

Proposed General Antidegradation Tier 2 Implementation Procedures

The following information and implementation procedures apply to all activities which are subject to Tier 2 protection.

What is Tier 2 protection?

High water quality¹ may not be lowered unless there is a demonstrated need for important social or economic development in the area in which the waters are located. In the decision of whether and to what extent water quality may be lowered there must be public participation and intergovernmental cooperation. The highest statutory and regulatory requirements for point sources and all cost-effective and reasonable best management practices for nonpoint sources must be achieved. The objective of antidegradation Tier 2 protection is to prevent unnecessary lowering of high water quality.

How is Tier 2 protection implemented?

Tier 2 protection is implemented and enforced through the issuance and reissuance of control documents for regulated activities where applicants seek authorization to discharge into waters of the state. Through a decision process (Tier 2 review) the Agency makes a determination of whether and to what extent high water quality may be lowered.

How is a Tier 2 review triggered?

A Tier 2 review is required when the issuance or reissuance of a control document has the potential for a net increase in permitted loading to a water of the state. A “net increase” means an increase beyond that allowed as of the effective date. The effective date is one of the following:

- i. Jan. 1, 1988, the date upon which rules were adopted to prevent unnecessary degradation of high water quality;
- ii. where a Tier 2 review has been conducted after Jan. 1, 1988, and an increase in loading allowed through that review, the effective date is the date of permit issuance granting the increased loading; or
- iii. where regulatory control for an activity or class of activities is authorized after adoption of this rule, the effective date is the date upon which such control is implemented.

¹ High water quality is that quality better than the criterion of the applicable standard, on a parameter by parameter basis. Waters are assumed to be of high quality unless they are impaired.

What are the basic steps in the Tier 2 review process?

Antidegradation Tier 2 review is a multi-step process. The **first step is the alternatives analysis** which is an investigation of prudent and feasible² alternatives that will avoid or minimize net increases in permitted loading through pollution prevention and/or treatment. The alternatives analysis focuses on parameters of concern (POCs) which are pollutants or causes of water pollution that diminish the chemical, physical or biological condition of the receiving water which can reasonably be expected in, or result from, the discharge, and for which an antidegradation review is conducted. A review cannot be conducted for every conceivable pollutant or cause of pollution. Rather, POCs will be selected based on the potential for degradation. Implementation of revised antidegradation provisions will emphasize alternatives analysis early in facility or activity planning processes. Thus it is important to identify POCs early in the planning process to ensure the alternatives analyses provide for the best environmental benefit. The Agency will, through guidance, identify POCs that should be addressed for various types of discharges. Based on the discharge-specific and/or site-specific nature of some discharges, the Agency may require additional parameters to be reviewed.

For individual permits or authorizations, the applicant will be responsible for gathering information and indentifying alternatives (control measures) that avoid or minimize permitted loading. The Agency will provide, again through guidance, activity-specific control measures for the applicant to consider, however the applicant will not be limited to the specified alternatives. Information regarding the selection of prudent and feasible alternatives will be submitted to the Agency for review.

The alternatives analysis for general permits or authorizations will be conducted by the Agency at the time of permit development. Selected alternatives (control measures) that avoid net increases in permitted loading will be incorporated into permit conditions.

When an alternative is not available that would avoid a net increase in permitted loading, or where general permit conditions cannot be achieved, a **second step** requires the applicant or project proponent to **select the least degrading prudent and feasible alternative**. The applicant or project proponent must ensure that the implementation of any alternatives that does not avoid increases in net permitted loading will maintain existing and designated uses.

A **third step**, also required when avoidance of net increases in permitted loading is not possible, **is the demonstration of importance**. The applicant or project proponent must provide justification that increased loading is important for social and economic

² The use of the term “prudent and feasible” is used in the context of the alternatives analysis because it is a familiar standard currently used to test if discharges to Restricted ORVWs may be avoided. “Feasible” means an alternative that can be implemented with existing technology and in a manner that meets good engineering standards. An alternative is not feasible if the technology involved is experimental or unproven, or cannot be implemented with sound engineering. An alternative is “prudent” if it is better for the environment than what was originally proposed, and does not have unusual or extraordinary social or economic costs.

development. In other words, the applicant or project proponent must demonstrate how the benefits of the proposed activity outweigh the lowering of water quality. The projected change in the quality of the receiving water and the projected available assimilative capacity³ remaining as a result of the proposed activity must be assessed in order to make a determination. Where adequate assessment information is not available but is reasonably attainable, it will be the responsibility of the applicant for its provision.

Ultimately the Agency will make a determination of whether the increase in permitted loading and the resulting lowering of water quality is important for social or economic development in the area where the waters are located. These determinations will be made on a case-by-case basis using best professional judgment. The applicant's demonstration of importance will need to be reasonable, meaning that estimation methods for net positive and negative impacts need to be adequately explained and the conclusions need to be supported by information readily accessible for the Agency's review. The Agency will use information provided by both the applicant, and that received through the public participation and intergovernmental cooperation process, in its decision. In its determination the Agency will compare:

- An estimate of the net positive social, economic and environmental changes to be realized through the proposed activity, including but not limited to the number and types of new jobs developed and the tax revenues generated.
- An estimate of the net negative social, economic and environmental changes of the proposed activity, including but not limited to lowered recreation, tourism, or other commercial opportunities, impacts on aquatic organisms, aquatic habitat and wildlife, loss of assimilative capacity for future industry and development, increased water treatment costs or reduced downstream property values.

The **public participation and intergovernmental cooperation requirement** in the Tier 2 review process provides a way to receive input regarding activities that have the potential to lower water quality through increases in permitted loading. This process will allow the public and affected government agencies the opportunity to comment on the alternatives analysis and the demonstration of importance for social or economic development.

Where possible, opportunity for comments will be provided early in the planning process. For example, comments may be solicited during the facility planning stage for waste water treatment operations requiring individual permits. This may be achieved through the public hearing requirement found in Minn. R. chapter 7077.0272. For general permits, where the alternatives analysis is conducted by the Agency during general permit development, there will be opportunity to comment on the selection of alternatives (i.e. permit conditions) that avoid or minimize net increases in loading.

Any application for authorization to increase net permitted loading and thus lower high water quality must include information regarding the selection of the least degrading

³ Available assimilative capacity is the difference between the water quality criterion of a pollutant parameter and the ambient water quality for that pollutant parameter where it is better than the criterion.

alternative and the demonstration of importance. This information will be posted on the Agency's website when the complete application is submitted. Further opportunity for comment is provided when the draft permit is noticed, following procedures outlined in Minn. R. chapter 7001.0110.

What is the relationship between the protection of Outstanding Resource Value Waters (ORVWs) and Tier 2 protection?

Increases in loading to Prohibited Outstanding Resource Waters (P-ORVWs) beyond that allowed as of the date of designation will not be permitted unless its impact is short term and temporary⁴ in nature. Because increased loading that causes long term degradation is not permitted to P-ORVWs, Tier 2 implementation does not apply to these waters. However, Tier 2 implementation procedures are required for activities impacting Unlisted Outstanding Resource Waters (UL-ORVWs) and Restricted Outstanding Resource Waters (R-ORVWs) where they are of high quality. Where water quality is allowed to be lowered, through the Tier 2 review process, the special attributes or characteristics that make the water a UL-ORVWs and R-ORVWs must be maintained (not degraded).

What is the relationship between restoration or impaired waters and Tier 2 protection?

Activities impacting waters with an approved TMDL must follow the TMDL and protect existing uses. Activities impacting impaired waters without an approved TMDL must not contribute to the impairment. Existing uses must not be removed by any activity impacting an impaired water.

⁴ The revised rule will allow for temporary (weeks, months) lowering of water quality. Applications for temporary degradation will be considered on a case-by-case basis, be protective of existing uses, limit water quality changes to the shortest possible time, consider non- and minimally-degrading alternatives, consider time intervals between activities that cause temporary lowering of water quality, and require public participation.

The expectation is that after the temporary activity causing the water quality degradation has ended water quality will return to the previous water quality levels.

Missouri's recently-adopted rule is a good example of what Minnesota is likely to adopt. The rule defines temporary degradation as it applied to Tier 3 protection as:

"Degradation that is non-permanent and the effects can be regarded as insignificant following a review of the: a) length of time during which water quality will be lowered, b) percent change in ambient conditions, c) parameters affected, d) likelihood for long term water quality benefits to the segment (e.g., as may result from dredging of contaminated sediments), e) degree to which achieving the applicable Water Quality Standards (WQS) during the proposed activity may be at risk, and f) potential for any residual long-term influences on existing uses."