

At this year's FarmFest, a panel of speakers discussed MN's new buffer law and the status of the Waters of the U.S. rule. The panel was moderated by Jerry Groskreutz (KDHL Farm Director) and panel members included Rep Torkelson, Don Parrish (MFB Sr Policy Analyst), Roger Johnson (NFU President), Lawrence Sukalski (American Soybean Growers Assn. board member), Kirby Hettver (MN Corn Growers Assn. secretary), Warren Formo (MN Ag water Resource Center Director), Dave Weirens (BWSR Ass't Director), and Matt Wohlman (MDA Ass't Commissioner). Rep Torkelson reported on two buffer issues that need further resolution:

- (1) there are some waterways constructed as ditches that have been included on the Public Waters Inventory; currently, those are required to have 30' buffers but many feel that they should have 16.5' buffers like other ditches
- (2) there is concern that the Farm Service Agency has concluded that buffered areas are ineligible for federal conservation programs

In addition to Rep Torkelson, LWC members Rep Johnson, Rep Hamilton, and Sen Dahms were also present.

REPORTS

STATE OF MN WATER

- 8/1 [Stream Flow Report](#); most flood flows have abated
- 8/2 [Drought Monitor](#)

HOT OF THE PRESS

The following two agency reports of interest have just been published. I'll digest them and report out at a later date, but for those of you who want to dive in early, here are the links:

- MPCA: [Annual Permitting Efficiency Report](#) (August 1, 2016)
- MDH: [Summary of Safe Drinking Water Monitoring Results for Minnesota for 2015](#)

UPCOMING EVENTS

- Aug 10: **Faribault County Multipurpose Drainage and Soil Health Field Day**; 9 am to 3 pm; 4-H Building (270 White Oak Rd, Blue Earth); for more information, go [here](#)
- Aug 13 – Sept 25: **Smithsonian’s Water/Ways and We Are Water MN** exhibits and activities in St Peter; grand opening at 9 am on 8/13 at the [Nicollet County Historical Society](#) Treaty Site History Center
- **Aug 17: Legislative Water Commission all day field tour (details to come)**
- Aug 23: **MnTAP Intern Symposium**; 1-5 pm: Johnson Great Room and Ski-U-Mah Room @ McNamara Alumni Center, U of MN; reports on projects that include helping companies reduce water use; the agenda can be found [here](#); [register here](#).
- Aug 24-25: **BWSR Tour**, East Grand Forks, more details to come
- Aug 31: **NEMO Workshop on the Lower MN River**, focusing on sediment pollution; no cost, but registration is required before 8/22 at z.umn.edu/nemominnesotariver
- Sept 7-9: **International Drainage Symposium**, \$400, The Commons Hotel (615 Washington Ave SE, Minneapolis), registration [here](#)
- Sept 14: **NEMO on the St. Croix River Workshop**, focusing on the National Scenic Riverway rules and policies and adopting Minimum Impact Design Standards by the riverside communities; registration info to come
- Sept 17: **Buffer Field Trip** (in conjunction with the U of MN Buffer Science and Design Symposium on 9/16); registration link to come [here](#)
- Sept 20: **Water Technology Summit**, focusing on the Agriculture, Food and Beverage Sector; US Bank Stadium; more details to come
- Sept 20-23: **American Water Works Association – Minnesota Section Annual Conference** (their 100th anniversary); Duluth; details [here](#)
- Sept 22: **Clean Water Summit - Green Infrastructure for Clean Water - Rethinking Redevelopment and Retrofits**; MN Landscape Arboretum; \$80; 9 am to 4:30 pm; info & registration [here](#)
- Sept 26: **MN’s Water Reuse Stakeholder Meeting** (open to the public); 1:30 – 4:30; MPCA Board Room
- Sept 29: **NEMO Lessons Across the Landscape Workshop**; land-based tour focused on urban stormwater practices in Minneapolis, led by the Mississippi Watershed Management Organization; registration info to come
- Oct 5-6: **Aquatic Invaders Summit II**; River’s Edge Convention Center (10 4th Ave. S, St. Cloud); \$165 (early)/\$180 (late) registration; register [here](#)
- Oct 18-19: **MN Water Resources Conference**; agenda to come; cost and registration information [here](#)
- Oct 24-26: **BWSR Training Academy**; Cragun’s in Brainerd (registration will begin in August)
- Nov 17: **MN’s Water Reuse Stakeholder Meeting** (open to the public); 1:30 – 4:30; MPCA Board Room
- Jan 23-24, 2017: **MN Water Well Association’s 95th Annual Trade Show and Convention**; Minneapolis Marriott NW; more info to come [here](#)