38118 Minnesota Pollution Control Agency Request for Comments

Closed Sep 15, 2022 · Discussion · 5 Participants · 1 Topics · 5 Answers · 0 Replies · 0 Votes

5	1	5	0	0
PARTICIPANTS	TOPICS	ANSWERS	REPLIES	VOTES

SUMMARY OF TOPICS

SUBMIT A COMMENT

5 Answers · 0 Replies

Important: All comments will be made available to the public. Please only submit information that you wish to make available publicly. The Office of Administrative Hearings does not edit or delete submissions that include personal information. We reserve the right to remove any comments we deem offensive, intimidating, belligerent, harassing, or bullying, or that contain any other inappropriate or aggressive behavior without prior notification.

Mike Boerboom · Citizen · (Postal Code: unknown) · Sep 01, 2022 6:33 am

0 Votes

September 1st 2022

Thank you for the opportunity to provide input on the MPCA feedlot water fee increases. We strongly disagree with the proposed fee increases.

Minnesota already has the highest fees of neighboring states along with some of the longest wait times for permit processing. We're already often at a competitive disadvantage and increasing fees would continue to deter the growth and diversification of family farms in Minnesota.

In most counties, county permitting fees are also assessed in addition to state fees, meaning we are paying duplicative fees in places where the county or the MPCA are providing service. We have experienced increased frustrations with the lack of knowledge and understanding of modern feedlots by those with the Minnesota Pollution Control Agency. With already the highest fees, it does not seem unreasonable to expect a higher level of service and background from those reviewing, inspecting, and enforcing permits. Yet, the agency seeks additional fee revenue with little evidence this would increase the value of service provided by the agency.

Doubling fees for renewals and creation of a gap site fee is unnecessary. Re-permitting requires very little review and there is no service provided for gap sites. It is frustrating to already pay the highest fees compared to neighboring state and now experience a doubling of fees when the cost of production for farms is already very high following many years of uncertainty in farming.

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Finally, because of our commitment to doing what is right on our farms and protecting the environment, we've demonstrated the integrity with which we operate our farms using modern technologies and barn designs to ensure we continue to protect the environment. Deep-pitted manure storage does not require the same kind of review as other feedlots.

We strongly oppose the proposed fee increases and implore the agency to further analyze its own processes for administering the feedlot programs, the entire permitting process, and their ability to provide customer service.

Regards,

Mike Boerboom
Boerboom Ag Resources
Marshall, MN

Elizabeth Wefel · Citizen · (Postal Code: unknown) · Sep 14, 2022 4:17 pm
0 Votes

Attached please find the comments of the Coalition of Greater MN Cities and supporting memorandum.

Cooper Silburn · Citizen · (Postal Code: unknown) · Sep 15, 2022 1:17 pm
0 Votes

Thank you for the opportunity to comment on these proposed amendments. Attached please find comments from the Minnesota Environmental Science and Economic Review Board and supporting technical memorandum.

Eric Lindberg · Citizen · (Postal Code: unknown) · Sep 15, 2022 2:17 pm
0 Votes

Attached please find comments on behalf of Minnesota Center for Environmental Advocacy and Friends of the Mississippi River.

Michelle Woods · Citizen · (Postal Code: unknown) · Sep 15, 2022 3:09 pm
0 Votes

Attached please find comments on behalf of the U.S. Environmental Protection Agency, Region 5.

RECEIVED
By: OAH on 09/14/22 at 4:17pm
Elizabeth Wefel Attachment 1

COALITION OF GREATER MN CITIES

DEDICATED TO A STRONG GREATER MINNESOTA

September 14, 2022

VIA OAH e-comments

Administrative Law Judge Jessica Palmer-Denig
Office of Administrative Hearings
600 North Robert Street
P.O. Box 64620
St. Paul, Minnesota 55164

RE: Comments on Possible Amendments to the Class 2 Aquatic Life Ammonia Standard Rule

Dear Judge Palmer-Denig,

I am writing on behalf of the Coalition of Greater Minnesota Cities (CGMC) in response to the request for comments on potential amendments to the Class 2 Aquatic Life Ammonia Standard Rule. The CGMC is a nonprofit, nonpartisan advocacy organization representing more than 100 cities outside of the Twin Cities metropolitan area and is dedicated to developing viable, progressive communities through strong economic growth and local government. Because every CGMC member city will be affected by amendments to the Class 2 Aquatic Life Ammonia Standard Rule, we appreciate the opportunity to provide comments.

Cities play an essential role in protecting Minnesota's waters, primarily through their wastewater systems. Our cities take great pride in this work and are committed to doing their part to ensure our waters are clean and protected. However, it becomes increasingly expensive to keep Minnesota's waters clean as infrastructure ages and the regulatory burden expands. It is therefore essential that water quality standards, such as the Class 2 Aquatic Life Ammonia Standard, be grounded in peer reviewed science and be designed so that complying with the standard will benefit the environment. We are concerned that the proposed amendments lack the flexibility seen in the Environmental Protection Agency's criteria on the same pollutant and could require expensive upgrades that do not help the environment.

We collaborated with the Minnesota Environment Science and Economic Review Board (MESERB) to hire an experienced technical expert, Hall & Associates, to analyze and provide more technical feedback on the draft standards. Their memorandum ("Hall & Associates Memorandum") is attached and supports our comments below. This letter highlights two of the several concerns raised in the memorandum.

MPCA Should Adopt EPA's Flexible Approach

The proposed ammonia water quality standards are modeled on federal water quality criteria which are designed to protect a species of mussels. The EPA recognized, however, that not all water contains these mussels or create conditions where they could live even if ammonia was not present. As a result, the federal version of these proposed rules provides alternatives for those situations and includes procedures for calculating site-specific criteria where needed.[1]

Our concern is that by failing to adopt the flexibility contained in the federal rule, many cities could end up with overly restrictive limits in their wastewater permits, aka, National Pollutant Discharge Elimination System ("NPDES") permits. These limits would protect aquatic life that does not or cannot exist in the receiving waters,

[1] Hall & Associates Memorandum at 2-3

regardless of the ammonia levels. In other words, cities would be required to spend millions upgrading their facilities without benefiting the environment.

Many of our cities are already facing expensive upgrades due to aging infrastructure and changing regulatory requirements, and these costs have been escalating due to inflation. Our cities financial resources are not limitless, and those resources should be focused on addressing the most pressing water quality challenges. Given these unprecedented challenges, it is essential that the amended rules be designed to impose limits only when necessary to protect aquatic life. To achieve this, the Minnesota Pollution Control Agency (MPCA) should include the flexibility and site-specific analysis contained in the federal rules.

Procedures For Determining Presence of Affected Mussels Should Be Developed

As noted above, the MPCA's proposed amendments are based on criteria that protects a species of mussels. The rules assume that all Class 2 waters either contain those mussels or that the mussels could survive if ammonia levels are below the specified threshold. The problem with that approach is that a variety of factors, apart from the presence of ammonia, could preclude the existence of those mussels.[2] The MPCA must develop site specific factors to determine the presence of mussels in Class 2 waters, and if mussels are found to be present, then the MPCA should align its criteria with the EPA and provide site specific alternatives and solutions. There is no practical reason to diverge from the EPA's standards on this issue.

Thank you for your time and consideration. If you have any questions, please contact me at mayorholmer@citytrf.net and copy our legal representative, Elizabeth Wefel at eawefel@flaherty-hood.com.

Sincerely

Brian Holmer
President, Coalition of Greater Minnesota Cities
Mayor, Thief River Falls

[2] Id at 3

RECEIVED
By: OAH on 09/14/22 at 4:17pm

Request for Comments

Possible Amendments to Rules Governing Water Quality Standards, Minnesota Rules, Chapters 7050 and 7053

Revisor's ID Number R-04737
OAH Docket No. 71-9003-38118

The Minnesota Pollution Control Agency has requested comments on possible amendments to rules governing water quality standards (Minnesota Rules, Chapters 7050 and 7053; Revisor's ID Number R-04737; OAH Docket No. 71-9003-38118). Background information of the proposed amendments is provided in "Aquatic Life Water Quality Standards for Ammonia: Draft Technical Support Document" (wq-rule4-25b, July 2022). As described in the Technical Support Document (hereafter, TSD), the MPCA is proposing to update its existing water quality standard (WQS) for ammonia by adopting some (but not all) aspects of the national recommended ambient water quality criteria for ammonia provided by the U.S. Environmental Protection Agency (EPA, 2013). In general, the criteria are much more restrictive than the existing water quality criteria that have protected state waters for approximately 40 years and controlled the design of municipal wastewater facilities. This criteria update, if adopted as proposed, will have a major economic impact on smaller communities and others using ammonia removal technologies that are sensitive to cold weather conditions prevalent in Minnesota (e.g., tricking filters, ponds and certain activated sludge systems). However, the environmental benefit associated with this update is uncertain.

Whereas the existing WQS for ammonia is a chronic criterion based on a fixed concentration of un-ionized ammonia (MAR 7050.0220 provides a chronic un-ionized ammonia criterion of 16 µg/L for the protection of cold water aquatic life (e.g. salmonids) and a chronic un-ionized ammonia criterion of 40 µg/L for the protection of cool and warm water aquatic life),

the proposed criterion implements acute and chronic criteria specifically for the protection of sensitive freshwater mussels (unionids) and aquatic snail with or without salmonids present. The existing criteria have generally allowed significantly less restrictive ammonia limitations in the winter months (November -March) when ammonia removal is more difficult to accomplish with biological treatment processes. These revised criteria are significantly more restrictive than the existing state standard, particularly at lower pH values and cold temperatures. On review of the TSD, we have the following preliminary feedback on the proposed water quality criteria for ammonia-nitrogen.

Comments

- **Proposed Criteria are Incomplete**

As discussed in the TSD, the proposed ammonia WQS were based on Aquatic life ambient water quality criteria for ammonia – freshwater. (USEPA, 2013a; EPA-822-R-13-001). The 2013 EPA Ammonia Water Quality Criteria are based on the protection of sensitive unionid mussels. However, these criteria also include alternative expressions for situations where unionid mussels do not require protection because they are not present and/or are unlikely to live in the receiving water even if ammonia concentrations are sufficiently low. The EPA document, "Flexibilities for States Applying EPA's Ammonia Criteria Recommendations" (USEPA, 2013b, 2013; EPA-820-F-13-001) notes:

> In the case of ammonia, where a state can demonstrate that mussels are not present on a site-specific basis, the Recalculation Procedure may be used to remove the mussel species from the national criteria dataset to better represent the species present at the site. (at 2)

The 2013 EPA Ammonia Water Quality Criteria document further includes procedures for calculating site-specific criteria for ammonia. (See, USEPA, 2013a, Appendix N). This appendix presents alternative equations to calculate acute and chronic aquatic life criteria for

circumstances where unionid mussels are absent. The TSD notes (at 9) that freshwater mussels declined in both abundance and diversity over the past century due to dam construction, stream channel modification, sedimentation, chemical pollutants, overharvesting, and invasive fauna (DNR, 2022b). Moreover, it is not apparent that such mussels would inhabit intermittent streams. Thus, there are multiple reasons why sensitive mussels may not be resident in a stream or lake that are unrelated to ammonia concentration and cannot be remedied by reducing ambient concentrations of ammonia. In these situations, the Agency should not be imposing restrictive ammonia WQC intended to protect organisms unable to propagate in such waters. If the 2013 EPA Ammonia WQC are adopted into state law, they should be adopted in their entirety, and allow communities to determine whether such mussels would not reasonably be present in the receiving water prior to imposing more restrictive ammonia limitations that would cause major economic impacts on communities for facility upgrades.

- **Determination of Waters Supporting Unionid Mussels Needed**

As noted in the TSD (at 9), freshwater mussels may be precluded from living in a stream or lake due to a multitude of factors. Some of these may be due to natural habitat considerations while others are due to anthropogenic habitat modification, competition with invasive species, climate change, etc. A particular location of a discharge in a stream or lake may pose no actual threat or impact on mussel populations – should they exist in such waters. The Agency should be responsible for developing procedures for assessing whether unionid mussels are present or should be present in a receiving water and these methods should be available to the public for review and comment before they are adopted. In addition, the Agency should be responsible conducting surveys to determine in which waters sensitive mussel species are present or should be present.

- **Chronic Criteria During Winter Conditions**

In discussing the proposed chronic criteria, the TSD makes the following statement:

> Because the lowest GMCVs in the sensitivity distribution for chronic toxicity are again for freshwater Unionid mussels, calculated CCC values are both pH- and temperature-dependent – except below a temperature threshold of 7.0°C, when the early life stages of temperature-invariant Lepomis fish (namely bluegill, Lepomis macrochirus) become most sensitive.

(TSD at 13) (emphasis added)

Winter conditions in Minnesota would generally create surface water temperatures well below 7.0°C (45°F). Many smaller streams are frozen virtually solid in the winter month of Late-December through February. Information provided by the Minnesota DNR on its website states that bluegills spawn from "late May through much of the summer in water temperatures of 67 – 80 °F". It is not apparent that early life stages of bluegills or any other sensitive organisms are present in Minnesota waters in the middle of winter when most waters are covered with ice and critical flows tend to be the lowest. The Agency should review whether alternative chronic criteria should apply during these conditions. At a minimum, less restrictive requirements should be applicable during this period.

- **Procedures for Implementing New WQC in WQBELs must be Defined**

The draft criteria proposed by the Agency will result in ammonia criteria significantly more restrictive than the current criteria, particularly at pH levels below 7.5. This will be problematic especially for facilities that do not typically nitrify (e.g., pond systems) or mechanical plants (e.g., trickling filters, oxidation ditches with surface aerators) that do not routinely nitrify during cold weather conditions. These types of facilities will potentially face multi-million-dollar upgrades to achieve the level of treatment that will be required if this rule change is approved. To ensure that limited municipal resources are spent properly, the

conservative assumptions that have been typically used in deriving water quality-based effluent limits (WQBELs) need to be reviewed and corrected if they result in effluent limits that cannot be met with the current treatment technology. These include careful consideration of effluent flow, stream flow, mixing allowances, and their associated pH and temperature conditions on a monthly basis.

- **Monthly Effluent Limits**

The revised ammonia criteria include criteria adjustments based on pH and temperature. Since temperatures of the effluent and receiving water vary over the year, effluent limitations must be based on the temperature and pH expected to occur during a given month. Consequently, ambient and effluent pH and temperature conditions must be defined for each month of the year, with expected conditions at the edge of the acute and chronic mixing zone during critical conditions. Critical conditions (i.e., 1Q10 flow, 30Q10 flow) must be defined along with the pH and temperature at the edge of the respective mixing zones so that the appropriate ammonia criteria can be calculated.

- **Critical Stream Flow**

Monthly critical stream flows need to be developed in order to calculate revised ammonia criteria as discussed above. The typical approach used by MPCA is to evaluate USGS stream flow data for the entire period of record to determine the critical flow rate. This approach presumes that the entire record is relevant to estimating critical flow conditions over the next permit cycle or two. However, in this age of climate change, earlier portions of the record may not be relevant. Numerous studies on Minnesota climate have confirmed increased average rainfall over a wide portion of the state. For example, web-based information provided by the Minnesota DNR on Climate Trends provides the following:

> Minnesota has warmed by 3.0 degrees F between 1895 and 2020, while annual precipitation increased by an average of 3.4 inches. Although Minnesota has gotten warmer and wetter since 1895, the most dramatic changes have come in the past several decades. Compared to 20th century averages, all but two years since 1970 have been warm, wet, or both, and each of the top-10 combined warmest and wettest years on record occurred between 1998 and 2020. Although climate conditions will vary from year to year, these increases are expected to continue through the 21st century.

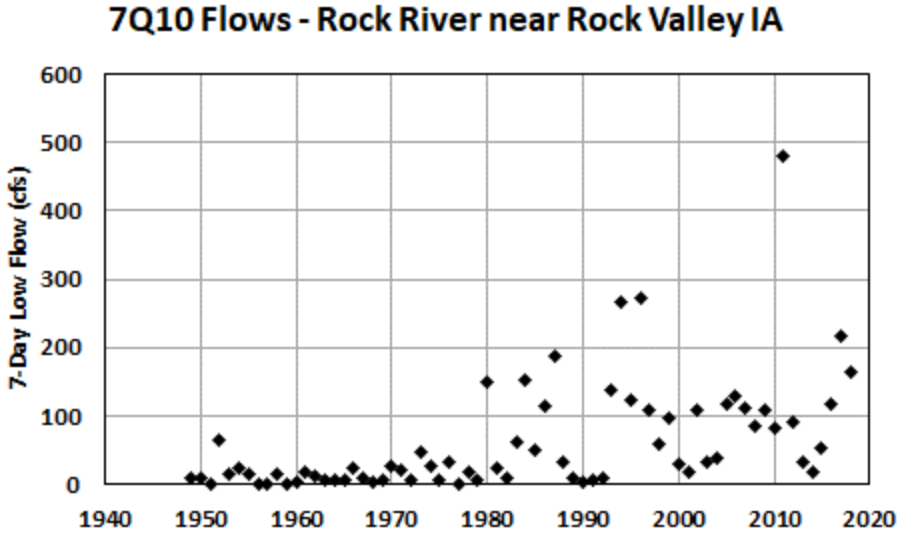
This increased rainfall has generally raised minimum flows and decreased their likelihood of occurrence. In addition, other systemic factors may cause a fundamental change in the hydrology of the stream resulting in critical flow conditions unrelated to historic levels. A classic example of this latter situation is the installation of a dam with controlled water releases. Other factors, such as crop conversion (which can induce significant changes in seasonal evapotranspiration) and increases in artificial drainage, which typically accompanies crop conversion, through the installation of tile drains can similarly affect hydrology. (Schottler et al. 2013)[1].

Consider, for example, the flow in the Rock River, which is used as the basis to evaluate dilution flows for the City of Luverne WWTP. The water year (April – March) annual 7-Day average low flow in the Rock River near Rock Valley, IA are used to set critical conditions for the development of water quality-based effluent limits in NPDES permits for the WWTF. In the most recent round of permitting, MPCA developed a critical flow in the Rock River at Luverne, MN using the complete data set for river flow (1948 – 2018). The 7Q10 flow for this period of record is 0.5 cfs. The entire historical record should not be used to project future critical flow conditions because the record shows that future flows are not expected to be as low as projected

[1] Schottler S.P., Ulrich J., Belmont P., Moore R., Lauer J.W., Engstrom D.R., and Almendinger J.E. 2013. Twentieth century agricultural drainage creates more erosive rivers. Hydrol. Process. (2013) (wileyonlinelibrary.com) D0I: 10.1002/hyp.9738.

due to fundamental changes in the watershed as evidenced by the low flow records which changed dramatically after 1979 (Figure 1).

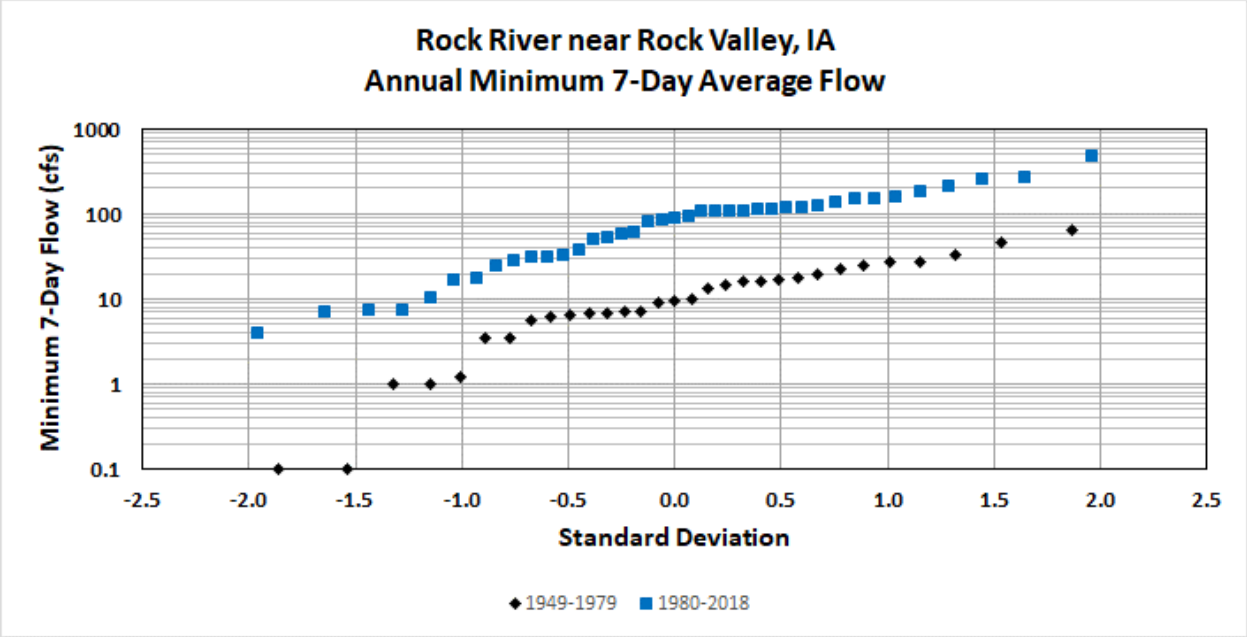
Figure 1 – Annual 7-Day Average Low Flow



Inspection of Figure 1 shows a significant change in flow pattern between 1949-1979 and 1980-2018. If the data for the two periods are evaluated using a statistical distribution of the 7-Day average low flows for each water year, it is apparent that the critical low flow has increased by an order of magnitude between the two periods. (Figure 2). As illustrated below, the critical flow conditions for future permits may be substantially greater than the 7Q10 flow calculated for the entire period of record. If the standard critical flow (calculated using the entire period of record) results in ammonia criteria that will impose substantial treatment expansion requirements on a facility, but the recent period of record suggest that the critical flow is significantly higher and would not impose substantial treatment expansion requirements if used as the basis for effluent limit development, the Agency should reconsider its approach. It would be a waste of scarce municipal funds for MPCA to require a facility expansion to meet the new ammonia criteria if this requirement was solely due to an antiquated approach to establishing critical

conditions even though data are available to show that restrictive ammonia WQBELs are not necessary.

Figure 2 – Statistical Plot of Annual 7-Day Low Flows



- **Effluent Flow**

Water quality-based effluent limits are typically based on average dry weather and average wet weather design flows. However, these flows are not relevant to critical low flow conditions used to develop permit limits, particularly during winter months when municipal water usage and collection system infiltration is at a minimum. Monthly ammonia WQBELs should be developed based on the critical flow expected to occur during each specific month and the corresponding effluent flow expected to occur when the receiving water is at the critical flow.

- **pH and Temperature Calculations**

The calculation of monthly WQBELs is based on pH and temperature conditions at the edge of the acute and chronic regulatory mixing zones, after mixing. This requires accurate

calculation of pH and temperature after the effluent mixes with the receiving water. While temperature may be calculated as a simple mass balance, it is subject to decay as the plume is conveyed downstream. Similarly, the mixed pH may be calculated as a mass balance of hydrogen ions in the effluent and receiving water, but the actual pH is dependent upon the buffering capacity of the effluent and receiving water. The Agency needs to develop procedures to account for these factors. As pH effects the applicable criteria, it will be essential to accurately reflect the relevant pH during the period when more restrictive limitations will be imposed during winter months.

- **Intermittent Dischargers and Class 7 Waters**

The chronic ammonia criterion is presented in the TSD as a 30-day rolling average (at 13), and the 4-day chronic criterion is based off the 30-day standard. Pond treatment facilities are typically intermittent dischargers that discharge for less than 30 days. The Agency needs to propose how it intends to develop chronic criteria for such facilities and properly account for conditions when pond discharge is not anticipated (e.g., often during winter months). The WQBEL for such facilities must make adjustments to account for the days in the 30-day rolling average when the discharge is zero.

For Class 7 steams, it is presumed that the more restrictive criteria will not apply but will come into effect at the confluence of downstream waters that may support the sensitive species. Accounting for the increased dilution and any pollutant losses prior to mixing with the downstream waters will be necessary to avoid imposition of unnecessarily restrictive limitations.

- **Toxicity Reduction through Effluent pH Control**

The proposed ammonia criteria are extremely sensitive to the pH at the edge of the acute and chronic mixing zones. Facilities should be encouraged to consider pH adjustment of their

effluents as a means for relaxing the ammonia criterion if such adjustment is sufficient to allow compliance without the need for more expensive treatment upgrades to ensure compliance.

- **Mixing Zones for Ponds and Lakes**

Mixing zone are restrictive for pond and lake environments, even though dilution is available in such waters. Municipal effluents are typically warmer than the ambient waters and therefore the plume will rise upon discharge. Consequently, the plume will not come into contact with organisms living in the sediment or in the water column but below the plume. In such circumstances, mixing should be allowable at least during winter months, which could eliminate the need for increased ammonia reduction during this period. Applicable mixing zone rules should be amended to allow this to occur, at least on a case-by-case basis, as the more restrictive mixing zone requirement is not needed in this situation.

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By: OAH on 09/15/22 at 1:17pm
Cooper Silburn Attachment 1

Request for Comments

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Revisor's ID Number R-04737
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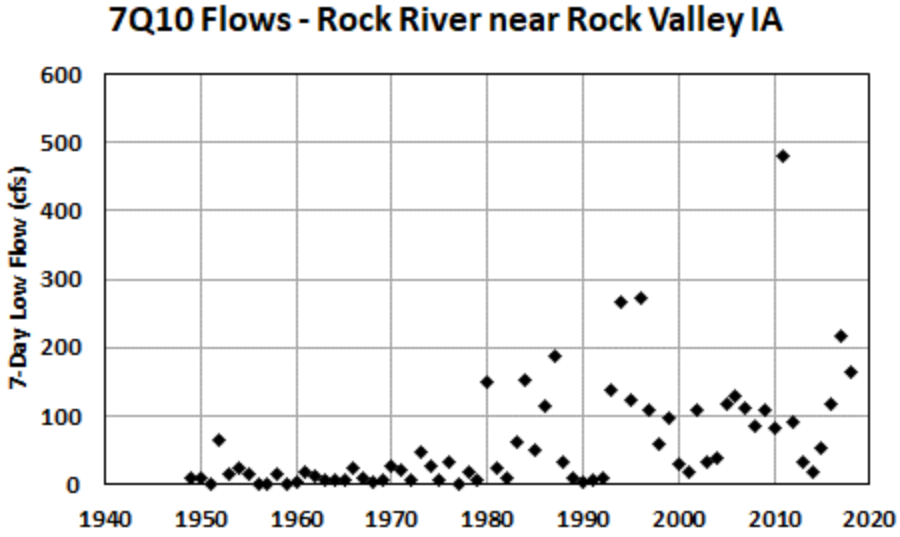
due to fundamental changes in the watershed as evidenced by the low flow records which changed dramatically after 1979 (Figure 1).

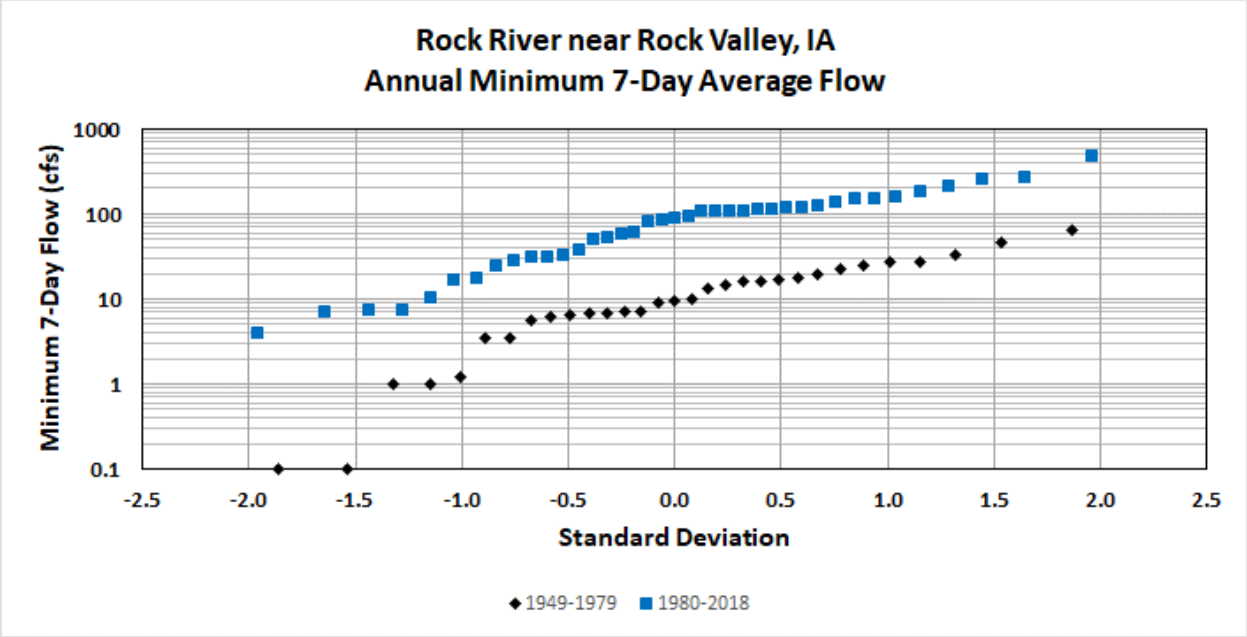
Figure 1 – Annual 7-Day Average Low Flow



Inspection of Figure 1 shows a significant change in flow pattern between 1949-1979 and 1980-2018. If the data for the two periods are evaluated using a statistical distribution of the 7-Day average low flows for each water year, it is apparent that the critical low flow has increased by an order of magnitude between the two periods. (Figure 2). As illustrated below, the critical flow conditions for future permits may be substantially greater than the 7Q10 flow calculated for the entire period of record. If the standard critical flow (calculated using the entire period of record) results in ammonia criteria that will impose substantial treatment expansion requirements on a facility, but the recent period of record suggest that the critical flow is significantly higher and would not impose substantial treatment expansion requirements if used as the basis for effluent limit development, the Agency should reconsider its approach. It would be a waste of scarce municipal funds for MPCA to require a facility expansion to meet the new ammonia criteria if this requirement was solely due to an antiquated approach to establishing critical

conditions even though data are available to show that restrictive ammonia WQBELs are not necessary.

Figure 2 – Statistical Plot of Annual 7-Day Low Flows



- **Effluent Flow**

Water quality-based effluent limits are typically based on average dry weather and average wet weather design flows. However, these flows are not relevant to critical low flow conditions used to develop permit limits, particularly during winter months when municipal water usage and collection system infiltration is at a minimum. Monthly ammonia WQBELs should be developed based on the critical flow expected to occur during each specific month and the corresponding effluent flow expected to occur when the receiving water is at the critical flow.

- **pH and Temperature Calculations**

The calculation of monthly WQBELs is based on pH and temperature conditions at the edge of the acute and chronic regulatory mixing zones, after mixing. This requires accurate

calculation of pH and temperature after the effluent mixes with the receiving water. While temperature may be calculated as a simple mass balance, it is subject to decay as the plume is conveyed downstream. Similarly, the mixed pH may be calculated as a mass balance of hydrogen ions in the effluent and receiving water, but the actual pH is dependent upon the buffering capacity of the effluent and receiving water. The Agency needs to develop procedures to account for these factors. As pH effects the applicable criteria, it will be essential to accurately reflect the relevant pH during the period when more restrictive limitations will be imposed during winter months.

- **Intermittent Dischargers and Class 7 Waters**

The chronic ammonia criterion is presented in the TSD as a 30-day rolling average (at 13), and the 4-day chronic criterion is based off the 30-day standard. Pond treatment facilities are typically intermittent dischargers that discharge for less than 30 days. The Agency needs to propose how it intends to develop chronic criteria for such facilities and properly account for conditions when pond discharge is not anticipated (e.g., often during winter months). The WQBEL for such facilities must make adjustments to account for the days in the 30-day rolling average when the discharge is zero.

For Class 7 steams, it is presumed that the more restrictive criteria will not apply but will come into effect at the confluence of downstream waters that may support the sensitive species. Accounting for the increased dilution and any pollutant losses prior to mixing with the downstream waters will be necessary to avoid imposition of unnecessarily restrictive limitations.

- **Toxicity Reduction through Effluent pH Control**

The proposed ammonia criteria are extremely sensitive to the pH at the edge of the acute and chronic mixing zones. Facilities should be encouraged to consider pH adjustment of their

effluents as a means for relaxing the ammonia criterion if such adjustment is sufficient to allow compliance without the need for more expensive treatment upgrades to ensure compliance.

- **Mixing Zones for Ponds and Lakes**

Mixing zone are restrictive for pond and lake environments, even though dilution is available in such waters. Municipal effluents are typically warmer than the ambient waters and therefore the plume will rise upon discharge. Consequently, the plume will not come into contact with organisms living in the sediment or in the water column but below the plume. In such circumstances, mixing should be allowable at least during winter months, which could eliminate the need for increased ammonia reduction during this period. Applicable mixing zone rules should be amended to allow this to occur, at least on a case-by-case basis, as the more restrictive mixing zone requirement is not needed in this situation.

RECEIVED
By: OAH on 09/15/22 at 1:17pm
Cooper Silburn Attachment 2

MESERB
Minnesota Environmental Science and Economic Review Board
Using science and economics to improve environmental regulations

September 15, 2022

Administrative Law Judge Jessica Palmer-Denig
Minnesota Office of Administrative Hearings
600 Robert St N
St Paul, MN 55164

VIA OAH e-comments

RE: REQUEST FOR COMMENTS on Possible Amendments to the Class 2 Aquatic Life Ammonia Standard Rule

Judge Palmer-Denig,

Thank you for the opportunity to comment on the Minnesota Pollution Control Agency's ("MPCA" or "the agency") possible amendments to the Class 2 Aquatic Life Ammonia Standard Rule.

I am writing on behalf of the Minnesota Environmental Science and Economic Review Board ("MESERB"). MESERB is a municipal joint powers organization with nearly 60 members, including cities, sanitary districts, and public utilities commissions in Greater Minnesota, that own and operate wastewater treatment facilities that stand to be impacted by the proposed rule amendments. MESERB works to protect Minnesota's water resources by ensuring that water quality regulations that impact our communities are based in science, have reasonable and cost-effective implementation strategies, and produce meaningful benefits to water quality.

MESERB's initial high-level comments are below and supported by the attached technical memorandum from Hall & Associates, a law and technical consulting firm with more than 40 years of experience in Clean Water Act regulatory matters, including water quality criteria and standards development and National Pollutant Discharge Elimination System (NPDES) permitting. In summary, we are concerned that the proposed criteria could be prohibitively expensive to comply with, that MPCA has not adopted the Environmental Protection Agency's (EPA) full standards on this issue, that the criteria assume that unionid mussels are ubiquitous in all class 2 waters in the state, and that we have not yet seen a detailed economic analysis of the proposed criteria. In addition to comments written here, MESERB supports the scope of Hall & Associates' technical memorandum, including their comments concerning chronic criteria during winter conditions and comments detailing the procedures for implementing and defining new water quality criteria in water quality-based effluent limits.

The proposed criteria could have multi-million dollar impacts on smaller communities whose facilities do not currently remove ammonia.

The proposed changes to the ammonia criteria are clearly more restrictive than the existing state criteria.[1] This will be most problematic for communities that operate pond systems and mechanical plants that do not typically nitrify (remove ammonia).[2] Many of these facilities may receive new permit limits as result of the proposed amendments to the criteria that could necessitate multi-million dollar upgrades and put significant pressure on residents and business and the state's wastewater infrastructure funding programs.[3]

[1] Hall & Associates at 4
[2] Id
[3] Id

Because of the potential cost impacts for local governments, MPCA should also adopt EPA-approved methods to ensure flexibility and site-specific implementation options for local governments.
As noted above, MPCA proposed amendments to the ammonia criteria are more restrictive than the existing state standard. MESERB understands that, in part, this more restrictive approach is required by and is consistent with EPA's 2013 criteria; however, it appears MPCA is proposing only to adopt the more restrictive components of EPA's criteria without also adopting EPA's recommended approaches for providing flexibility and site-specific approaches as found in EPA's complete ammonia criteria update as adopted in 2013 and the document entitled "Flexibilities for States Applying EPA's Ammonia Criteria Recommendations" (USEPA, 2013b, 2013; EPA-820-F-13-001).[4] For example, adopting EPA's criteria in its entirety would allow for site-specific evaluations to determine whether the most sensitive aquatic species (i.e. mussels) are present and impacted by a particular wastewater discharge, and if not, it would allow MPCA to provide additional flexibility for municipal facilities. [5]

It is unreasonable for MPCA to adopt the more restrictive components of EPA's updated criteria, and not also adopt the EPA's approved approaches to providing flexibility and site-specific approaches that will ensure necessary environmental protection and the efficacious use of limited state and local resources.

Determination of waters supporting unionid mussels is needed
Further, in the possible amendments, MPCA assumes that the aquatic life that are most sensitive ammonia (unionid mussels) are found in all Class 2 waters in the state.[6] However, freshwater mussels may be precluded from living in a stream or lake due to numerous factors.[7] Rather than making a categorical assumption as MPCA does, MPCA should develop and adopt procedures for determining whether mussels are present before placing more restrictive and expensive limits in city permits. Those procedures should be made available for public review and comment prior to adoption.

MPCA should provide a detailed economic analysis and develop procedures for implementing the new criteria.
As noted above, the proposed criteria are significantly more restrictive than the current criteria, and this could result in significant economic burdens for smaller communities and the states infrastructure funding programs. As a result, MPCA should perform a detailed economic analysis as a part of the rulemaking process to identify the likely impacts of the rule (i.e., what facilities will likely get new limits), and the potential costs impacts for individual communities and the state's funding programs that will result from the new rules.[8] Additionally, when MPCA develops the Statement of Need and Reasonableness (SONAR) for the formal rulemaking, it should also develop procedures for performing reasonable potential analyses for purposes of determining what facilities will receive new or more restrictive permit limits and for calculating specific limits. Doing so ensures transparency and an opportunity for the regulated community to comment on the how the criteria will be implemented.

Thank you again for the opportunity to comment on this matter. Please also refer to and respond to the attached technical comments from Hall & Associates. We look forward to further engagement in this rulemaking process.

[4] Id at 2-3
[5] Id
[6] Id at 3-4
[7] Id
[8] Id at 4-5

Respectfully submitted,

Josh Gad
MESERB President
WRRF – Superintendent
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RECEIVED
By: OAH on 09/15/22 at 2:17pm
Eric Lindberg Attachment

September 15, 2022

Claudia Hochstein
Minnnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55055-4194

Via OAH Comments Portal

RE: Request for Comments on Possible Amendments to Rules Governing Water Quality Standards, use classification 2, ammonia, Minnesota Rules, chapters 7050 and 7053.
Revisor's ID Number: R-04737
OAH Docket No. 71-9003-38118

Dear Ms. Hochstein:

The Minnesota Center for Environmental Advocacy ("MCEA") is a nonprofit environmental advocacy organization with offices in St. Paul and Duluth. Since 1974, MCEA has defended Minnesota's natural resources, water, air and climate, and the health and welfare of Minnesotans. MCEA is driven by the principle that everyone has a right to a clean and healthy environment, and that decisions must be based on fact, science, and the law.

Friends of the Mississippi River ("FMR") engages people to protect, restore, and enhance the Mississippi River and its watershed in the Twin Cities region.

MCEA and FMR submits these comments in response to the Minnesota Pollution Control Agency ("MPCA") request for comments on proposed changes to water quality standards ("WQS") as referenced above.

1. MCEA and FMR support MPCA's proposal to amend the Class 2 Ammonia/Ammonium Standard with the EPA ammonia water quality guideline

MCEA and FMR support the MPCA's adoption of federal EPA water quality guidelines for ammonia. The EPA ammonia water quality guidelines include considerations for both temperature and pH within a freshwater environment. With a changing climate and varied climatic conditions throughout the state of Minnesota, temperature and pH will be important parameters for MPCA to consider and monitor when establishing permit limits for ammonia in discharges.

The EPA has been developing ammonia criteria for aquatic life since 1976 and has been updated several times, including in 1999 and 2009 (EPA 2013). In 2003, this standard was updated to include special considerations for mussels, gill-breathing snails, and other sensitive freshwater species. The 2013 standard set by the EPA includes input and perspectives from their 2009 criteria and is therefore considering especially ammonia-sensitive freshwater species. The EPA also issued guidance for states in issuing this standard (Flexibilities for States Applying EPA's Ammonia Criteria Recommendations 2013), and at least 13 states and 3 territories have adopted the 2013 EPA criteria in full. Under Minn. Stat. sec. 115.035, the "external, scientific peer review" requirement has been met. Thus, MPCA has no reason to delay this rulemaking for collection and analysis of additional scientific data.

To reduce the potential for delay due to economic concerns from regulated parties, we encourage MPCA to explore how this new standard would affect individual regulated parties and to identify the strategies that would be available to reduce cost burdens if the proposed amendment is adopted. MCEA and FMR support ensuring that funding is available for communities that may need to incur costs to comply with the new standard, and would also support MPCA initiatives at the legislature or in other forums to address anticipated funding gaps.

2. The MPCA should fully consider impacts from this rulemaking on wetland ecosystems

Wetlands play a significant role in the nitrogen cycle and the overloading of ammonia may negatively impact wetlands and nitrogen cycling. Dissolved oxygen levels in wetlands impact ammonia and nitrification processes. To reduce ammonia, nitrification is often the most important process, and increased levels of dissolved oxygen increase the probability of nitrification occurring in a wetland. Wetlands fluctuate seasonally in their water levels, temperature, pH levels, and present aquatic life. Dissolved oxygen variability throughout the seasons may have an impact on the implementation and monitoring of the proposed standard. This standard may not be adequate in fully accounting for wetland impacts and variability and more work may be needed in developing this. When adopting this new standard, MPCA should adopt, in addition to the standard, enhanced sampling protocols for wetlands to ensure valid data and reduce potential impacts to freshwater systems and aquatic life.

3. The MPCA should update the Class 2 nitrate standards for aquatic life and not continue to postpone this important rulemaking

During the 2005-2008 Triennial Review process, the Minnesota Department of Natural Resources and MCEA raised concerns regarding the toxicity of nitrate to aquatic organisms. In 2010, the State Legislature directed the MPCA to develop nitrate-nitrogen and Total Nitrogen water quality standards for Class 2 Waters. Later that same year, the MPCA published the draft Aquatic Life Water Quality Standards Technical Support Document for Nitrate Triennial Water Quality Standard.

The agency has since re-stated its commitment to developing nitrate standards for aquatic life in its 2013 Nitrogen to Minnesota Surface Waters Study[1], and again in its current water quality standards work plan for 2021-2023; which includes the agency's commitment to completing all Water Quality Standards (WQS) projects in Group 1, including nitrate for aquatic life.

MPCA has a duty to protect aquatic life and implement a N standard and rulemaking to prevent further irreparable damage to our freshwater ecosystems and aquatic life. MCEA and FMR strongly encourage MPCA to quickly implement nitrate (N) standard rulemaking. The

[1] MPCA, Nitrogen in Minnesota Surface Waters (2013). Page 1: "The Minnesota Pollution Control Agency (MPCA) is developing water quality standards to protect aquatic life from the toxic effects of high nitrate concentrations. The standards development effort, which is required under a 2010 Legislative directive, draws upon recent scientific studies that identify the concentrations of nitrate harmful to fish and other aquatic life."

postponement of this standard will only increase water degradation and N pollution, regardless of other reduction strategies that may be deployed in the interim.

Conclusion

MCEA and FMR support amendments to the Class 2 ammonia standards provided those amendments serve to preserve and enhance the protections that currently exist for groundwater and surface waters used for domestic consumption. MPCA should not adopt any amendments that are directed toward reduction of costs for industry and maintain protections that are consistent with current federal policy to protect all sources of water for aquatic life from degradation.

MCEA and FMR also encourages the MPCA to continue to share the options that it is considering with stakeholder groups, so that interested parties can develop a better understanding of the choices as this rulemaking moves forward.

Sincerely,

/s/Nadia Alsadi
Nadia Alsadi
Water Policy Associate

/s/Ann E. Cohen
Ann E. Cohen
Senior Staff Attorney

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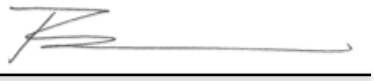

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:
WW-16J

September 15, 2022

The Honorable Administrative Law Judge Jenny Starr
Office of Administrative Hearings
600 North Robert Street
P.O. Box 64620
St. Paul, Minnesota 55164-0620

Dear Judge Starr:

On August 1, 2022, the Minnesota Pollution Control Agency (MPCA) published public notice of a public comment period on "Possible Amendments to Rules Governing Water Quality Standards, Minnesota Rules, chapters 7050 and 7053; Revisor's ID Number R-04737".

The U.S. Environmental Protection Agency reviewed the draft rules and supporting documents posted on MPCA's website for consistency with the requirements of Section 303(c) of the Clean Water Act and federal regulations at 40 CFR Part 131. EPA's comments are enclosed. These comments do not constitute final Agency action, but are provided for MPCA's consideration as MPCA develops water quality standards revisions for adoption and subsequent submittal for EPA review under Section 303(c) of the Clean Water Act.

Thank you for the opportunity to comment on MPCA's amended use designation rules. If you have any questions regarding our comments, please contact Michelle Woods of my staff at 312-886-3630 or woods.michelle@epa.gov.

Sincerely,

David Pfeifer, Manager
Wetlands and Watersheds Branch

Enclosure

cc via email w/enclosure:

Will Bouchard, MPCA
Claudia Hochstein, MPCA

Enclosure – Comments on Minnesota's "Possible Amendments to Rules Governing Water Quality Standards, Minnesota Rules, chapters 7050 and 7053; Revisor's ID Number R-04737"

Comment 1. The draft technical support document (*Amendments to Class 2 Water Quality Standards in Minn. R. chs. 7050 and 7052*, July 2022, hereinafter referred to as "draft TSD") provides data and support for the adoption of nationally recommended aquatic life criteria for ammonia. The draft TSD indicates that current Class 2 ammonia standards for Minnesota were last updated in 1981. These standards are based on an assessment of acute and chronic ammonia toxicity data for a limited number of resident fish species and do not consider the often-greater sensitivity of freshwater mussels. As a result, MPCA proposes to adopt the 2013 EPA national recommended water quality criteria for ammonia. The importance of adopting these updated ammonia criteria is evident throughout the draft TSD. Additionally, it would be important to consider the adoption of nitrate criteria in conjunction with ammonia criteria. Given the connectedness of ammonia, nitrate, and other forms of nitrogen in the nitrogen cycle, a holistic approach can be effective in reducing nitrogen pollution in the aquatic environment.