MEMORANDUM IN SUPPORT OF THE MINNESOTA CENTER EOR ENVIRONMENTAL ADVOCACY'S PETITION FOR RULEMAKING ON ANTI-DEGRADATION

Introduction

Antidegradation plays a critical role in allowing States and Tribes to maintain and protect the finite public resource of clean water and ensure that decisions to allow reductions in water quality are made in a public manner and serve the public good.

-EPA, ANPR, 63 Fed.Reg. 36742, 36780.

The Minnesota Center for Environmental Advocacy ("MCEA") requests that the Minnesota Pollution Control Agency ("agency") adopt the proposed rule and rule amendments submitted with its Petition for Anti-degradation Rulemaking ("the Petition"). This memorandum provides the rationale and basis for proposing the new rule and amendments. In the first section, MCEA shows that Minnesota's existing "nondegradation" rule does not comport with federal law, and that the Agency's failure to adopt and implement an effective antidegradation policy results in on-going threats to the State's high quality waters. The second section explains, point by point, the reasons for the recommended changes.

I. MINNESOTA'S EXISTING ANTIDEGRADATION RULE DOES NOT COMPORT WITH FEDERAL LAW AND IS NOT PREVENTING DEGRADATION OF HIGH-QUALITY WATERS.

A. Minnesota' antidegradation rule must, at a minimum, satisfy federal requirements.

Federal law requires Minnesota to develop, adopt, and implement a state-wide "antidegradation policy." 40 C.F.R. § 131.12; ; *PUD No. 1 of Jefferson County v. Washington Dept. of Ecology*, 511 U.S. 700, 705 (1994). The antidegradation policy is a major element of the state's water quality standards. *Raymond Proffitt Foundation v. U.S. E.P.A.*, 930 F.Supp. 1080, 1091 (E.D.Pa. 1996). The Clean Water Act requires that state water quality standards be at least as stringent as mandated by federal law. While a state may elect to implement greater protections for its waters, it must, at a minimum, satisfy federal standards. 33 U.S.C. § 1370; *PUD No. 1*, at 705. MCEA submits that Minnesota's existing "nondegradation" rules fall short of this federal requirement.

1. The federal regulation requires states to protect high quality waters from degradation.

The federal antidegradation regulation establishes three levels of protection from degradation for the nation's waters. The levels of protection, generally referred to as "Tiers," correspond to the three paragraphs in the antidegradation regulation at 40 C.F.R. § 131.12:

(a) The State shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy pursuant to this subpart. The antidegradation policy and implementation methods shall, at a minimum, be consistent with the following:

(1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

(2) Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.

(3) Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected . . .

Thus, "Tier 1" reflects the basic requirement that states must ensure that designated and existing uses and the water quality criteria that support those uses are protected. 40 C.F.R. § 131.12(a)(1). "Tier 2" establishes the additional requirement that where water quality exceeds the level necessary to support designated uses, state policy must maintain and protect that excess quality unless it is necessary to allow some amount of degradation for an important economic or social reason. 40 C.F.R. § 131.12(a)(2). The increment of water quality that exceeds the applicable water quality criterion is often referred to as the "assimilative capacity" of the water body. Tier 2 review is intended to protect and maintain the assimilative capacity of high-quality waters. Tier 2 antidegradation analysis is the point at which Minnesota's existing rule falls short, and it is the main focus of MCEA's petition. "Tier 3" refers to the protections offered waters that are considered outstanding national resources, referred to in Minnesota rules as outstanding resource value waters ("ORVWs"). 40 C.F.R. § 131.12(a)(3).

The U.S. Environmental Protection Agency ("EPA") has issued a number of guidance documents to assist states and the public in interpreting the intent and the requirements of the antidegradation regulation. Some of those documents include:

* Water Quality Standards Handbook (2nd Ed. 1994), available at http://www.epa.gov/waterscience/standards/handbook/index.html. (Chapter 4 of the Handbook is entitled Antidegradation; Appendix G contains Questions and Answers on Antidegradation as well as a

regulation and preamble published in the Federal Register) (hereinafter "WQS Handbook").

* EPA Region V Guidance for Antidegradation Policy Implementation for High Quality Waters (Dec. 3, 1986) and accompanying December 10, 1986 letter from Charles H. Sutfin and Antidegradation Response Summary, available in Agency's nondegradation rulemaking files (hereinafter "Region V Guidance").

* EPA, Memorandum from Ephraim S. King, Director, Office of Science and Technology (August 10, 2005) (hereinafter "King Memo") (attached as Exhibit A).

Through the explicit language of its regulation as well as the interpretations it has offered in these guidance documents, EPA makes clear that Tier 2 antidegradation review must be implemented by states to ensure the quality of high-quality waters is protected. Only after a showing that degradation of high-quality waters is necessary to accommodate an important economic or social development may a state allow any degradation. *See, e.g.,* WQS Handbook, Appendix G, p. 7 ("This provision is intended to provide relief only in a few extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that required for the "fishable/swimmable" water, and the two cannot both be achieved. The burden of demonstration on the individual proposing such activity will be very high.") (emphasis in original); King Memo, p.1 ("The intent of Tier 2 protection is to maintain and protect high quality waters and not to allow for any degradation beyond a de minimis level without having made a demonstration, with opportunity for public input, that such a lowering is necessary and important.")

B. Minnesota's existing antidegradation rules fall short of federal requirements in a number of ways.

Minnesota's antidegradation policy is set out in Minnesota Rules 7050.0180 (Nondegradation for Outstanding Resource Value Waters) and 7050.0185 (Nondegradation for All Waters).[1] Part 7050.0180 contains provisions that correspond to "Tier 3," which prohibits any degradation of outstanding national resource waters, as well as provisions that allow for restricted discharges to certain other outstanding waters (sometimes referred to as "Tier 2.5"). Part 7050.0185 has as its stated purpose to "protect all waters from significant degradation" and to "maintain existing water uses . . . and the level of water quality necessary to protect these uses." Minn. Rule 7050.0185, subp. 1. While Part 7050.0185 achieves the goals of "Tier 1" antidegradation protection, it fails

[1] Additional antidegradation policy is reflected in Rules 7052.0300 - .0330 which apply to discharges of bioaccumulative pollutants to waters in the Lake Superior Basin. These provisions are not the subject of MCEA's petition request and are not addressed here.

on a number of fronts to satisfy the federal requirement for a robust "Tier 2" policy that will protect all high-quality waters.[2]

Below, MCEA sets out ways in which the antidegradation policy embodied in Minnesota Rules Part 7050.0185 does not satisfy federal Tier 2 requirements.

1. Discharges that may lower water quality of high-quality waters evade antidegradation review under Minnesota's rule.

First, Part 7050.0185 fails to satisfy federal requirements because the antidegradation review provided is only triggered for "significant discharges," defined as new or expanded discharges of greater than 200,000 gallons per day. 7050.0185, subp. 2(G). In other words, any new or expanded discharge of 199,999 or fewer gallons per day, regardless of the condition of the receiving waters, is exempt from antidegradation review.

The problem with Minnesota's rule is that it does not take into account *where* additional wastewater of up to 199,999 gallons per day is being discharged. Thus, more than 72 million gallons of wastewater may be added to a stream or lake each year without ever evaluating whether that steam or lake has high water quality, without evaluating how much assimilative capacity it may have, without evaluating how much assimilative capacity may already have been consumed by possible other "insignificant" discharges, and without evaluating whether the discharge is really necessary or serves an important purpose. This program design falls far short of the federal requirement.

Federal law mandates that the state allow activities that will result in lowering high water quality only after an antidegradation review: "The antidegradation review requirements of this provision of the antidegradation policy are triggered by any action that would result in the lowering of water quality in a high-quality water. Such activities as new discharges or expansion of existing facilities would presumably lower water quality and would not be permissible unless the State conducts a[n antidegradation] review . . ." WQSD Handbook, Chapter 4, p. 4-7. Nowhere in the regulation or EPA's guidance documents has the federal agency condoned a "significance threshold" based on the size of a new or expanded discharge.

While the federal rule makes no explicit exceptions for discharges that will result in only insignificant lowering of water quality, EPA has suggested in guidance that it will approve such exceptions as a matter of practicality. In answering the question whether an increased pollutant load constitutes a lowering of water quality even if the increase is so small that no significant change in water quality can be demonstrated, EPA's Region V

[2] In response to an inquiry from MCEA, the agency made available for review the rulemaking files for Parts 7050.0180 and 7050.0185. The rulemaking file for Part 7050.0180 contained an April 5, 1984, letter from EPA approving Minnesota's handling of Tier 3 waters. The file for Part 7050.0185, however, contained no similar letter. Indeed there is no indication in the file that Part 7050.0185 has ever been submitted to EPA for review or that EPA has ever given approval for Minnesota's treatment of antidegradation for high-quality waters.

says: "In the strictest sense, the answer is yes, but this must be tempered with practical considerations to ensure that scarce pollution control resources are used judiciously." Region V Guidance, p. 4. Importantly, the exception EPA is prepared to accept is based on the insignificance of *the change to water quality* in the receiving water, not on the size of a proposed discharge or the magnitude of a new pollutant load. As explained in Ephraim King's 2005 memorandum on Tier 2 antidegradation requirements:

> [I]t is important to clarify that the most appropriate way to define a significance threshold is in terms of assimilative capacity. Other approaches for defining significance, such as considering only increases in pollutant loading, may not take into account the resulting changes in water quality, and in some cases may allow most or all of the remaining assimilative capacity of waterbody to be used without an antidegradation review. . . .

King Memo, p. 2.

EPA's exception for de minimis changes in water quality has been upheld by at least one federal court, but with the condition that the exception truly only allow for de minimis amounts of degradation. In *Ohio Valley Environmental Coalition v. Horinko*, 279 F. Supp.2d 732 (S.D.W.V. 2003), the court reviewed EPA's approval of West Virginia's Tier 2 antidegradation rule, which exempted discharges from review if the discharge consumed no more than 10% of the available assimilative capacity of the receiving water. The West Virginia rule also set a cumulative cap on the exemption, which required review if, taken together, all activities affecting water quality consumed more than 20% of the waterbody's assimilative capacity. The Court approved the 10% de minimis exception (relying in part on guidance EPA had issued for non-BCC's in the Great Lakes). However, the Court rejected West Virginia's and EPA's arguments that a cumulative cap of 20% was a "de minimis" lowering of water quality consistent with the federal mandate. *Ohio Valley Environmental Coalition*, 767-73.

Given Minnesota's general lack of water quality assessments, it is difficult to pinpoint the number of high-quality waters potentially degraded by discharges that have evaded antidegradation review due to the state's significance threshold. Based on preliminary analysis of data MCEA received from the agency, it appears there are a number of high-quality waters that receive point source discharges. For example, there are over 200 facilities currently discharging to waters that have been assessed for aquatic life use and are fully supporting. These are very likely high-quality waters and these discharges should have gone through a Tier 2 review. There are many other discharges that are permitted to waters that have not yet been assessed (see below), many of which are also certainly high-quality waters.

In sum, it is clear that Minnesota's approach to exempting discharges of a certain size, regardless of their pollutant content or the quality of the receiving water, is not consistent with federal law. It may be allowable to exempt certain discharges or activities based on a clear understanding that their effect on water quality will truly be insignificant. But Minnesota's significance threshold is unrelated to the effect the

discharge may have on a high-quality water's assimilative capacity and, in addition, employs no cumulative cap. The rule does not provide Tier 2 protections to Minnesota's waters.[3]

2. Antidegradation review requires that sufficient information be gathered to determine whether a receiving water is of high quality and what effect an activity may have on that quality.

A fundamental requirement of the federal antidegradation requirement is that receiving waters be assessed prior to the state authorizing any polluting discharge. It is axiomatic that the state must establish the water quality conditions of a receiving water in order to comply with the federal obligation to protect high quality waters from unnecessary degradation. Multiple steps of the antidegradation requirement are impossible without appropriate assessment data:

* Tier 2 protects "high quality waters" from unnecessary degradation. The state cannot determine whether a waterbody has high water quality without assessment data.

* Tier 2 requires that, where water quality exceeds the level necessary, that increment of excess quality, or assimilative capacity, must be protected from unnecessary degradation. Without assessment data, the agency cannot determine how much assimilative capacity a receiving water has.

* Tier 2 requires the state to weigh the loss of water quality and assimilative capacity against any economic or social benefits when evaluating an activity that will degrade water quality. Without knowing the status of the receiving water and to what degree the water quality will be lowered, the state cannot make the required analysis.

* Tier 2 requires that the public be able to comment and participate in the decision about whether to allow degradation, but without sufficient information on impacts to the receiving water, public participation is rendered meaningless.

Thus, the lack of any requirement that agency decisions be based on assessment data that demonstrate the quality of the receiving water and the effect the proposed activity will have on water quality is fatal to Minnesota's rule. There is no basis to conclude that the current practice is consistent with federal antidegradation principles. The Minnesota Court of Appeals has clearly explained that the agency must base its antidegradation analyses on a clear understanding of the water quality conditions in the

[3] For the same reasons, the significance threshold for discharges containing toxic pollutants, Minn. R. 7050.0185, subp. 2(G)(3), fails to satisfy the federal requirement. A 1% increase in the concentration of a toxic pollutant may not be significant in a waterbody that has 100% of its assimilative capacity for that pollutant still available, but very significant if only 5% of the assimilative capacity is remaining. In addition, no cumulative cap is imposed on such discharges.

receiving water: "Without defining what the existing quality of the water is, it is not possible to evaluate whether [a] proposed discharge has been restricted to the extent necessary to preserve that quality . . ." *MCEA v. MPCA, City of Princeton*, 696 N.W.2d 95, 108 (Minn.App. 2005).

As an example of the insufficiency of Minnesota's antidegradation review in this respect, MCEA offers the "Montrose Wastewater Treatment Plant Expansion Nondegradation Review," attached as Exhibit B. In this case the facility was increasing its discharge by over .6 million gallons per day and therefore was deemed a "significant" discharge, triggering nondegradation analysis. The facility discharged into a Wildlife Management Area wetland. The only characterization done of the receiving water was a listing of its designated uses. A section entitled "Impact of the Discharge on the Receiving Water's Quality" contains only three sentences, which describe the recommendations of an expert that the outfall have a flow-dispersing device. There is no information on the relative quality of the receiving water, no analysis of existing assimilative capacity for the affected parameters and no information about the level of degradation expected by the increased load.

The lack of assessment data, in general, is a major impediment to effective antidegradation review. MCEA's preliminary analysis suggests that the overwhelming number of discharges occur to waters for which no assessment has been completed and, therefore, no real antidegradation review could have been conducted. For example, with respect to ammonia, 221 permitted facilities discharge to receiving waters that have been assessed and are fully supporting and 12 permits allow discharges to waters that are assessed as impaired. For all other facilities with permitted discharges, the agency lacks data to know whether a discharge containing ammonia is degrading high-quality waters.

The rule must be amended to ensure that sufficient data are gathered and used to identify the quality of Minnesota's high-quality waters and the degrading effects proposed activities may have on that high water quality.

3. Minnesota's rule does not require an analysis and finding of whether lowering the water quality of all high-quality waters is necessary or whether the activity serves an important economic or social objective.

The federal regulation makes clear that allowing lower water quality is only acceptable if, after allowing for public input, the agency finds that lowering water quality "is necessary to accommodate important economic or social development . . ." 40 C.F.R. § 131.12(a)(2) (emphasis added). Minnesota's rule contains no similar requirement. Rather, the only analysis required is an evaluation of whether pollution control measures that go beyond the minimum controls required by all discharges can "reasonably be taken to minimize the impact of the discharge on the receiving water." Minn. R. 7050.0185, subp. 4. The question of whether additional controls are "reasonable" has nothing to do the with inquiry required by federal law: whether the proposed lowering of water quality