

Legislative Water Commission- 2019 Legislative Recommendations:
Wastewater and Storm-Water Infrastructure
June, 2018
DRAFT, for Discussion only, JRS

Minnesota's Wastewater Infrastructure: Well-maintained and properly functioning wastewater (wastewater and storm water) systems are important because they protect public health and encourage economic development. Many communities have difficulty keeping up with staffing, training, reporting, rules, required upgrades and new regulations. Others have problems with infiltration and inflow are due to broken or cracked pipes, sump-pump connections, extreme rain events, and lack of overflow capacity. For still other communities, funding is a major problem. For a variety of reasons, small towns face particularly difficult problems in meeting wastewater treatment demands.

Wastewater treatment facilities (WWTFs) typically have a design life of 40 years. After that, replacement and repairs are required. In addition, older treatment systems are commonly located in rural areas with higher sewer bills and limited municipal funding for upgrades. Most WWTFs were built with the assistance of federal and state funding. Federal funds for Minnesota water infrastructure has tapered off significantly since the 1990s. Barr Engineering conducted a state-wide assessment of wastewater infrastructure costs resulting from new and changing water quality standards and infrastructure requirements. Total costs were estimated to be in excess of \$300 million dollars per year. Costs needed for wastewater and storm water treatment system upgrades also were made for six example cities (Albert Lea, Austin, Fairmont, Grand Rapids, Hibbing and Rochester). The costs for wastewater upgrades for these cities ranged from \$200 to \$800 per resident and from \$600 to \$800 per resident for storm water. For these cities future storm water treatment requirements have the potential to add significant cost to the cities' financial burdens for about \$15 million combined cost (capital and operating) per year, on the average for each city.

Wastewater and storm water improvements in Minnesota can be financed by loans or grants from a variety of public funding programs. Loans typically provide more favorable repayment conditions than municipal bonds. Grants can be used to decrease the required loan amount making repayment of capital costs more affordable. Given the significant gap that currently exists between requested and available funding for storm water, it is expected that future storm water treatment requirements for cities will significantly exceed current funding levels.

This document contains a summary of the effort put into this topic last year as LWC recommendations to the Legislature. Some of the following recommendations were put forward with some success. All of the recommendations are include for consideration for 2019. Following are recommendations as they apply to the maintenance and operation of adequate wastewater and storm water infrastructure with the goal of sufficient and clean water for the future. Following is a list of intended to cover the most important issues that need resolution:

- 1. Independent, Qualified, cost-effectiveness review of best-management practices at wastewater facilities: The societal benefits of cleaner water, resulting from improvements in wastewater treatment, are difficult to measure directly because they are qualitative. Therefore, we need to move toward infrastructure-improvement decisions that are based on cost-effectiveness reviews that examine feasible alternatives to meet required pollutant reduction relative to the cost.**
2. Recommend that wastewater facilities undergo an **"alternatives review"** process that includes estimated pollutant reduction for various improvements to best-management practices. These would be cost-effectiveness evaluations rather than a cost-benefit evaluations. An LCCMR grant to the Minnesota Pollution Control Agency (MPCA) currently is included in the ML 2018 Environment and Natural Resources Trust Fund Bill ([HF 3352/SF 2934](#)). If funded, the project proposes to determine how mechanical and pond wastewater treatments can be optimized to operate more effectively as well as meet new effluent limits (ENRTF ID: 035-B). As the grant proceeds, it should support these reviews. Reviews could assist Local Governmental Units (LGUs) to identify options for achieving pollutant-load reductions as outlined in their Total Maximum Daily Load (TMDL) requirements, as well as effluent limits from permits where TMDL requirements have not yet been established. This process also would help permittees evaluate whether trading options are viable, compared to new, or improved, facilities. Storm-water quality credit trading would be examined through an LCCMR grant to the Shell Rock River Watershed District that also is included in the ML 2018 Environment and Natural Resources Trust Fund Bill. This could inform the trading evaluation process. Finally, the reviews could help identify areas where water infiltration and inflow to sewer lines is excessive. In those areas, corrective actions could be made to reduce the treatment of infiltration and inflow.

3. **Independent peer review of wastewater standards: Incorporate the Minnesota Pollution Control (MPCA) Commissioner's order into statute.** This recommendation would support MPCA efforts to provide additional scientific and public review of new and revised water-quality standards, and would ensure that the process continues on under future administrations .Background: A Minnesota Pollution Control (MPCA) Commissioner's Order (Order) was issued in July 2017 to address ongoing confusion about MPCA's reliance on independent, scientific peer review in the development of water quality standards. The Order establishes a transparent process for peer review of the scientific basis for proposed water quality standards, and allows for public comment on both the scientific information and the peer review. The order applies to only new, or revised, numeric water-quality standards that differ from U.S. Environmental Protection Agency's (EPA) criteria that have been through peer review. The MPCA peer-review process identified in the order is based on the EPA's Peer Review Handbook (4th Edition, 2015). A technical-support document (TSD) is developed to document the scientific basis for a proposed standard and under the Order each TSD must undergo external, scientific peer review. A draft TSD is released for public comment prior to peer review. The MPCA takes public comments on questions to pose to the peer reviewers. The TSD is then revised in response to public comments, and peer review, and becomes the basis for the water-quality standard rulemaking effort. The MPCA's Web site identifies water-quality standards under development, the lead agency scientist for each development effort, and opportunities for public input. The full Commissioner's Order: (115.035) is available from the MPCA.
4. **Pilot watershed-scale trading program that involves stakeholders:** A pilot program is needed to develop an adaptive approach for pollutant trading or pollutant banking, at a watershed scale. Possibly find a third-party broker to facilitate. The approach should include the agricultural community in the planning process, possibly using the Oregon model. A contractor could be used to facilitate planning because stakeholders would include many participants. Interested partners may include: MPCA, Minnesota Department of Health (MDH), Board of Water and Soil Resources (BWSR), Chambers of Commerce, League of Minnesota Cities, Minnesota Environmental Science and Economic Review Board, Minnesota Environmental Partnership, Metropolitan Council, and the Minnesota Storm water Coalition. Ideas for brokers: BWSR, Minnesota Technical Assistance Program, the Environmental Initiative, or a new organization. The Minnesota River Basin may be ideal for a pilot because there is a wealth of phosphorus and chloride data. There also is an opportunity to incentivize more storage in the Minnesota River basin using non-point source trades. Consider funds for the MPCA to develop basin-wide data that shows where "potential to emit" conditions exist that would necessitate facility upgrades (they've already done this for phosphorus and chloride in the MN River Basin). Relate these data to impairments, possible trading areas, and to watershed boundaries, to determine where opportunities are greatest for successful point source to point source or point source to nonpoint-source trades.
5. **Identify efficiencies for regional wastewater administration, operation and maintenance: Small towns and cities struggle with costs associated with maintaining and upgrading water supply and wastewater-treatment facilities.** Alternative approaches are needed meet the needs of towns and cities that struggle to maintain, or grow, their population and economic bases-- Encourage, and provide funding for, stakeholders, including representatives from local governments, state agencies, state colleges and universities, and consulting engineers, to explore and identify alternative approaches and opportunities to address the challenges small cities and towns face in meeting their water supply and wastewater treatment needs. Consideration should be given to exploring ways to encourage regionalization, promote asset management, coordinate administrative and operational activities, recruit and share wastewater operators, and when appropriate, consider how decentralization of utility services might be accomplished.
6. **Change flushable wipes labels on personal care wipes--**Get the language Lake Crystal used to ban flushable wipes and modify, or advance, one of the bills already introduced in 2017.
7. **Support the Governor's Public Facilities Authority (PFA) Bonding Request--**The PFA provides state matching funds for loans and grants to cities for wastewater, drinking water and storm water infrastructure projects. The Commission supported the PFA bonding target to of 167 million per biennium and has agreed to prepare a letter describing the need and timeframe for this commitment.
8. **Provide inflow and infiltration (I/I) funding for public and private sewer line--** Define the level of I/I that is considered excessive--above which corrective action should be funded. Amend MN Stat 473 to allow the Metropolitan Council to use revenues for this purpose. New **funding source (such as the Chesapeake Bay model):** Review the funding recommendations from the G16 and Minnesota Environmental Partnership report to see if there is majority interest in pursuing any of them.
9. **Streamline regulatory process--**The MPCA could assign permitting staff by watersheds, or by receiving water, so that communities within a watershed are getting the same direction. Additionally, they could issue permits within a watershed on the same timeframe so communities, related by receiving water restrictions, could work better together.

