

MEMORANDUM

DATE: July 14, 2017

TO: MPCA Staff

FROM: John Linc Stine, Commissioner



SUBJECT: Directive Regarding Peer Review of New or Revised Numeric Water Quality Standards

Water quality standards promulgated by the Minnesota Pollution Control Agency (MPCA) are based on sound science and the MPCA consistently uses peer review in multiple ways to check and confirm its work.

Both the federal Clean Water Act and prudent public policy necessitate that we base water quality standards on rational, sound science that has been peer reviewed. Make no mistake, MPCA always does this.

The U.S. Environmental Protection Agency (EPA) states: “The goal of peer review is to obtain an independent review of the product from experts who have not contributed to its development” (see *EPA Peer Review Handbook, 4th Edition, 2015*). The EPA defines peer review as:

“a documented process for enhancing a scientific or technical work product so that the decision or position taken by the Agency, based on that product, has a sound, credible basis...It is conducted by qualified individuals (or organizations) who are independent of those who performed the work and who are collectively equivalent in technical expertise to those who performed the original work (i.e., peers). Peer review is conducted to ensure that activities are technically defensible, competently performed, properly documented and consistent with established quality criteria... the goal is to ensure that the final product is scientifically and technically sound.”

Peer review can and does happen following multiple pathways: through the publishing of studies in peer-reviewed scientific journals; through the examination of MPCA-generated data and information via a peer review panel; through EPA and other parties’ commissioning of independent scientific review of MPCA’s proposed standards; and other peer review methods.

While MPCA always and consistently relies on peer-reviewed science in the development of environmental standards, there continues to be confusion about the role of peer review in our work. Stakeholders have expressed interest in having an opportunity to comment on documents that undergo scientific peer review and to suggest review questions. To address the ongoing confusion and to bring increased transparency to the MPCA’s scientific peer review process, I hereby direct MPCA staff to supplement existing peer review efforts in developing new or revised numeric water quality standards for all rules initiated after the date of this memo as follows:

- Every new or revised numeric water quality standard must be supported by a technical support document (TSD) that provides the scientific basis for the proposed standard and that has undergone external, scientific peer review.
 - Exceptions include those numeric water quality standards in which MPCA is adopting, without change, an EPA criterion that has been through peer review.
 - In these cases, the Statement of Need and Reasonableness (SONAR) for the rulemaking must briefly describe the peer review done by EPA.

- Every TSD developed by the MPCA must be released in draft form for public comment prior to peer review and prior to finalizing the TSD.

- Public notice and information about the peer review should occur through the Request for Comments (RFC) published at the start of the water quality standards rulemaking process.
 - The RFC must identify the draft TSD and where it can be found.
 - The RFC must include a proposed charge for the external peer review and request comments on the charge.
 - All comments received during the public comment period must be made available to the external peer reviewers.
 - If the MPCA is not soliciting peer review because we are adopting an EPA criteria without change, that must be noted in the RFC.

- The purpose of the external peer review is to evaluate if the TSD and proposed standard is based on sound scientific knowledge, methods, and practices. It should be conducted as follows:
 - The external peer review must be conducted according to the guidance in the most recent edition of the EPA's Peer Review Handbook.
 - Peer reviewers must not have participated in developing the scientific basis of the standard.
 - The type of review and the number of expert reviewers should depend on the nature of the science underlying the standard. Where the MPCA is developing significant new science or science that expands significantly beyond current documented scientific practices or principles, a panel review should be used.

- In response to the findings of the external peer review, the draft TSD should be revised, as appropriate.
 - The peer review findings must be documented and attached to the final TSD, which must be an exhibit as part of the SONAR in the rulemaking to adopt the new or revised numeric water quality standard.
 - The final TSD must note changes made in response to the external peer review.

Enhancing the Agency's current peer review approach is intended to expand awareness and support for our excellent scientific work, increase transparency about the important role that peer review plays in the MPCA's standards development process, and ensure productive conversations about policy choices.