

Guide to the Proposed Permanent Rules Relating to Antidegradation of State Waters

Minnesota Pollution Control Agency
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I. Introduction

Antidegradation is a publically-informed, decision-making process used by Clean Water Act (CWA) delegated authorities (e.g., Minnesota Pollution Control Agency¹) to protect water quality. It is one of three primary components of the State's water quality standards – the other two being beneficial uses (which, in Minnesota, are identified through seven use classifications), and criteria necessary to meet those uses. Federal antidegradation regulations² require states to adopt antidegradation policy and identify implementation procedures that maintain and protect existing uses³, prevent unnecessary degradation of high water quality⁴ and maintain and protect the quality of waters identified for their outstanding value⁵. Antidegradation is generally implemented through the issuance and enforcement of control documents authorizing regulated activities which impact water quality.

The purpose of this summary is to provide an overview of the draft proposed antidegradation rule and to aide in its understanding. It provides the scope of the rulemaking, presents the Agency's approach to the rule revision, outlines the primary rule components and identifies the major changes to current nondegradation provisions.

The terms "nondegradation" and "antidegradation" are used in this guide. Both have the same meaning in that they are water quality protection provisions as required in federal antidegradation regulations. "Nondegradation" is used in reference to Minnesota's current rules⁶ and practices, while "antidegradation" is used in reference to federal regulations, Environmental Protection Agency (EPA) guidance, other states' provisions, and proposed rule language.

¹ Throughout the Guide the term "Agency" is used to describe the Minnesota Pollution Control Agency.

² [40 CFR § 131.12](#).

³ Existing uses are defined in [40 CFR § 131.3](#) (e) as *"...uses actually attained in the water body on or after November 28, 1975, whether or not they are included in water quality standards."* The maintenance and protection of exiting uses is often referred to as "antidegradation tier 1 protection".

⁴ High water quality is the quality better than the water quality standard (i.e., criterion) necessary to protect the applicable beneficial use. The protection of high water quality is often referred to as "antidegradation tier 2 protection" which prohibits the lowering of high water quality unless it is necessary to accommodate important economic or social development in the area in which the waters are located. There must be an opportunity for public participation in the decision to lower high water quality.

⁵ The maintenance and protection of waters designated for their outstanding characteristics is often referred to as "antidegradation tier 3 protection".

⁶ [Minn. R. 7050.0180](#) (Nondegradation for outstanding resource value waters) and [Minn. R. 7050.0185](#) (Nondegradation for all waters).

II. What Is the Scope of the Rulemaking

This rulemaking proposes changes to nondegradation provisions found [Minn. R. ch. 7050](#), it does not alter nondegradation requirements in [Minn. R. ch. 7052](#) (Lake Superior basin water standards).

III Why Are We Revising the Nondegradation Rules?

The primary reasons for revising Minnesota's nondegradation rules include:

- ***The current rules are outdated.***

The last major revisions to rules governing nondegradation found in Minn. R. ch. 7050 were made in 1988. Since that time there have been many changes to state and federal water quality regulations, EPA guidance, and to the technical understanding of water quality protection.

- ***Improve consistency with federal antidegradation regulations regarding the scope of antidegradation implementation.***

The scope of the current rule is functionally applicable only to wastewater treatment activities authorized under individual National Pollutant Discharge Elimination System (NPDES) permits. There are no provisions for implementing antidegradation through NPDES permits for stormwater activities, general permits or CWA section 401 certifications.

- ***The current rule protecting all waters does not require a demonstration of "necessity" when a lowering of high water quality is proposed.***

Federal regulations prohibit the lowering of high water quality unless it is "...*necessary to accommodate important economic or social development...*" (40 CFR § 131.12(a) (2), emphasis added) The current rule does not provide the same standard – rather requiring that high water quality be maintained and protected unless the "*a lowering of water quality is acceptable.*" (Minn. R. 7050.0185, subp. 1, emphasis added) The only analysis beyond minimum treatment for significant discharges is an evaluation of whether pollution control measures can "*reasonably be taken to minimize the impact of the discharge on the receiving water.*" (Minn. R. 7050.0185, subp. 4)

- ***The current rule is inconsistent with EPA guidance⁷ and recent court rulings regarding de minimis discharges.***

De minimis discharges are those considered insignificant and therefore not subject to antidegradation review. EPA guidance recommends that, where employed, significance

⁷ [Memorandum from Ephraim King, EPA Office of Science and Technology, "Tier 2 Antidegradation Review and Significant Thresholds", August 8, 2005.](#)

thresholds be based on the consumption of available assimilative capacity⁸ and that such procedures also include a means for triggering review based on cumulative impacts. Environmental groups have successfully challenged other states' antidegradation provisions that inappropriately use significant thresholds for review exemption. Significance thresholds in Minnesota's current rules are not based on assimilative capacity and there is no threshold to require review based on cumulative impacts.

- ***Litigation challenging the issuance of permits that do not comply with nondegradation.***

Inadequacies of our current rules are demonstrated in two court decisions:

- The current rules do not provide for the implementation of nondegradation through general permits.

On June 28, 2002, the Agency issued an NPDES general permit for stormwater discharges from municipal separate storm sewer systems (MS4s). The following month Minnesota Center for Environmental Advocacy (MCEA) filed for an appeal alleging that where there is a showing in the record that the discharges to be covered under a general permit are expanded significant discharges, the Agency must determine whether additional control measures are necessary under Minn. R. 7050.0185 to prevent degradation of state waters. On May 6, 2003, the Minnesota Court of Appeals agreed and ruled⁹ that the Agency needed to determine whether the discharges are in fact expanded discharges and that the Agency still has discretion to determine whether additional control measures can reasonably be taken to minimize the impact of the discharge on receiving waters.

- Nondegradation review requires a thorough alternatives analysis and an assessment of existing water quality before degradation is allowed.

The second case involved a challenge to the Agency's issuance of a permit to the City of Princeton for a proposed wastewater treatment discharge to a segment of the Rum River designated as restricted outstanding resource value water (ORVW). New or expanded discharges to this class of ORVWs are only allowed when there is not a prudent and feasible alternative to the discharge.

On May 17, 2005, the Minnesota Court of Appeals remanded the permit back to the Agency stating that:

Under Minnesota's nondegradation rules, the City of Princeton must analyze the prudence and feasibility of a downsized WWTP used in conjunction with acceptable decentralized treatment to meet additional anticipated population growth before such an alternative can be rejected by the city and MPCA as not prudent or feasible. The MPCA must establish the existing water quality of the Rum River and impose necessary requirements and restrictions on Princeton's proposed WWTP to protect that quality.

⁸ Assimilative capacity is the increment of water quality better than the water quality standard (i.e., criterion).

- ***Petition for rulemaking.***
In April, 2007, the Agency received a formal petition for rulemaking to revise the current nondegradation rules.
- ***Optimize the use of a key protection tool under the Clean Water Act.***
This rule revision provides an opportunity to rethink how antidegradation should be used as a tool to protect water quality.

IV. What Is Our Approach To The Rulemaking?

Developing an effective and workable rule requires input from both external and internal stakeholders. Because the revised rule will change how reviews are conducted, there has been considerable interest among the regulated community and other interested parties. Between 2008 and 2009, 16 general stakeholder meetings were held throughout the State. Stakeholders include local units of government (e.g., municipalities, counties, and watershed districts), environmental organizations, consulting firms, agricultural interests, industrial interests, and State agencies. Stakeholder discussions at these meetings were framed by issue papers addressing specific regulatory and implementation topics. Participants were asked to provide written responses to questions surrounding the various topics addressed at the meetings and in the issue papers. Not surprisingly, many questions were included with the stakeholders' responses. Agency staff posted [responses to stakeholders' questions](#) on the [nondegradation rulemaking Web page](#) in October, 2009. In addition to formal stakeholder gatherings, numerous meetings with individual stakeholders, including EPA Region 5, were also held. Because the revised rule will also change internal processes and decision-making, Agency programs responsible for implementation have a keen interest in the outcome of this rule revision and have been actively engaged in rule and implementation development.

Key regulatory and implementation issues identified by external stakeholders and Agency staff were brought to the Agency's Water Quality Forum in November and December, 2009, to receive direction and set the course for the revised rule. The outcome of these discussions was posted on the rulemaking Web page in July, 2010, in the form of three documents:

- [Proposed Antidegradation Rule and Implementation Changes](#)
- [Proposed General Antidegradation Tier 2 Implementation Procedures](#)
- [Proposed Implementation Procedures for NPDES-Permitted Phase II MS4s](#)

In response to internal and external responses to the above-mentioned documents, an [initial draft rule](#) was posted on the Web page in May, 2011. Stakeholders were notified of the posting and were encouraged to comment on the draft.

This leads us to where we are today. The rulemaking team decided to place a more finalized rule on the Web page and hold stakeholder meetings in St. Paul and Duluth. This is being done to solicit further input on the draft rule and its implementation, rather than immediately seeking formal comments through its publication in the *State Register*. The intent is to provide for a more productive dialog leading up to the rule's adoption. The rulemaking team is continuing work by meeting with stakeholders, developing program-specific guidance, mapping implementation processes and developing the Statement of Need and Reasonableness.

V. Rule Outline Identifying Major Components

7050.0305 Purpose.

This section reiterates federal antidegradation policy ([40 CFR § 131.12](#)).

7050.0315 Definitions.

7050.0325 Antidegradation Review; When Required.

Describes how antidegradation procedures are triggered and identifies the control documents through which antidegradation will be implemented.

7050.0335 Determining Existing Water Quality.

An understanding of existing conditions is essential for decisions allowing individual actions which may impact those conditions.

7050.0345 Antidegradation Procedures: Individual NPDES permits for wastewater activities and section 401 certifications of individual federal permits or authorizations.

This part includes the following:

- A requirement to identify parameters of concern
- Exemptions from antidegradation procedures
- Requirements for project proponents' antidegradation assessments

An antidegradation assessment is the information the project proponent submits to the Agency regarding the proposed activity. The information includes a description of anticipated impacts to existing water quality, an alternatives analysis, and a justification for lowering of high water quality based on the necessity for important social and economic development.

- The Agency's antidegradation review and preliminary decision
The Agency considers information provided in the antidegradation assessment and other relevant information to make a preliminary antidegradation determination. This portion of the proposed rule lays out the criteria the Agency applies to protect existing uses, high water quality, and ORVWs.
- Opportunity for public comment on the proposed activity, and on the Agency's review and preliminary determination; and

- The Agency's final determination.

After considering public comment, the Agency will make a final determination of whether and to what extent water quality may be lowered.

7050.0355 Antidegradation Procedures; General NPDES permits, individual NPDES permits for stormwater activities, and section 401 certifications of general federal permits or authorizations.

The Agency conducts the antidegradation review during the development of the control document. Project proponents seeking coverage under the control document are not required to submit an individual antidegradation assessment when control document conditions are met.

7050.0365 Multiple Control Documents.

Only one review is required in situations where a single project is covered under an NPDES permit for stormwater activities and a section 401 certification.

7050.0375 Designated Outstanding Resource Value Waters.

This is a list of prohibited and restricted ORVWs taken directly from the current rule. No ORVWs are added or removed from the list.

VI. How Does the Draft Proposed Rule Differ From The Current Rule?

1. Name change from “nondegradation” to “antidegradation”.

Current Approach

Minnesota’s provisions for the protection of water quality required by federal antidegradation regulations uses the term “nondegradation”.

Proposed Approach

The proposed draft rule uses the term “antidegradation”.

Why the change?

Antidegradation is a more accurate term. While “nondegradation” may be an accurate description for tiers 1 and 3 antidegradation protections, which respectively prohibit the removal of existing uses and the permanent degradation of outstanding National resource waters (equivalent to the prohibited category of Minnesota’s ORVWs), it is not an accurate term to describe tier two protection. Tier two protection does not prohibit lowering of high water quality where it is necessary to accommodate important economic or social development.

Because the two terms have the same meaning, and because federal regulations, EPA guidance and the majority of other states and tribal regulatory entities use the term “antidegradation”, confusion would be eliminated by changing the term from “nondegradation” to “antidegradation”.

2. Rule format.

Current Approach

Currently nondegradation provisions in Minn. R. ch. 7050 are found in two parts - Minn. R. 7050.0180 governing nondegradation for ORVWs, and Minn. R. 7050.0185 governing nondegradation for all waters. The layout of the current rules follows a format typical of Minnesota Administrative Rules.

Proposed Approach

This rulemaking proposes to repeal Minn. R. 7050.0180 and Minn. R. 7050.0185 and adopt proposed Minn. R. 7050.0305 through Minn. R. 7050.0375. The proposed rule is structured in such a way that sequentially follows the antidegradation review process.

Why the change?

Given the extent of the proposed changes, starting with a “blank slate” is a reasonable approach.

A format that sequentially follows the review process provides for a more understandable rule. The proposed rule first provides the purpose of antidegradation and explains how

antidegradation review is triggered. Then it clearly identifies what information is required of project proponents, how public participation is to occur and the criteria by which the Agency will make its antidegradation determinations.

3. Change in how antidegradation review is triggered.

Current Approach

Under the current rule governing nondegradation for all waters (Minn. R. 7050.0185), review is required for new or expanded significant discharges. New discharges are those which were not in existence before January 1, 1988¹⁰, while expanded discharges are those that result in an increased pollutant loading after the same date. A significant discharge is defined either by an increase in:

- flow – discharges greater than 200,000 gallon per day to receiving waters other than Class 7 waters (limited resource value waters)
- mass loading of a toxic pollutant – discharges likely to increase the concentration of a toxic pollutant to a level greater than one percent over the baseline quality in the receiving water. Baseline quality is the quality consistently attained by January 1, 1988.

Discharges that do not meet the significance thresholds are considered *de minimis*, and are not required to undergo review.

Although not explicit in Minn. R. 7050.0180, a review of potential impacts to ORVWs is triggered by any proposed new or expanded discharge. New or expanded discharges are not allowed to the prohibited category of ORVWs. New or expanded discharges to restricted ORVWs are not allowed where there is a prudent and feasible alternative to the discharge.

Proposed Approach

The proposed rule requires antidegradation review for *the following new, reissued, or modified authorizations **anticipated to result in a net increase in loading or cause degradation** of waters of the state:*

- A. NPDES individual and general permits; and
- B. section 401 certifications. (proposed Minn. R. 7050.0325, emphasis added)

¹⁰ January 1, 1988 was the date upon which the Minn. R. 7050.0185 became effective.

Why the change?

Federal antidegradation regulations do not specify how review should be triggered and EPA provides regulatory authorities discretion in determining the conditions under which review is required. Some states, such as Minnesota, have chosen to require review based on a significance threshold. An August 10, 2005, memorandum¹¹ from EPA recommends that, where used, significance thresholds be defined in terms of assimilative capacity, unless the state can justify another approach that is equally or more protective. The guidance defines available assimilative capacity of a water body as "*the difference between the applicable water quality criterion for a pollutant parameter and the ambient water quality for that pollutant parameter where it is better than the criterion.*" To address cumulative impacts, the guidance recommends that states incorporate a cumulative cap based on the use of "total assimilative capacity"-defined as "*the baseline assimilative capacity of a waterbody established at a specific point in time*". In other words, when a predetermined amount of total assimilative capacity is consumed, a review is required regardless of the amount of remaining assimilative capacity.

The current rule's flow-based significant test is inadequate because it does not consider assimilative capacity or other changes to the quality of the receiving water. Thus a proposed discharge of 199,000 gallons per day to a small stream with little assimilative capacity would not require review and would be treated similarly to a discharge to a large water body with much greater assimilative capacity. In addition, multiple sub-threshold discharges to individual receiving waters could cause degradation without review. The toxic-based threshold was also rejected because, although it considers the quality of the receiving water, it does not provide information regarding the use of assimilative capacity. A one percent increase in concentration of a toxic pollutant may not be significant in a water body with large amount of assimilative capacity, but could be very consequential to a water body on the verge of impairment (i.e., not meeting the beneficial use).

The proposed rule does not employ a significance threshold for the following reasons.

- *Where used, thresholds should account for the level of risk to human and aquatic life.*

A single threshold based on assimilative capacity for all parameters does not reflect the varied risks associated with potentially wide-ranging parameters of concern. Take, for example, a significance threshold of consuming greater than 10 percent of the available assimilative capacity. Not requiring review for a proposed activity which will consume less than 10 percent of available assimilative capacity for total suspended solids may be justifiable. The same threshold may not be prudent when considering an increase in a bioaccumulative toxin which poses an unacceptable risk even at very low levels.

- *Not all activities for which antidegradation review is required lend themselves to the determination of assimilative capacity.*

¹¹ [Memorandum from Ephraim King, EPA Office of Science and Technology, "Tier 2 Antidegradation Review and Significant Thresholds", August 8, 2005.](#)

Estimating the use of assimilative capacity for a wastewater treatment facility discharging to individual receiving waters may be reasonable. It is not reasonable, however, to estimate assimilative capacity for the potentially large number of individual receiving waters impacted by regulated municipal stormwater activities covered under a general NPDES permit.

Also, in situations where numeric criteria have not been adopted it would be impossible to determine assimilative capacity. Contaminants of emerging concern, for example, often do not have numeric criteria.

- *Difficulty in accounting for cumulative impacts.*

Where *de minimis* discharges based on use of available assimilative capacity are allowed, there must be some means of tracking cumulative impacts – typically accomplished by accounting for the consumption of total assimilative capacity. Using total assimilative capacity as a threshold for review is challenging due to:

- the resources required to track, store and analyze data related to cumulative impacts
- the uncertainty in receiving water quality conditions on the baseline date, either because of the lack of historical monitoring data, or lack of confidence in modeling.

Although a net increase in authorized loading is the first consideration when determining whether a review is required under the proposed rule, causes other than an increase in authorized loading may cause degradation. Examples are provided below.

- *Some forms of degradation are not reasonably expressed in terms of pollutant mass loading.*

Under the proposed rule, loading refers to the amount of pollutants discharged or proposed to be discharged through control document authorization. Typically loading of pollutants is expressed in terms of mass. There are, however, causes degradation, such as shifts in pH and temperature, as well as increases in bacteria concentrations, that are not reasonably expressed in terms of mass. Sudden changes in flow rates and volume in small, low order streams may also result in degradation by impacting aquatic habitat.

Additionally, impacts to water bodies resulting from physical alteration do not currently trigger review because they are not a “discharge” and they do not exceed the current rule’s flow-based or toxics-based significance thresholds. The proposed rule recognizes that impacts resulting from physical alterations may not be the result of a loading increase from a discharge, yet may cause considerable degradation. (Further discussion on impacts resulting from physical alterations and the removal of existing uses is presented in item 7, below.)

- *Parameters not limited in existing control documents.*

There may also be situations where a parameter of concern is identified for an expanding activity, but does not have conditions or limitations for that parameter in the existing control document. A prime example of this is where new information becomes available concerning the risks associated with contaminants of emerging concern. In such cases it is reasonable to conduct review for parameters that pose significant risk to the aquatic environment.

4. The proposed rule requires review of, and provides procedures for, regulated activities requiring specific control documents.

Current Approach

Policy statements found in the current rules specify that nondegradation is applicable to point and nonpoint sources, but do not identify which regulated activities are subject to review.

Proposed Approach

The proposed rule explicitly requires review for activities covered under individual and general NPDES permits and section 401 certifications. It is important to note that the proposed rule does not create new regulatory authority where it did not previously exist.

Why the change?

Federal regulations require that states, in their decisions regarding the protection of high water quality, 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.*" (40 CFR 131.12 (a) (2))

In a broad sense antidegradation applies to both point and nonpoint sources. Indeed, the scope of Minnesota's water quality standards¹², as well as the policy of the current nondegradation rules apply to point source and nonpoint source discharges. An EPA guidance memorandum¹³ interprets 40 CFR § 131.12 (a) (2) as requiring states to adopt an antidegradation policy that includes a provision that will "*assure that all cost-effective and reasonable BMPs¹⁴ established under State authority are implemented for nonpoint sources before the State authorizes degradation of high quality waters by point sources.*" (emphasis added) The guidance goes on to state that this section does not mandate that states establish controls on nonpoint sources, but rather leaves it to the states to determine what, if any, control on nonpoint sources are needed to provide for attainment of water quality standards.

¹² [Minn. R. 7050.0110](#).

¹³ Memorandum entitled "[Interpretation of Federal Antidegradation Regulatory Requirement](#)", from Tudor Davies, Director, Office of Science and Technology (OST), to Water Management Division Directors Regions I - X, February 22, 1994, p. 2.

¹⁴ Best management practices. Because of significant differences in discharges characteristics between point and nonpoint sources, regulated nonpoint sources are often controlled through BMPs rather than effluent limits.

The more pertinent question regarding applicability is: Does the Agency have the regulatory authority to implement antidegradation requirements for specific activities? EPA guidance¹⁵ indicates that antidegradation applies to all regulated activities that are required to comply with water quality standards, regardless of whether the activity involves point or non-point sources of pollution. Additional EPA's guidance states that...

It is the position of EPA that, at a minimum, States and authorized Tribes must apply antidegradation requirements to activities that are "regulated" under State, Tribal, or federal law (i.e., any activity that requires a permit or a water quality certification pursuant to State, Tribal or federal law, such as CWA § 402 NPDES permits or CWA § 404 dredge and fill permits, any activity requiring a CWA § 401 certification, any activity subject to State or Tribal nonpoint source control requirements or regulations, and any activity which is otherwise subject to State or Tribal regulations that specify that water quality standards are applicable). ([Advance Notice of Proposed Rule Making](#), Federal Register, Vol. 63, No.129, July 7, 1998, p. 36780.)

The proposed rule clarifies the central questions of applicability and implementation by explicitly identifying which activities are required to undergo antidegradation review. It uses the term "control document" to describe Agency-required authorizations. A "control document" is defined in the proposed rule as "*an authorization issued by the commissioner for a regulated activity that specifies conditions under which the activity is allowed to operate.*" (proposed 7050.0315, subp. 10)

The proposed rule also offers separate antidegradation procedures for:

- individual NPDES permits for wastewater treatment activities and individual section 401 certifications (proposed Minn. R. 7050.0345)
- general NPDES permits, individual NPDES permits for stormwater activities and section 401 certifications of general permits or authorizations (proposed Minn. R. 7050.0355).

The primary reason for this separation is that the former provides for review of proposed activities impacting individual, or relatively few, receiving waters, while the later addresses proposed activities impacting many receiving waters. Stormwater activities are reviewed under proposed Minn. R. 7050.0355, not only because many stormwater discharges are to multiple receiving waters of different types, but also because they differ in other significant ways from wastewater activities. Stormwater discharges may emit from many locations, have a wide range of parameters of concern, and exhibit seasonal, annual, and land use variability. Municipal stormwater discharges are further complicated because stormshed boundaries do not often coincide with jurisdictional boundaries of regulated entities. Wastewater discharges are typically controlled through effluent limits, whereas stormwater discharges are commonly controlled through BMPs.

¹⁵ Guidance for Antidegradation Policy Implementation for High Quality Waters. U.S. Environmental Protection Agency Region 1. March 10, 1987, p. 2 – 4.

The most important difference between the above-mentioned procedures is that for individual wastewater activities and individual section 401 certifications, it is the project proponent who is responsible for providing an antidegradation assessment – which includes an alternatives analysis and a justification for social and economic development. The Agency uses this assessment along with other pertinent information, including that obtained through public comment, to make antidegradation determinations.

Procedures for general NPDES permits, individual NPDES permits for stormwater activities and section 401 certifications of general permits or authorizations calls for the Agency to conduct the antidegradation review during the development of the control document. Least degrading prudent and feasible alternatives are identified in the alternatives analysis and are included as conditions of the control document. Where the Agency determines that there are no prudent and feasible alternatives to avoid a net increase in loading or causes of degradation, it must provide a justification for why lowering of high water quality caused by the permitted activity is necessary to accommodate important economic or social development. Opportunity for public comment on the Agency's review and preliminary determination is provided. Once issued, an applicant seeking coverage under the control document must comply with its conditions in order for antidegradation requirements to be satisfied.

5. Parameters of concern.

Current Approach

The current rules do not provide procedures to identify which pollutants or other causes of degradation will be subject to review.

Proposed Approach

The proposed rule specifies that review be done for parameters of concern, which it defines as "*pollutants or other causes of degradation that result from or can reasonably be expected to result from a regulated activity and for which an antidegradation review is conducted.*" (proposed 7050.0315, subp. 34)

Why the change?

This change is being proposed to clarify which parameters will be subject to antidegradation review. Although review is triggered by authorizations anticipated to result in a net increase in loading or cause degradation, the review itself will be limited to parameters which present the greatest risk of degradation.

One of the strengths of the proposed rule is that places a greater emphasis on the alternatives analysis – a process which identifies the least degrading, prudent and feasible alternative. When conducting an alternatives analysis it is imperative that parameters of concern be identified in order to have a meaningful evaluation of pollution prevention and treatment alternatives.

6. Exemptions.

Current Approach

The current rules do not provide for exemptions from antidegradation review.

Proposed Approach

The proposed rule provides exemptions for:

- response actions which pose imminent danger to the environment, public health or welfare
- certain types of discharges to Class 7 waters
- impacts which are temporary and limited in nature.

Why the change?

Proposed rule language provides exemptions for activities directed at remediating exposures of pollutants which pose an imminent and substantial danger to public health and welfare. These activities are undertaken because exposures to hazardous substances or pollutants are occurring or may occur to humans, aquatic life, or wildlife. In these situations, a short-term lowering in water quality would be allowed in order to achieve long-term benefits to public health and welfare. This approach is reasonable because it provides the flexibility necessary to look at these situations from a long-term perspective.

Review exemptions are also provided for some activities impacting Class 7 waters. These water bodies do not meet the CWA 101(a) (2) goals – in other words, “swimmable/fishable” conditions are deemed non-attainable in the near term. Regulated activities which impact Class 7 waters would still be required to undergo review where:

- existing and beneficial uses of the Class 7 water are threatened
- downstream high water quality of non-Class 7 waters would be lowered
- the activity degrades water quality essential to preserve the exceptional characteristics of downstream ORVWs.

The proposed rule also provides an exemption from full antidegradation review for activities which cause temporary and limited impacts. Where temporary and limited impacts are proposed, the project proponent will still be required to submit pertinent information regarding the proposed activity. This information includes a description of existing water quality, and the anticipated changes to that quality and any cumulative impacts. Where the activity is permitted, control document conditions must ensure that the water quality is returned to pre-activity conditions within 12 months from when the water body was initially impacted.

7. Addressing physical alterations to water bodies and the protection of existing uses.

Current Approach

Currently there are no explicit provisions to address the loss of existing uses resulting from physical alterations to water bodies. Physical alterations resulting in significant adverse impacts to wetland beneficial uses must comply with Minn. R. 7050.0186 (Wetland standards and mitigation) which requires procedures for impact avoidance, minimization and mitigation in a descending order of priority.

Proposed Approach

The proposed rule lays out procedures to deal with the loss of exiting uses resulting from physical alterations.

Why the change?

The reason for including this rule language is to bring clarity to the apparent inconsistency between the maintenance and protection of existing uses (tier 1 antidegradation protection) and impacts resulting from physical alterations of water bodies, which by the very nature of the activity may cause the removal of an existing use.

Federal antidegradation regulations and Minnesota's current rule governing nondegradation for all waters require that existing uses be maintained and protected. The term "existing use" is defined in federal regulations as "...uses actually attained in the water body on or after November 28, 1975, whether or not they are included in water quality standards." ([40 CFR § 131.3](#) (e))

EPA's Water Quality Standards Handbook provides guidance in the interpretation of maintaining and protecting existing uses, stating that:

If a planned activity will foreseeably lower water quality to the extent that it no longer is sufficient to protect and maintain the existing uses in that water body, such an activity is inconsistent with EPA's antidegradation policy, which requires that existing uses are to be maintained. In such a circumstance, the planned activity must be avoided or adequate mitigation or preventive measures must be taken to ensure that the existing uses and the water quality to protect them will be maintained. (Chapter 4 (Antidegradation) of EPA's Water Quality Standards Handbook, second edition, 1994, pp. 3-4)

However, the Handbook also states that "A literal interpretation of 40 CFR 131.12(a)(1) could prevent certain physical modifications to a water body that are clearly allowed by the Clean Water Act, such as wetland fill operations permitted under section 404 of the Clean Water Act." ([Chapter 4 \(Antidegradation\) of EPA's Water Quality Standards Handbook, second edition, 1994](#), p. 5)

Physical modifications allowed by the CWA include dredge and fill activities permitted by the Army Corps of Engineers (ACE) under CWA section 404. Federal regulations, jointly developed between the ACE and the EPA, governing compensatory mitigation for losses of aquatic resources resulting from section 404 permitted activities are found at [33 § CFR 332](#). The purpose of these regulations is to establish standards and criteria for compensatory mitigation to offset unavoidable impacts authorized through the issuance of ACE permits. The proposed rule language attempts to reconcile the maintenance of existing uses and the loss of aquatic resources allowed by the CWA by achieving an overall no net loss in aquatic values and functions.

8. Clarification regarding the protection of Restricted ORVWs.

Current Approach

The current rule governing nondegradation for ORVWs prohibits new or expanded discharges to the restricted category of ORVWs where there are prudent and feasible alternatives to the discharge. If a discharge cannot be avoided through a prudent and feasible alternative, it must be restricted to preserve the existing high quality or other special characteristics that make the water outstanding resource value water.

Proposed Approach

The proposed rule restricts activities "*...to the extent necessary to preserve the existing water quality **needed to maintain** the exceptional characteristics for which the restricted outstanding resource value waters listed under part 7050.0375, subp. 2 were designated.*" (proposed 7050.0345, subp. 6(G) (1), emphasis added)

Why the change?

Waters with exceptional value, referred to as outstanding national resource waters (ONRWs) in federal antidegradation regulations, include waters with exceptionally high water quality, or having exceptional recreational or ecological significance. Federal regulations require that water quality for these specifically-designated waters be "maintained and protected". EPA guidance interprets "maintained and protected" to mean "*no new or increased discharges to ONRWs and no new or increased discharge to tributaries to ONRWs that would result in lower water quality in the ONRWs.*" ([Chapter 4 \(Antidegradation\) of EPA's Water Quality Standards Handbook, second edition, 1994](#), p.10) The only exception is for "temporary and short-term" changes in the water quality¹⁶.

Because the word "outstanding" is part of the term "outstanding resource value waters", it is not uncommon for people to assume that all of Minnesota's ORVWs have outstanding or exceptional water quality. This may or may not be the case. Minnesota has two categories of ORVWs – prohibited and restricted. Those designated as prohibited ORVWs generally exhibit exceptional water quality and are protected to maintain that existing quality. Examples of prohibited ORVWs include waters within the Boundary Water Canoe Area Wildness and Voyageur's National Park, and state-designated wild river segments.

The Agency also designates some water bodies as restricted ORVWs. Examples of restricted ORVWs include portions of Lake Superior and the Mississippi River, certain lake trout lakes and calcareous fens, and federal or state-designated scenic or recreational river segments. Exceptional water quality is not necessarily a characteristic

¹⁶ [Water Quality Regulations, Federal Register, Vol. 48, No. 217, November 8, 1983](#), p. 51403.

of restricted ORVWs. For example, many of the restricted ORVWs were designated as such because of their designation as “scenic” and “recreational” segments under the Minnesota Wild and Scenic Rivers Act¹⁷.

The Rum River provides an example a water body with multiple ORVW designations, since it has all three of the Minnesota Wild and Scenic River Act’s classifications (wild, scenic and recreational). The 5.3 mile reach of the Rum River from the Ogechie Lake spillway (excluding the shore of Shakopee Lake), to the river’s northernmost confluence with Lake Onamia is as a wild river. This classification is reserved for rivers, “...that exist in a free-flowing state with excellent water quality and with adjacent lands that are essentially primitive.” ([Minn. R. 6105.0060](#), subp. 2). Under that same subpart the term “excellent water quality” means that, “...the water quality is in or approaches natural condition with no significant evidence of human activities.” In other words a wild river’s water quality is representative of pre-settlement conditions. Because of this reach’s “excellent water quality” the Agency classifies this reach as a prohibited ORVW and protects it accordingly. Downstream of the prohibited reach the river alternates between the “scenic” and the “recreational” classifications. The same part of Minn. R. ch. 6105 defines scenic rivers are those rivers, “...that exist in a free-flowing state and with adjacent lands that are largely undeveloped” and recreational rivers as, “...those rivers that may have undergone some impoundment or diversion in the past and that may have adjacent lands which are considerably developed, but that are still capable of being managed so as to further the purposes of this act” (i.e. Minnesota Wild and Scenic Rivers Act). Again, it is important to note that exceptional water quality itself is not a factor for the designation of either scenic or recreational rivers segments.

So how will the protection of restricted ORVWs be applied? In short, the water quality necessary to maintain the characteristics for which the water body was designated will not be allowed to be degraded. However, water quality not associated with designation characteristics may be lowered, but only through the antidegradation review process.

This approach is consistent with EPA guidance which states that:

One way to remove uncertainty surrounding the implications of ONRW designations is for States and Tribes to adopt concurrent with the ONRW the implementation methods for that water body that define what attributes of the water will be protected and how this will be accomplished by both point and nonpoint sources. It may make sense for the regulation to include this requirement in order for all parties concerned to know the impact on development of such a designation before adopting an ONRW. ([Advance Notice of Proposed Rule Making, Federal Register, Vol. 63, No.129, July 7, 1998](#), p. 36786)

¹⁷ [Minn. Stat. § 103F.301](#) through [Minn. Stat. § 103F.301](#). Also see Minn. [R. ch. 6105](#).

9. Public participation

Current Approach

Opportunities for public participation are found in two parts of the current rules. The rule governing nondegradation for all waters requires that when establishing reasonable control measures for new or expanding significant discharges¹⁸ the Agency provide public notice and an opportunity for a public hearing according to rules governing permits and certifications¹⁹. With respect to ORVWs, the Agency provides an opportunity for a hearing before prohibiting or restricting new or expanded discharges to ORVWs, and when determining prudent and feasible alternatives for proposed discharges to restricted ORVWs²⁰.

Proposed Approach

As noted in item 4 above, the proposed rule provides separate procedures for individual NPDES permits for wastewater treatment activities and individual section 401 certifications (proposed Minn. R. 7050.0345), and for general NPDES permits, individual NPDES permits for stormwater activities and section 401 certifications of general permits or authorizations (proposed Minn. R. 7050.0355). It follows that each part has its own public participation requirements. What is common between the procedures is that the Agency makes available for comment the alternatives analysis, justification for social and economic development, and the Agency's preliminary antidegradation determination. The opportunity for comment is provided through existing procedures found in Minn. R. ch. 7001 (Permits and certifications).

Why the change?

Federal antidegradation regulations require public participation in the Agency's decision of whether lowering of water quality is necessary to accommodate important economic or social development. In order to provide for meaningful input, those interested in the Agency's determinations need adequate information on which to comment.

¹⁸ [Minn. R. 7050.0185, subp. 8.](#)

¹⁹ [Minn. R. ch. 7001.](#)

²⁰ [Minn. R. 7050.0180, subp. 8.](#)