



Legislative Water Commission

Barb Huberty, Director

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July 18, 2017

Meeting Minutes

Members Present:

House

Representative David Bly
Representative Peter Fischer
Representative Clark Johnson

Senate

Senator Rich Draheim
Senator Kent Eken
Senator Bill Weber
Senator Charles Wiger

Members Excused:

Senator Paul Anderson
Senator Jason Isaacson

Representative John Poston
Representative Paul Torkelson
Representative Glenn Gruenhagen

The meeting convened at 10:10 a.m. on July 18, 2017; a quorum was not present.

Director Huberty gave an overview of the meeting plan for the remainder of 2017, a review of the meeting packet materials, and an explanation of the format for this meeting.

The presenter for this meeting was Shannon Lotthammer, Environmental Analysis and Outcomes Division Director for the MN Pollution Control Agency (MPCA). After sharing her professional background, Ms Lotthammer began explaining how water quality standards are developed in MN, starting with the regulatory framework. The Federal Clean Water Act (CWA) governs the establishment of water quality standards by one of two pathways: via addressing pollution sources (the permitting process) or via addressing the conditions of the water body (the Total Maximum Daily Load [TMDL] process). In the early days of standards development, more was known about pollution sources, so the focus was on pollution from them. As more data has become available about water bodies, following the TMDL process has become more prominent. In either approach, water quality based standards are set based on the designated beneficial use of water body, whether or not technology is available to deal with the pollutant source.

Under the CWA, the Environmental Protection Agency (EPA) is responsible for providing guidance and criteria to states to develop standards. They produce a standards development manual and train state staff. EPA does not develop standards and their guidance is not enforceable. States review the guidance

in the context of local conditions. For instance, there are federal human health criteria for fish consumption, but because Minnesotans have higher rates of fish consumption, the criteria for MN are adjusted accordingly. Similarly, EPA has toxicity guidance for fresh and salt water, but MN only applies the guidance related to fresh water.

It is up to the states to adopt water quality standards and if states fail to do so, EPA can intervene. What stops MN from letting EPA develop standards is the desire to manage the state's destiny and to insure continued federal funding and delegated permitting authority. There are 2 challenges to MN's delegated authority at this time: one for managing mining permits by Water Legacy and a 2009 petition by the MN Center for Environmental Advocacy regarding the River Eutrophication Standards. When EPA is in charge, instead of states, states can expect a slower process. Even with MPCA as the delegated lead, EPA can still review and object to every permit.

Some tribal governments can also adopt water quality standards. In MN, the Fond du Lac and Grand Portage bands have that authority and some others are working to obtain it. Where tribes lack authority, EPA manages the standards processes.

EPA has promulgated one or more standards in 28 states, including MN where EPA developed the bacteria standard for the Great Lakes in the 1990's because MN disagreed with the form and applicability of the standards. In 2015, MN adopted the bacteria standard.

As per the CWA, MPCA undergoes a triennial review of its standards to set priorities to set new or update old standards.

The CWA amendments of 1990 set additional requirements for the Great Lakes states to provide more consistency across the Great Lakes Basin and to address bio-accumulative pollutants. This is why Lake Superior has a different mercury standard than the rest of the state.

Minnesota's statutory provisions for water quality predate the CWA. Rules related to water quality standards can be found in MN Rules Ch 7050 (all other standards), Ch 7052 (Great Lakes standards), and Ch 7053 (implementing standards through permits). MN has about 140 standards for individual chemicals and protective statements.

Rep Johnson had three issues.

1. He noted that state agency refer to having water that is safe for fishing, swimming and drinking, but feels that the "drinkable" goal is a stretch for most MN waters. Ms Lotthammer said this is associated with beneficial use criteria, which will be discussed in the next section.
2. He then asked whether the standard for nitrate in drinking water was a federal standard. Ms Lotthammer explained that the CWA primarily addresses surface water quality and that EPA does set drinking water standards as per the Safe Drinking Water Act (SDWA). MN has incorporated the federal SDWA standards into its water quality standards where groundwater or surface water is used for drinking.
3. Have there been any petitions to change the nitrate standard for drinking water? Ms Lotthammer was not sure if there has been such a petition (the MN Dept of Health manages drinking water standards). The current 10 mg/L standard for nitrate is to protect drinking water. There is no nitrate standard yet for protecting aquatic life. In the early 2,000's, the Legislature directed MPCA to develop a nitrate standard for aquatic life and developed the technical support document for it. At that point, EPA said they were working on new nitrate studies and

that MPCA should wait on standards development until their studies were completed; those studies are still in progress.

Rep Fischer asked if any federal review of permits resulted in their rejection. MPCA will be discussing permits at the August LWC meeting and will pull together examples of EPA actions on permits. Usually, EPA comments trigger a discussion which resolves issues before permits are issued.

With a quorum now being present, the meeting was called to order at 10:47 a.m. Sen Weber moved approval of the June 15, 2017 minutes with one correction: his title needed to be changed from Rep to Sen on p. 2. Rep Johnson seconded the motion. THE MOTION PREVAILED.

Ms Lotthammer resumed her presentation, noting that water quality standards represent the nexus of science (protection) with policy (public value). She then explained how Minnesota's beneficial use categories are applied to MN waters. These classifications were established in 1967, prior to the CWA and they apply to over 12,000 lakes greater than 10 acres in size and about 105,000 miles of streams. The number for each beneficial use category is not hierarchical. A water body is either given a distinct category number or it defaults to uses 2-5. Not all water bodies have a beneficial use for drinking water ("drinkable") and most waters are designated for recreation and aquatic use ("swimmable" and "fishable"). However, some waters have physical limitations (such as ephemeral streams that lack water for a large part of the year), which do not even result in a "fishable, swimmable" beneficial use classification. Most water bodies are protected for uses 2-6; where there are multiple uses, there are often multiple standards that apply. Waters that are classified as drinkable are the Mississippi River upstream of intakes for St Cloud, Minneapolis, and St Paul, as well as all trout waters. Drinking water protections are tiered (e.g., for bacteria and giardia) and they account for natural conditions. A use classification can be changed through a "use attainability analysis" as more data becomes available and **accessible**. This process can take from months to years and the most typical change is moving a water body into the Class 7 category, limited resource value waters.

Ms Lotthammer said that standards can be numeric or narrative, but that it is harder to translate narrative standards into a permit's effluent limits (a tool by which standards are achieved). The development of water quality standards is a dynamic process, because knowledge changes over time. Better analytical technology is one reason knowledge improves, but having changing goals can create operational difficulties. MN is a highly diverse state with variable pollutant sources, water conditions and beneficial uses, and water body depths resulting in many standards and applications. MN adopted lake eutrophication standards to protect recreation many years prior to adopting the river eutrophication standards.

There is a third part to the development of standards, the anti-degradation standards, which are applied at the time of permitting, so will be discussed at the August meeting.

Rep Johnson asked if narrative standards are challenged. There have not been many challenges to the adoption of narrative standards; they are more often challenges when applied to permits. This happened with the development of the River Eutrophication Standard (RES). As the RES has been applied to permits, EPA's review comments to MN have included directions for MN to put in protections to meet the narrative standard for algae growth.

Rep Fischer commented on the groundwater-surface water connection and the sustainability of the entire water system and wondered how water quality standards apply to waters of the state, including groundwater. The MN Groundwater Protection Act covers groundwater and addresses contaminant site

remediation. MPCA will compare surface and groundwater quality when developing standards. Point source discharges to groundwater are not allowed. Drinking water regulations apply to finish (i.e., consumable) water, not raw water.

Sen Wiger asked whether all waters of the state have standards. Standards apply according to beneficial use classifications; where a water body lacks a designated beneficial use classification, it defaults to classes 2-5. The classifications apply to over 12,000 lakes and 105,000 stream miles. The application of beneficial uses plays out in the issuance of discharge permits. Sen Wiger asked about the data shown on slide 13; it was derived from available monitoring data. He then asked what the consequence was for violating a standard. If a water body is impaired, MPCA must prepare a TMDL study identifying the waste load allocation that applies to point sources, so enforcement becomes a permitting issue.

The Commission to a 5 minute recess, resuming at 11:28 a.m.

Ms Lotthammer explained that the standards development process is cyclical; standards are continually being refined or updated. As part of the Triennial Review process, last conducted in 2013, MPCA considers internal feedback, new data, EPA changes in guidance, and public comments. The primary objective of the review is to set priorities, but the work plan can change over the 3 year period for many reasons. MPCA posts an [Inventory of Water Quality Standards Projects](#) on their website. The next triennial review is set to go on public notice this coming fall/winter.

When developing MN standards, state-specific data may need to be gathered and analyzed and compared to reference standards. As an example, the legislature provided funding for data collection related to setting the wild rice sulfate standard – a 7 year process.

Peer review is part of the standards development process and it takes many forms. They may use EPA data that has undergone a peer review process, data published in peer-reviewed scientific journals, or use informal and formal peer review specific to a standard in development. MPCA prepares a Technical Support Document (TSD) that has traditionally been a support document for the rule making process. The MPCA Commissioner recently issued a staff directive, requiring staff to now release the TSD for formal public comment as a standard practice to reduce confusion and improve transparency. Additionally, the TSDs will undergo individual peer review.

Once the scientific basis for a standard has been prepared, then the Administrative Procedures Act (Ch 14) sets forth the process for rulemaking to adopt standards. The Statement of Need and Reasonableness (SONAR) is a regulatory analysis and supporting document that is put on public notice at the same time as its corresponding rule; both can be commented on. MPCA is trying to provide the SONAR earlier to improve the process. Determining the cost for implementing standards happens at the permit stage; cost is not a determinant in setting standards under the CWA. During the formal rulemaking process, a hearing before an administrative law judge (ALJ) can be requested by stakeholders or planned by MPCA staff. MPCA does not pick the ALJs, who are experts in law and not science, however, they do review the science and the rationale for decision making. EPA is also involved in the process; they have 30 days to approve and 60 days to disapprove. If they disapprove, the timeline for further action is variable. Judicial review can also happen if the court of appeals or supreme court are petitioned.

Rep Clark asked whether EPA has told MPCA they are not using enough science or peer review. EPA has not.

Next, Ms Lotthammer explained that standards are the goals to be met through the permitting effort. When developing effluent limits, the MPCA asks whether the facility will cause or contribute to a standard not being met. In other words, the water quality standard or goal is represented by the TMDL, which equates to contributions from point sources (waste load allocations) and nonpoint sources (load allocations). In cases where water body has quality better than the standard, then maintaining that high quality is the goal. This is accomplished through the anti-degradation review process, which looks at the receiving water's capacity for pollution. With the anti-degradation review, the social and economic value of degradation is evaluated when determining whether additional controls are needed. A standard doesn't always result in a permit requirement, if the facility doesn't need it to meet a water quality goal. MPCA has an effluent limit review process to determine specific permit needs; this may require obtaining facility and receiving water data. Even though there are 140 water quality standards, facilities are not being asked to monitor for 140 pollutants. They only monitor for what pollutants are reasonably expected, where there is analytical review capabilities, and what meets the local and state priorities. In general, monitoring of compounds associated with 6-10 standards is common.

Rep Fischer asked how standards impact new users when looking at the contribution from nonpoint and point sources. The analysis of what the facility is discharging relative to other contributing sources would be part of the effluent review process, using the waste load allocation and load allocations identified in an approved TMDL, if it exists. MPCA wants each pollutant contributor to manage their fair share; if a facility's discharges are already at capacity, then pollutant trading may be an option.

Rep Johnson indicated that in his District, cities are having minimal impacts but are incurring higher costs than nonpoint sources and wanted to know how MPCA reconciles that. When MPCA completes an effluent limit review, it doesn't just compare the total pollutant load of the facility, it also looks at timing issues, so the limits are applied differently across different flow regimes (e.g., during low flow times, the facility may have a higher proportional share of the pollutant load). They also account for nonpoint source loading, but there are no regulations for those sources under the CWA. MPCA does not feel that no regulation on nonpoint sources leads to over regulation of point sources. Rep Johnson is concerned that cities are asked to do very expensive upgrades for phosphorus for a very limited amount of time (when the river is low) and he would like to see some visuals that address this at the August meeting. MPCA responded that they don't require 12 months of control to get to the low flow limit. Rep Johnson wanted to know what the monetary value of the benefit is and how that is determined in comparison to the cost. Ms Lotthammer said the state is wrestling with those questions now, but feels it may not be a problem with the standard, rather with the implementation strategies. The ideas of schedules of compliance, variances and trading are rich areas for policy discussions. In other words, is MN applying the standards well via implementation?

There are some standards on the horizon: the revised wild rice sulfate standard, modernizing standards that apply to class 3 & 4 waters (agriculture and wildlife), class 1 (drinking water) rulemaking, and nitrate.

Rep Bly indicated that the pathways and approaches to clean water evolve over time and that prevention must be a component. He asked whether environmental changes and cumulative effects are being adequately addressed and whether changes are needed to address these going forward. Ms Lotthammer replied that standards are a foundations tool and not the best tool in every situation. The MPCA should evaluate whether standards development is a good use of their time or whether there is another approach that is more effective. For example, should contaminants of emerging concern (CEC) monitoring be pursued when there is no reliable treatment technology? In this case, CEC prevention may be a higher priority. Regarding cumulative effects, it is important to know what compounds are

being contributed by various sources at what locations and how they impact downstream uses. Administrative changes may also be necessary; if federal funding cuts are made, MPCA may need to reduce services or request more state funding.

The meeting adjourned at 12:28 p.m.

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