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# Nondegradation Rulemaking

## Issue Paper 3. What is tier 2 protection of high quality waters?

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**C**ompared to tier 2 protection of high quality waters, nondegradation provisions for the protection of existing uses (tier 1) and waters set aside as having exceptional value (tier 3) are relatively straight forward. The protection of high quality waters (tier 2) is more complex in that federal regulations at 40 CFR §131.12 (a) (2)<sup>1</sup> allows for a process whereby the state, through intergovernmental coordination and public input, can make a determination if a proposed activity is necessary to accommodate economic or social development. This process is referred to as nondegradation review. Through the review process, the state compares the benefits and detriments of maintaining high water quality to the benefits and detriments of the proposed project. Where an activity is approved existing uses must be fully protected, statutory and regulatory requirements for point source discharges must be fully met, and cost-effective and reasonable best management practices (BMPs) employed for nonpoint sources.

Before we consider how the nondegradation review process works, it is first necessary to define high quality waters and explore various approaches for how these waters are protected. Specific issues related to the implementation of protecting high quality waters will be fully addressed in future Issue Papers and stakeholder meetings.

### What are high quality waters?

40 CFR 131.12 (a)(2)<sup>1</sup> states “(w)here 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...” The underlined portion of this phrase refers to the use designation requirement found in 40 CFR §131.10 (a)<sup>2</sup>:

Each State must specify appropriate water uses to be achieved and protected. The classification of the waters of the State must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

The “levels necessary to support” this designated use are the state’s water quality standards for that use. Therefore, the protection referred to in 40 CFR §131.12 (a)(2)<sup>1</sup> applies to situations where the water quality is better than the state’s water quality standards.

### What standards may be used in the determination of high quality waters?

The protection of aquatic life and recreation includes standards for chemical, biological and physical parameters. In Minnesota’s standards, found in Minnesota Rules Chapter 7050<sup>3</sup>, chemical standards

are in numeric form, while those for biological and physical parameters are narrative. Nondegradation reviews in Minnesota have historically been conducted for NPDES-permitted wastewater treatment facilities (WWTFs). Due to their numeric nature, nondegradation reviews have typically only considered chemical standards to quantify potential impacts on receiving waters. In this rule revision there is a need to review the potential use of other standards (i.e., narrative biological and physical standards) in nondegradation review, both for NPDES-permitted WWTFs and other regulated activities where nondegradation review may be implemented. Also, Minnesota is considering adoption of Tiered Aquatic Life Use (TALU) standards through a separate rulemaking. Through the nondegradation rulemaking process consideration will need to be given to how numeric TALU standards may be used in nondegradation reviews.

### **What approaches are there for how high quality waters are protected?**

Federal regulation<sup>1</sup> does not include specific guidelines for identifying high quality waters. Considerations for the way high quality waters are protected include how protection is applied and when the determination is made that a waterbody is ‘eligible’ for tier 2 protection. Two basic approaches to how protection is applied to high quality waters are 1) a pollutant-by-pollutant approach, and 2) a waterbody-by-waterbody approach. EPA believes that it is best to apply nondegradation on a “pollutant-by-pollutant” or “parameter-by-parameter” basis, but has accepted other approaches.<sup>4</sup>

Using a pollutant-by-pollutant approach, a state determines whether water quality for a given parameter for a specific waterbody is better than the applicable standard. Any showing that water quality for a given parameter is better than the applicable standard is subject to nondegradation review, regardless of whether the water quality for other pollutants are above standards or not. A waterbody may thus be considered of high quality for one parameter that is better than the applicable standard, yet be impaired for another that is not better than its standard.

Using the waterbody-by-waterbody approach, a determination of high water quality is made for the waterbody as a whole. A process must be developed to consider and weigh the relative importance of factors in its overall determination. With this approach waterbodies with an impairment for one or more

pollutant could be termed “Water Quality Limited” as defined in 40 CFR §131.3 (h).<sup>5</sup>

Another consideration for how high quality waters are protected is the point in time a determination is made that a given waterbody is of high quality. In other words: When is a waterbody eligible for tier 2? Determinations may be made prior to or at the time of nondegradation review. Those made prior to review may be done through assessment of the waterbody or by default. Assessment prior to nondegradation review, when used with the parameter-by-parameter approach, may include waterbodies and parameters identified through 305 (b) assessments as having water quality better than the applicable standard. Using the waterbody-by-waterbody approach determination prior to review would, as mentioned above, require consideration of all available assessment information to make the determination of high water quality. A list of specifically-determined “high quality waters” could then be included in the states standards or elsewhere. Determination of high quality by default would include waterbodies that are not impaired and not set aside as having exceptional value (Outstanding Resource Value Waters, ORVWs). High quality waters would, by default, include those waters for which there is no assessment information.

When there is no or inadequate information on the quality of a receiving water, determination of high quality may be done at the time of nondegradation review. Even if some information is available through 305 (b) assessments, the information may be incomplete as not all pollutants of concern may be been monitored. Either pollutant-by-pollutant or waterbody-by-waterbody approach may be used when determination of high quality is made at the time of nondegradation review.

### **Discussion Points**

- 1) Which approach to how protection is provided to high quality waters, parameter-by-parameter or waterbody-by-water, is more desirable? Why? Are there other approaches not considered here?
- 2) When making the determination of high quality, what are the advantages and disadvantages of both the “prior to nondegradation review” and the “time of nondegradation review” approaches? Which approach is most desirable? Why? Are there other approaches not considered here?

- 3) How can standards in narrative form be used in nondegradation review?
- 4) Do you believe impaired waters are subject to nondegradation requirements? If so, under what circumstances?

## References and Links

<sup>1</sup>40 CFR § 131.12, Antidegradation policy

[http://edocket.access.gpo.gov/cfr\\_2007/julqtr/40cfr131.12.htm](http://edocket.access.gpo.gov/cfr_2007/julqtr/40cfr131.12.htm)

<sup>2</sup>40 CFR § 131.10 (a), Designation of uses

[http://edocket.access.gpo.gov/cfr\\_2007/julqtr/40cfr131.10.htm](http://edocket.access.gpo.gov/cfr_2007/julqtr/40cfr131.10.htm)

<sup>3</sup>Minnesota Rules Chapter 7050, Water Quality Standards for Protection of Waters of the State

[www.revisor.leg.state.mn.us/rules/?id=7050](http://www.revisor.leg.state.mn.us/rules/?id=7050)

<sup>4</sup>Water Quality Standards Handbook: Second Edition, USEPA, Office of Water, 1994

[www.epa.gov/waterscience/standards/handbook/chapter04.html](http://www.epa.gov/waterscience/standards/handbook/chapter04.html)

<sup>5</sup>40 CFR § 131.3 (h) Definitions

[http://edocket.access.gpo.gov/cfr\\_2007/julqtr/40cfr131.3.htm](http://edocket.access.gpo.gov/cfr_2007/julqtr/40cfr131.3.htm)

**Please keep in mind that these issue papers are to generate discussion and are not to be taken as representing MPCA decisions or recommendations at this time. Your participation and input in this rule revision is much appreciated.**