



## Legislative Water Commission

Barb Huberty, Director

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June 15, 2017

### Meeting Minutes

#### Members Present:

##### House

Representative David Bly  
Representative Peter Fischer  
Representative Glenn Gruenhagen  
Representative Clark Johnson  
Representative Paul Torkelson

##### Senate

Senator Kent Eken  
Senator Jason Isaacson  
Senator Bill Weber  
Senator Charles Wiger

#### Members Excused:

Senator Paul Anderson  
Senator Andrew Lang  
Representative John Poston

The meeting convened at 10:31 a.m. on June 15, 2017; a quorum was not present. Director Huberty began the overview of water-related provisions that were included in adopted bills during the 2017 session. Upon arrival of a quorum, the meeting was called to order at 10:38 a.m. and Rep Johnson moved approval of the April 24, 2017 minutes. THE MOTION PREVAILED.

Director Huberty completed her review of adopted provisions and then provided an overview of remaining water-related bills introduced in 2017 but not yet acted upon, arranged into 4 main themes: capital projects, programs providing pass-through funding, operational provisions, and regulatory provisions. Next, members received an overview of their packet and the agenda and they were asked to log questions needing more in-depth follow-up for each broad presentation topic. These questions will be used to provide direction to the co-chairs for planning future meetings. The next meeting will be Tuesday, July 18, 2017 from 10:00 a.m. to 12:30 p.m.

Sen Eken, author of the 2015 SF689 explained how high capital costs to meet permit requirements (e.g., \$10M in Moorhead), the differences between state phosphorus limits (e.g., 4mg/L in Moorhead and 12 mg/L in Fargo), and the small contribution made by point sources (e.g., 20% in Moorhead's watershed vs 80% by non-point sources) all led to the development of his bill. His bill was much broader, but the provision which passed directed the MN Office of Management and Budget (MMB) to prepare an independent report on whether environmental benefits are justified by regulatory costs for wastewater

and stormwater programs. Rep Gruenhagen indicated a similar concern in Glencoe, which is one city participating in a lawsuit against MPCA on the phosphorous standard, due to a concern about flawed data and scientific peer review, and the high cost to rate payers.

Barr Engineering, Inc was awarded the contract and they produced the Report "[Engineering Cost Analysis of Current and Recently Adopted, Proposed, and Anticipated Changes to Water Quality Standards and Rules for Municipal Stormwater and Wastewater Systems in Minnesota](#)", which was submitted to MMB in February 2017. Members of the Barr team were introduced: Dale Finnesgaard, Bryan Oakley, Greg Wilson, Nick Nelson, and Project Manager Hal Runke. Dale Finnesgaard explained the legislative criteria that provided the scope for their work, how facilities were selected, and what assumptions were made regarding future water quality standards. Ultimately, 15 cities were selected for detailed review that represented different areas of the state, community sizes, and wastewater treatment technology types. Six of the cities from the initial list are under stormwater permits so they were used for the stormwater analysis.

Bryan Oakley, who led the wastewater analysis, explained that no Mn cities use membrane filtration at this time. They normalized the cost for communities of different sizes and their analysis included the cost of loan repayments and operation and maintenance (O&M) costs per equivalent residential unit. In general, the more complex the treatment system, the more expensive the cost.

Rep Fischer asked how the costs for replacing aging infrastructure vs complying with new standards was considered. Barr indicated that costs did not include replacing existing infrastructure. It was mentioned that PFA staff said in the past that some facilities are not building up reserves to manage replacement costs.

Rep Weber recognized that different technologies provide for different levels and mechanisms of treatment. He wanted to know whether any of the cities selected used combination systems. Barr said that one pond system had added tertiary chemical treatment to meet the phosphorous limit.

Greg Wilson then described the analysis for permitted stormwater programs, indicating that total phosphorous is the primary cost driver. The primary best management practice, wet retention ponds, provides an estimated flow-weighted reduction of 50% for phosphorous, 85% for total suspended solids, and 35% for total nitrogen. Barr used total normalized annual costs for capital and O&M costs/equivalent residential unit. Mr Wilson noted that, in general, stormwater treatment costs are more uniform, averaging between \$800,000 and \$1,000,000 per impervious acre. Mr Wilson also indicated that the wastewater and stormwater costs are not additive, since a portion of the upfront stormwater costs are borne by developers, whereas the municipalities bear the full upfront cost of wastewater treatment.

Rep Bly asked whether the stormwater pollutant reductions take into account heavier storms. Yes, because the data is related to impairments, which evaluate multiple flow scenarios.

Rep Gruenhagen asked why MPCA opposes peer reviewed science; Barr declined to comment.

Next, Shannon Lotthammer, MPCA's Environmental Analysis and Outcomes Division Director, shared additional background for the report, explaining that MN water quality standards stem from the federal Clean Water Act provisions to protect the beneficial uses of water and that EPA must approve them. If MN does not set standards, EPA can step in and take over that role. Once the standards are set, they are implemented through permits. Standards are set to be achievable goals and the cost study

represents the challenges faced by permittees, when they implement the tools to achieve the goals (standards). When setting standards, costs are not discussed. Cost discussion become part of the permit conversation. Permits are highly technical and site specific; MPCA can forestall the implementation of certain standards until affordable by communities (through cheaper technologies or financing becomes available). The permit translates the water need (standard) into plant capacity and the permit process is iterative and can be contentious.

MPCA believes the cost analysis has some limitations because it: doesn't address site-specific conditions, makes conservative assumptions, and doesn't address permit flexibility or other tools to overcome cost constraints. For instance, MPCA has submitted a proposal for an LCCMR grant that will help wastewater facilities optimize their systems to control costs. They are also interest in more water quality trading opportunities for point sources and non-point sources.

The chloride standard was adopted in 1990, but MN did not require wastewater facilities to monitor for it because it was not an MPCA priority. It is required now because they have data showing it is a problem. Because of the high cost to treat chloride, a wastewater work group was formed to provide recommendations for strategies that can be implemented in permits moving forward. Variances are one of those strategies.

Rep Torkelson asked why cities did not have to complete stormwater retrofits (a strategy similar to the installation of agricultural buffers). MPCA indicated that stormwater management during development and redevelopment was a more practical and affordable approach. Additionally, stormwater permittees must use non-structural approaches, as well as decentralized approaches that are less costly to build but more costly to operate and maintain.

Ms Lotthammer touched briefly on the River Eutrophication Standard (RES), explaining that timing of discharges is important. When treatment plants discharge during low flows, the discharge is a higher proportion of the pollutant load. MPCA has had several challenges to RES and the standard has not been overturned, to date. MPCA recognizes the high costs to cities and helps them find cost-effective ways to meet their requirements.

Rep Johnson asked about the statement that MPCA doesn't use peer review. Ms Lotthammer replied that MPCA does use multiple peer review methods to incorporate peer reviewed science when developing standards. Rep Gruenhagen rebutted that no one is against clean air or water, but believes that standards aren't developed with peer-reviewed science and standards are without scientific benefit. Rep Fischer indicated that the report identified outliers and wants to know where they are and a process to address them so cities know.

Next the LWC shifted topics to learn whether current source water protection measures are adequate to protect the quality of water supplies. Steve Robertson, MDH Source Water Protection Unit Supervisor, gave an overview of current laws, programs, and funding that protect source water.

Steve Albrecht, Burnsville Public Works Director, then explained how they are proceeding with wellhead protection (WHP) plan implementation in their urban setting. He emphasized the important role MDH plays as a partner with cities. Burnsville provides water for its community and 90% of Savage's water supply, extracting both groundwater (17 wells) and surface water and treated with a water treatment plant. Burnsville was fully developed prior to WHP regulations, are highly industrialized, and they are in an area that is susceptible to pollution. They wanted a dynamic approach to implement their WHP with measurable, annual goals that enable them to continue to have strong consumer confidence in their

water supply. They have done testing beyond what the state requires and in order to react to land use changes, they have created an overlay district over 800 properties that set protective standards that must be met when redevelopment occurs. Each year, they inspect the 80 most concerning properties and owners have been receptive to tweaking their practices to protect water. They also communicate with residents and work with individual business owners.

Rep Gruenhagen wondered if the landfill contained coal ash and how they were protected from that. Mr Albrecht said they have 2 closed landfills in their WHP area that could be problematic; the open landfill is not a problem because they installed a liner and capture leachate for new waste and use soil cover to help reduce leachate generation to protect water.

Rep Torkelson asked about the quarry water. Mr Albrecht said the quarry water is groundwater that is apparent at the surface; they received \$6M in state funding to help them develop it as a water source.

Laura DeBeer, Pipestone SWCD Water Technician, explained how they have a six-county effort in SW MN to engage rural landowners located outside city boundaries in protecting water supplies. She noted the importance of one-on-one contact with producers and has felt that producers have been receptive to their suggestions for practices that benefit water and the producer.

Annika Bankston, Minneapolis Superintendent of Water Plant Operations & Maintenance, explained their surface water protection planning efforts. They have developed and are implementing a voluntary intake plan. They are concerned about acute pollution, but they have a spill response plan that enables them to react quickly to shut down intakes. Raising awareness in outlying areas about their concerns over sediment from bank erosion, runoff from manure, and urban stormwater impacts is a challenge. Minneapolis has a 10-year, joint powers agreement with St Paul and St Cloud to coordinate surface water protection efforts. She recommended that protecting drinking water supplies should be a component of One Watershed One Plan efforts.

Rep Fischer asked how much water supply is available if the intake is shut. Minneapolis retains a 2 day supply of water. They looked at drilling back-up wells, but felt it was better to reinvest in their existing system.

Rep Gruenhagen noted that since their system is over 100 years old, will they be installing the latest filtration technology. Ms Bankston indicated that they already do that; with each planned upgrade they look at the cost-benefit of new technologies. They have already added membrane filtration and granular activated carbon filters to their system. Rep Gruenhagen would advocate for exempting the prevailing wage as a way to help afford infrastructure upgrades.

Steve Robertson returned to discuss gaps and opportunities for a broader source water protection planning effort across the state. MDH has been actively mobilizing existing resources for over 20 years, but they have learned that water supplier engagement is uneven – not everyone is as proactive and prevention oriented as today's presenters. Most operators are mechanics and engineers who are not as equipped to deal with geology and planning issues. Jurisdictional issues remain. Funding for implementation grants is key. MDH is preparing Groundwater Restoration and Protection Strategies (GRAPS) for use in One Watershed One Plan or Local Comprehensive Water Plan development. They recently received Clean Water Fund money to proceed with voluntary surface water protection plans. All drinking water decisions are local.

The meeting adjourned at 12:54 p.m.