

1. Purpose

The purpose of antidegradation is to achieve and maintain the highest possible quality of waters of the state. To achieve this purpose:

- 1.1. Existing uses and the level of water quality necessary to protect those uses must be maintained and protected;
- 1.2. Where, for any parameter, the water quality exceeds levels necessary to support the propagation of fish, shellfish, and wildlife and recreation in and on the water, that water shall be considered high quality for that parameter. High water quality must be maintained and protected on unless the commissioner determines, after full satisfaction of public participation and intergovernmental coordination provisions of this rule, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. Further, the commissioner shall assure that the highest statutory and regulatory requirements for all new and existing point sources and all prudent and feasible best management practices for nonpoint source control are achieved; and
- 1.3. Where the commissioner determines the maintenance of water quality is essential to preserve the exceptional water quality, wilderness, recreational, cultural, aesthetic or scientific resource characteristics of outstanding resource value waters, that water quality must be maintained and protected.

2. Definitions¹

“Agency” means the Citizens’ Board of the Minnesota Pollution Control Agency.

“Alternatives analysis” means an evaluation of alternatives that avoid and minimize net increases in loading or otherwise avoid and minimize degradation to receiving waters through prudent and feasible prevention, treatment and/or mitigation alternatives.

“Antidegradation”, as part of water quality standards, means policy and implementation procedures for the protection of existing uses, high water quality and outstanding resource value waters.

“Antidegradation review” means the process whereby the commissioner evaluates control document applications to ensure that:

- a) existing uses are maintained;

¹ Please note that these are “working definitions”, meaning that some definitions go beyond simply defining the term, but rather give further explanation on how the term or concept is used in implementing the rule. Definitions in the Rule as Proposed will be more concise.

- b) high water quality is not lowered unless it is necessary to accommodate important economic and social development in the area in which the receiving waters are located;
- c) and that water quality essential to preserve the exceptional characteristics of outstanding resource value waters are maintained.

“Applicant” means any person seeking authorization from the agency, through the issuance of a control document, to discharge pollutants or otherwise cause degradation of receiving waters.

“Applicant’s antidegradation demonstration”, as part of antidegradation review of applications for individual CWA § 402 National Pollutant Discharge Elimination System permits, CWA § 401 water quality certifications and State Disposal System permits, means information submitted by the applicant which includes the characteristics of discharge, an alternatives analysis, and, where required, justification for lowering high water quality to accommodate important economic and social development.

“Application” means an applicant’s request from the agency for control document authorization to discharge pollutants or otherwise cause degradation of receiving waters.

“Assimilative capacity”, means the difference between the applicable water quality criterion for a parameter of concern and the ambient water quality for that parameter where it is better than the criterion. Where natural water quality conditions exceed the applicable water quality criterion, assimilative capacity may be defined as the difference between the natural water quality condition and the ambient water quality for a given parameter.

Assimilative capacity is used to determine the ability of a water body to naturally attenuate a discharged substance without impairing designated uses.

“Average wet weather flow” means the daily average flow for the wettest 30 consecutive days for mechanical plants or for the wettest 180 consecutive days for controlled discharge pond systems.

“Best management practice” or “BMP” means a practice or combination of practices, techniques or measures that are a cost-effective and practicable means of preventing or reducing the amount of water pollution generated by nonpoint sources to a level compatible with water quality goals.

“Calcareous fen” means areas designated through [Minn. Stat. § 103G.223](#) and as described in [Minn. R. 8420.0935](#), subp. 2.

“Clean Water Act”, (CWA) means the federal Water Pollution Control Act, 33 U.S.C. §§1251 et seq.

“Commissioner” means the commissioner of the Minnesota Pollution Control Agency or the commissioner’s designee.

“Control document” means any authorization issued by the agency to any regulated activity that has the potential to degrade waters of the state and which specifies conditions under which the activity is allowed to operate. Control documents include all authorizations issued to satisfy [Minn. Stat. § 115.03](#) including those used to administer National Pollution Discharge System (NPDES) permits, State Disposal System (SDS) permits, and any state certifications granted under §401 of the federal Clean Water Act.

“Critical conditions” means the point in time in which the designated uses within receiving waters are most susceptible to degradation.

“Degradation” or “degrade” means alterations made or induced by human activity resulting in diminished chemical, physical, biological, or radiological conditions of waters of the state. For the purposes of this rule, alteration means any measurable change in water quality, as calculated upon appropriate mixing of the discharge and receiving water.

“Design flow” means the flow at critical conditions and which is used for steady-state wasteload allocation modeling of regulated sewage and industrial waste discharges subject to numeric effluent limits. For sewage waste discharges with a continuous discharge, typically a mechanical treatment facility, the design flow is the design average wet weather flow for the wettest consecutive 30-day period. For sewage waste discharges with a controlled discharge, typically a stabilization pond treatment facility, the design flow is the design average wet weather flow for the wettest consecutive 180-day period. The 180 consecutive days for pond systems is based on either the storage period from approximately November 15 through May 15 or the storage period from approximately May 15 through November 15. For industrial and other waste discharges, the design flow is the design maximum daily flow.

“Designated uses” means those attainable uses required by [Minn. Stat. § 115.44](#), described in [Minn. R. 7050.0140](#) and listed in [Minn. R. 7050.0400](#) to [7050.0470](#) for each water body or segment whether or not they are being attained.

“Disposal system” means a system for disposing of sewage, industrial waste and other wastes, and includes sewer systems and treatment works.

“Draft permit” means a document prepared by the commissioner under [Minn. R. 7001.0100](#) that indicates the commissioner's preliminary decision to issue, modify, revoke and reissue, or reissue a permit, and that indicates the proposed terms and conditions of the permit; or a notice prepared by the commissioner under

[Minn. R. 7001.0100](#) that indicates the commissioner's preliminary decision to deny, to refuse to reissue, or to revoke a permit without reissuance.

“EPA” means the Environmental Protection Agency.

“Effective date”:

- a) for the protection of high water quality, means the date upon which permit conditions were established limiting loading to, or otherwise limiting degradation of, receiving waters where such conditions did not previously exist or where conditions were revised through antidegradation review of the most recently issued permit; or
- b) for the protection of outstanding resource value waters, means:
 - i. the date upon which the outstanding resource value water was designated in rule; or
 - ii. where authorized loading has decreased since the date the outstanding resource value water was designated in rule, the date upon which the reduced loading was specified in the applicable control document.

“Exceptional characteristics of outstanding resource value waters” means characteristics for which an outstanding resource value water was designated including exceptional water quality, wilderness, recreational, cultural, aesthetic, or scientific resource characteristics, or other special qualities which warrant stringent protection from degradation.

“Exceptional water quality” means a characteristic of an outstanding resource value water where the water body processes conditions:

- a) at or approaching natural water quality conditions;
- b) that are of exceptional scientific or educational value; or
- c) where the quality is otherwise unique or extraordinary.

Outstanding resource value waters that are designated because of exceptional water quality may or may not be of high water quality.

“Existing uses” means those uses, and the water quality necessary to protect those uses, actually attained in the water body on or after November 28, 1975, whether or not they are included in water quality standards.

“Existing water quality” means the condition of receiving waters on the effective date.

The existing water quality represents the water quality at or immediately upstream from the point a where a previously unregulated activity would impact receiving waters, or immediately below the point where a regulated activity impacts receiving waters. Existing water quality is expressed either as a concentration of a water quality parameter or by other means to describe the condition of receiving waters. For waters receiving loading from an existing regulated activity, the existing water quality includes the levels

of pollutants already authorized to be discharged in the applicable control document conditions.

Existing water quality may be determined by:

- a) using of existing historical data;
- b) comparison to a water body with similar physical, chemical and biological characteristics, and one which includes similar impacts from point and nonpoint sources of pollution; and
- c) monitoring of receiving waters.

Where monitoring is used to determine exiting water quality, samples are collected in a manner and place, and of such type, number, and frequency as may be considered necessary by the commissioner to adequately reflect the condition of the receiving waters and the effects of the parameters of concern upon those waters. In general samples are collected, preserved, and analyzed following accepted quality control and quality assurance methods, and according to the procedures in [40 CFR pt. 136](#). The commissioner may accept or may develop other methods, procedures, guidelines, or criteria for collecting and analyzing samples and measuring water quality characteristics.

“Feasible”, used in the context of the alternatives analysis, means an alternative that:

- a) is capable of being done with existing technology;
- b) is in accordance with acceptable engineering standards;
- c) is consistent with reasonable public health, safety and welfare requirements;
- d) is legally possible; and
- e) has supportive governance that can be successfully put into practice to accomplish the task.

“Federal designated recreational river segment” means those water bodies designated through the [Wild and Scenic Rivers Act](#) (WSRA) (16 U.S.C. 1271-1287) and as described in WSRA § 2(b) (3).

“Federal designated scenic river segment” means those water bodies designated through the [Wild and Scenic Rivers Act](#) (WSRA) (16 U.S.C. 1271-1287) and as described in WSRA § 2(b) (2).

“Federal designated wild river segment” means those water bodies designated through the [Wild and Scenic Rivers Act](#) (16 U.S.C. 1271-1287) and as described in WSRA § 2(b) (1).

“Final antidegradation determination” means the decision made by the commissioner after review of the applicant’s antidegradation assessment, comments received through public participation and intergovernmental cooperation, and other available information regarding a proposed regulated activity as to whether existing uses are maintained, high water quality is lowered only when deemed necessary for important economic and social

development, and the water quality essential to preserve the exceptional characteristics of outstanding resource value waters is maintained. This decision is made at the time of the agency's final determination to authorize or not authorize an activity through the issuance or denial of a control document.

"High water quality" means that quality better than the criterion of the applicable water quality standard, on a parameter-by-parameter basis. A parameter is assumed to be of high quality unless it is included on the state's most recent CWA § 303(d) impaired waters list.

"Justification for lowering high water quality", as part of the antidegradation demonstration, means the applicant's explanation for why the lowering of high water quality is important for economic and social development in the area in which the receiving waters are located.

"Loading" means the amount of pollutants that is discharged, or is proposed to be discharged, through control document authorization. Where regulated through a numeric effluent limit, loading refers to the:

- a) mass limit expressed in the permit; or
- b) product of the average concentration limit specified in the permit and the design flow, if no mass limit is specified; or
- c) product of the average concentration value derived from the maximum concentration limit specified in the permit using derivation methods established in total maximum daily load procedures and the design flow, if no average concentration limit is specified.

"Measurable change" means the practical ability to detect change in water quality taking into account limitations in analytical technique and sampling variability.

Because analytical techniques change, and repeated sampling and application of statistics can enable detection of progressively smaller changes, the commissioner will generally consider measurable changes to be those that can be determined with ninety-five percent (95%) confidence based on detection limits and precisions of standard methods of analysis. Where smaller changes may be significant to human health or aquatic life protection, the commissioner may consider calculated changes to be measurable.

In regards to the biology conditions of receiving waters, measurable change means a change in trophic status that can be discerned above the normal variability in water quality data using a weight of evidence approach. The change in trophic status does not require a demonstration of statistical significance to be considered measurable.

Mathematical models may be used as a tool in the data analysis to help predict measurable change.

“Mitigation offset” means measures taken to compensate for all or part of a net increase in loading where there is a reduction in loading elsewhere and which results in no or reduced degradation of the receiving water quality. For the purposes of antidegradation review, a proposed mitigation offset resulting in compensation of:

- a) the entire proposed loading to the receiving water means that there is no net increase in loading to that receiving water.
- b) part of the proposed loading to the receiving water requires antidegradation review.

Mitigation offsets may involve point sources, nonpoint sources, or a combination of point and nonpoint sources.

“National Pollutant Discharge Elimination System” (NPDES) means the point source permitting program established pursuant to § 402 of the federal Clean Water Act.

“Natural water quality conditions” means conditions where there is no discernible impact from point or nonpoint source pollutants attributable to human activity or from a physical alteration of wetlands, as defined by water quality monitoring. Where water quality monitoring data are not available, natural water quality may be predicted based on data from a watershed with similar characteristics.

“Net increase in loading” means an increase in loading beyond conditions specified in the permit as of the effective date.

“Nonpoint source” means a land management or land use activity that contributes or may contribute to ground and surface water pollution as a result of runoff, seepage, or percolation and that is not defined as a point source under [Minn. Stat. § 115.01](#), subdivision 11.

"Outstanding resource value waters" are waters within the Boundary Waters Canoe Area Wilderness, Voyageur's National Park, and Department of Natural Resources designated scientific and natural areas, wild, scenic, and recreational river segments, Lake Superior, those portions of the Mississippi River from Lake Itasca to the southerly boundary of Morrison County that are included in the Mississippi Headwaters Board comprehensive plan dated February 12, 1981, and other waters of the state with exceptional water quality, wilderness, recreational, cultural, aesthetic, or scientific resource characteristics, or other special qualities which warrant stringent protection from pollution.

“Parameters of concern” means pollutants or other causes of degradation which can reasonably be expected in or result from a regulated activity, and for which an antidegradation review is conducted.

“Permittee” means any person to whom a control document has been granted.

“Person” means the state or any agency or institution thereof, any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity, including, but not limited to, association, commission or any interstate body, and includes any officer or governing or managing body of any municipality, governmental subdivision, or public or private corporation, or other entity.

“Point source” means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

“Pollutant” means any sewage, industrial waste, or other wastes, as defined in this chapter, discharged into a disposal system or to waters of the state.

“Preliminary antidegradation determination” means the decision made by the commissioner after review of the applicant’s antidegradation assessment and other available information regarding a proposed regulated activity as to whether existing uses are maintained, high water quality is lowered only when deemed necessary for important economic and social development, and the water quality essential to preserve the exceptional characteristics of outstanding resource value waters is maintained. This decision is made prior to comments received through public participation and intergovernmental cooperation.

“Prohibited outstanding resource value waters” means those water bodies listed in subpart 5. In general, prohibited outstanding resource value waters are designated as such because of exceptional water quality.

“Prudent”, used in context of the alternatives analysis, means an alternative that is selected with care and sound judgment, and does not have unusual or extraordinary economic, social or environmental costs.

“Receiving waters” means waters of the state which receive discharges from, or are otherwise impacted by, regulated activities.

“Regulated activity” means any activity authorized by the agency which requires compliance with water quality standards. For purposes of this rule, the term “proposed activity” means a proposed activity that is also a regulated activity.

“Restricted outstanding resource value water” means those water bodies listed in subpart 6. Some restricted outstanding resource value waters were designated for reasons other than exceptional water quality. Where exceptional water quality is not a characteristic of a restricted outstanding resource value water, yet the water body is of high quality, that quality may only be lowered through antidegradation review.

“Scientific and natural areas” means areas designated through [Minn. Stat. § 84.033](#) and described in [Minn. Stat. § 86A.05](#), subdivision 5.

“State designated recreational river segment” means water bodies designated through [Minn. Stat. §§ 103F.301](#) to [103F.345](#) and as described in [Minn. Stat. § 103F.311](#), subdivision 4.

“State designated scenic river segment” means water bodies designated through [Minn. Stat. §§ 103F.301](#) to [103F.345](#) and as described in [Minn. Stat. § 103F.311](#), subdivision 7.

“State designated wild river segment” means water bodies designated through [Minn. Stat. §§ 103F](#) to [103F.345](#) and as described in [Minn. Stat. § 103F.311](#), subdivision 9.

“Total maximum daily load” or “TMDL” means the sum of the individual wasteload allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources, and natural water quality conditions. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

“Treatment works” means any plant, disposal field, lagoon, dam, pumping station, constructed drainage ditch or surface water intercepting ditch, incinerator, area devoted to sanitary land fills, or other works not specifically mentioned herein, installed for the purpose of treating, stabilizing or disposing of sewage, industrial waste, or other wastes.

“Water quality standards” means designated uses (as described in [Minn. R. 7050.0140](#)), associated criteria necessary to support designated uses (as described in [Minn. R. 7050.0220](#) through [7050.0227](#)), and antidegradation provisions as described in this rule.

“Waters of the state” has the meaning given in [Minn. Stat. § 115.01](#), subdivision 22, with the exception that disposal systems or treatment works operated under permit or certificate of compliance of the agency are not “waters of the state.”

3. Applicability

These rules are applicable to any regulated activity, whether the source is point or nonpoint, which has the potential to degrade waters of the state.

4. Antidegradation review

Except where specified in subpart 4.1.2. (Exemptions), antidegradation review must be conducted for the following new, reissued or modified authorizations that have the potential to result in a net increase in loading or that would otherwise degrade waters of the state:

- a) Clean Water Act (CWA) § 402 National Pollutant Discharge Elimination System (NPDES) individual and general permits;
- b) CWA § 401 state certifications for federal permits; and
- c) State Disposal System (SDS) permits not associated with NPDES permits and that are anticipated to result in degradation of receiving waters.

4.1. Review procedures for individual authorizations (**Note: See subpart 4.2 regarding review procedures for activities covered under NPDES general permits**)

Antidegradation review of individual CWA § 402 NPDES permits, CWA § 401 water quality certifications, and SDS permits must follow the procedures described below.

4.1.1. Identification of parameters of concern

The commissioner shall identify parameters of concern based the environmental risks of pollutants and other causes of degradation associated with the proposed activity and the sensitivity of the receiving waters.

4.1.2. Exemptions

The activities listed below do not require antidegradation review.

- a) Control document renewals where authorized loading remains unchanged or is reduced, and where there is no change in frequency, duration or location of the discharge.
- b) Issuance of new effluent limits based on improved monitoring data or new water quality criteria or values that are not the result of changes in pollutant loading.
- c) Issuance of new effluent limits resulting from an EPA-approved TMDL where there is a maintenance or reduction in a wasteload allocation.
- d) Increases in loadings resulting from a previous or simultaneous enforceable decrease in loading from other sources contributing to the receiving waters, such that there is no net increase in loading to the receiving waters at the location of the proposed activity.
- e) Increases in flow, if the increase is within an authorized flow limit of the facility, or where the flow is not specifically limited in the current control document the increased flow does not cause a net increase in loading or otherwise degrade the receiving waters.
- f) Bypasses not prohibited by 40 CFR § 122.41(m).
- g) Response actions pursuant to the:

- i. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA);
 - ii. Resource Conservation and Recovery Act (RCRA);
 - iii. Minnesota Environmental Response and Liability Act (MERLA) as provided in [Minn. Stat. § 115 B](#);
 - iv. petroleum tank release cleanup as provided in [Minn. Stat. § 115 C](#), or
 - v. similar federal, state or tribal actions, undertaken to alleviate a release into the environment of hazardous substances, pollutants or contaminants which may pose an imminent danger to public health or welfare.
- h) Thermal discharges covered by provisions of a CWA § 316(a) variance.
- i) Non-contact cooling water discharges that meet all of the following conditions.
 - i. The receiving water is the source of the non-contact cooling water.
 - ii. The non-contact cooling water contains no additives other than those necessary to provide a safe drinking water supply or those similar in type and amount to substances typically added to a public drinking water supply.
 - iii. The non-contact cooling water is not mixed with other wastewater streams that result in an increase in net loading or otherwise result in degradation of receiving waters.
- j) Discharges to Class 7 receiving waters except where:
 - i. existing and designated uses of the Class 7 water would be removed;
 - ii. downstream high water quality of non-Class 7 receiving waters will be lowered; and
 - iii. the discharge lowers water quality essential to preserve the exceptional characteristics of downstream outstanding resource value waters.
- k) A regulated activity that results in temporary and limited impacts to high water quality may be exempt from antidegradation review on a case-by-case basis. The applicant shall provide a request for this exemption prior to the submittal of a control document application. The request must include the following information:
 - i. identification of affected receiving waters,
 - ii. parameters likely to cause adverse impacts;
 - iii. length of time during which the water quality will be impacted;
 - iv. anticipated net changes in water quality over the time period the receiving waters are impacted;
 - v. cumulative effects on water quality from multiple exemptions for temporary and limited impacts;
 - vi. degree to which achieving the applicable designated use may be at risk; and
 - vii. potential for any residual long-term influences on existing uses.

The commissioner shall review the information submitted by the applicant and other reliable information before making a determination of whether the activity is temporary and limited. Where short term and limited exemptions are approved, permit conditions must include an enforceable plan to assure that water quality is returned to pre-activity conditions within 12 months from when high water quality is initially impacted by the activity. Exemptions for temporary and limited impacts shall be granted only when existing uses must be maintained.

4.1.3. Applicant's antidegradation assessment

The applicant shall provide an antidegradation assessment with sufficient information for the commissioner to determine whether and to what extent water quality may be lowered. The commissioner shall advise the applicant in writing of any deficiency in the antidegradation assessment. Review of the deficient portion of the antidegradation assessment will be suspended until the applicant has supplied the necessary information to correct the deficiency.

The antidegradation assessment must include the following information.

4.1.3.1. General information

Name and address of the applicant, and if different, of the facility or activity that is the subject of the application;

A concise description of the facility or activity that is the subject of the application; and

Identification of receiving waters, including a map showing the receiving waters with the location of the associated proposed discharge points clearly marked.

4.1.3.2. Discharge information

A list of the parameters of concern.

Determination of changes in loading. The applicant shall compare the loading expected from the proposed activity to the loading authorized by the agency as of the effective date. Estimated net changes in loading shall be based upon the following:

- a) For sewage waste discharges with mechanical treatment, preliminary effluent limits and the design average wet weather flow for the wettest consecutive 30-day period; or

- b) For sewage waste discharges with controlled discharge pond treatment, preliminary effluent limits and the wettest consecutive 180-day period; or
- c) For industrial waste discharges, preliminary effluent limits and the design maximum daily flow; or
- d) For stormwater discharges, projected changes in land use or other hydrologic changes resulting from the regulated activity.

4.1.3.3. Alternatives analysis

The applicant shall provide an evaluation of alternatives that avoid and minimize net increases in loading or otherwise avoid and minimize degradation of receiving waters through prudent and feasible prevention, treatment or mitigation offsets. Where receiving waters are of high water quality and there are no prudent and feasible alternatives that would avoid net increases in loading or would otherwise avoid degradation, the applicant shall identify prudent and feasible alternatives that result in the least degradation to receiving waters.

Alternatives for evaluation must include, but are not limited to:

- a) practices that incorporate pollution prevention techniques;
- b) additional or enhanced treatment levels;
- c) reduction in the scale of the activity;
- d) discharge to alternative locations;
- e) mitigation offsets;
- f) recycle/reuse of pollutants and water;
- g) improved operation and maintenance of existing pollution prevention and treatment systems;
- h) seasonal or controlled discharge options to avoid adverse water quality impacts at critical conditions of the receiving waters;
- i) establishing buffer areas; and
- j) land application and infiltration to capture pollutants and reduce surface runoff.

The applicant shall provide a statement describing the design parameters, expected performance, construction, operation and maintenance costs, and reliability of:

- k) the alternative necessary to avoid net increase in loading; and
- l) where there are no prudent and feasible alternatives that would avoid net increases in loading, the alternative determined to be prudent and feasible which results in the least degradation.

4.1.3.4. Justification for lowering high water quality

Where prudent and feasible alternatives are not available that would avoid net increases in loading or would otherwise avoid degrading high water quality of receiving waters, the applicant shall provide a statement of the net environmental, social and economic impacts of the proposed activity. The applicant shall provide the following information.

- a) The extent existing water quality of the receiving waters will change as a result of the proposed activity. Where feasible, the assessment shall include an estimate of the change in assimilative capacity at critical conditions.
- b) Impacts to aquatic life and associated habitats, including the extent to which the resources adversely impacted by the degradation are unique or rare within the locality, state or nation.
- c) Where feasible, net changes to:
 - number and types of jobs;
 - median household income;
 - state and local tax revenue;
 - bond ratings;
 - production of goods and services;
 - property values;
 - social services;
 - recreational, tourism or other commercial opportunities;
 - other impacts to the surrounding environment, and
 - factors subject to change, such as aesthetics, that cannot be reasonably quantified.

The applicant shall provide a summary justifying why the lowering of high water quality is important for social and economic development in the area in which the waters are located.

4.1.4. Preliminary antidegradation determination

The commissioner shall make a preliminary determination of whether and to what extent water quality will be lowered based upon information presented through subparts 4.1.3. (Applicant's antidegradation assessment) and other information obtained by the commissioner. Where the proposed activity would result in the lowering of high water quality, the commissioner shall consider how the activity by itself or in conjunction with other regulated activities would impact existing, high water quality, and outstanding resource value waters.

4.1.4.1. Protection of existing uses

The commissioner shall not approve a proposed activity that results in the removal of an existing use. Evaluation for the protection of existing uses shall include consideration of:

- a) aquatic biota and wildlife that utilize or are present in the receiving waters;
- b) habitat that supports existing aquatic biota, wildlife or plant life;
- c) water supply or commercial activity that depends directly on the preservation of water quality; and
- d) whether the proposed activity would impair or eliminate an existing use for reasons that cannot be tied to any applicable water quality criterion.

For the purposes of this rule, wetland existing uses are maintained when compliance with [Minn. R. 7050.0186](#) is achieved.

4.1.4.2. Protection of high water quality

The commissioner shall not approve the proposed activity where a prudent and feasible alternative exists that would avoid net increases in loading or would otherwise avoid degradation of the receiving waters. Where such an alternative is not available, the commissioner shall approve the lowering of high water quality only through alternatives that minimize the lowering of high water quality through prudent and feasible prevention, treatment, or mitigation offsets.

The commissioner shall not approve the lowering of high water quality when the net environmental, social and economic changes resulting from the proposed activity are not important economic and social development. The commissioner shall consider the following in determining the importance of economic and social development:

- a) Economic benefits, such as increases in employment, median household income, tax revenue, productivity, property values, and recreational, tourism and other commercial opportunities;
- b) Providing and contributing to social services;
- c) Prevention or remediation of environmental or public health threats;
- d) Trade offs between environmental media; and
- e) The value of the water resource, including:
 - i. The extent to which the resources or characteristics adversely impacted are unique or rare within the locality, state, of nation;

- ii. Benefits associated with high water quality for uses such as fishing, recreation or tourism; and
- iii. Benefits of preserving assimilative capacity for future generations to meet their own needs.

Where high water quality is lowered, the commissioner shall not approve a proposed activity that will remove a designated use, unless the activity is authorized through a variance from standards as specified in [Minn. R. 7050.0190](#).

4.1.4.3. Protection of outstanding resource value waters

The commissioner shall not approve a proposed activity resulting in the lowering of water quality of an outstanding resource value water where that quality is essential to preserve the exceptional water quality, wilderness, recreational, cultural, aesthetic, or scientific resource characteristics of the water body.

4.1.4.3.1. Protection of designated prohibited outstanding resource value waters

The commissioner shall prohibit any proposed activity which causes a net increase in loading or would otherwise degrade the exceptional water quality of prohibited outstanding resource value waters listed subpart 5 (Designated prohibited outstanding resource value waters).

4.1.4.3.2. Protection of undesignated prohibited outstanding resource value waters

Until such time water bodies are established in rule as prohibited outstanding resource value waters, the commissioner shall provide protection afforded in subpart 4.1.4.3.1. (Protection of designated prohibited outstanding resource value waters) to water bodies identified as federal or state designated wild river segments and water bodies associate with state designated scientific and natural areas.

4.1.4.3.3. Protection of designated restricted outstanding resource value waters

The commissioner shall restrict any proposed activity to the extent necessary to preserve the exceptional characteristics of restricted outstanding resource value

waters listed in subpart 6 (Designated restricted outstanding resource value waters). Where a restricted outstanding resource value water was designated for reasons other than exceptional water quality characteristics and the water body exhibits high water quality, lowering of water quality may only be approved through procedures specified in subpart 4 (Antidegradation review) of these rules.

4.1.4.3.4. Protection of undesignated restricted outstanding resource value waters

Until such time water bodies are established in rule as restricted outstanding resource value waters, the commissioner shall provide protection afforded in subpart 4.1.4.3.3. (Protection of designated restricted outstanding resource value waters) to waters bodies identified as federal or state designated scenic or recreational river segments and to state designated calcareous fens.

4.1.4.4. Thermal discharges

The preliminary antidegradation determination must be consistent with section 316 of the Clean Water Act, United States Code, title 33, § 1326 where there is the potential for degradation resulting from thermal discharges.

4.1.4.5. Applicant notified of commissioner's preliminary decision

The commissioner shall provide the applicant with written notification of the commissioner's preliminary antidegradation determination.

4.1.5. Public participation and intergovernmental cooperation

Public notice of the antidegradation assessment and the preliminary determination for activities covered under individual CWA 402 § NPDES permits shall be concurrent with and follow procedures described in [Minn. R. 7001.0100](#), subparts 4 and 5. With respect to CWA § 401 state certifications of federal permits, the public notice of the antidegradation assessment and the preliminary determination shall be concurrent with and follow procedures described in [Minn. R. 7001.1440](#).

4.1.6. Final Antidegradation Determination

The commissioner shall consider comments received through subpart 4.1.5. (Public participation and intergovernmental cooperation) and make a final antidegradation determination of whether the authorization achieves protection specified in subparts 4.1.4.1. through 4.1.4.4.

The final antidegradation determination shall be included with the agency's final determination to authorize or not authorize an activity following provisions specified in [Minn. R. 7001.0140](#), [7001.1100](#) and [7001.1450](#).

4.2. Review procedures for CWA 402 § NPDES general permits

The commissioner shall conduct antidegradation review of regulated activities covered under CWA 402 § NPDES general permits where the issuance of the new, reissued or modified permit has the potential to result in net increases in loading or that otherwise have the potential to degrade receiving waters. The review must consider parameters of concern based on the environmental risks of pollutants and other causes of degradation associated with the activity covered under the general permit.

4.2.1. Antidegradation assessment and preliminary determination

The commissioner shall conduct an analysis of prudent and feasible alternatives that avoid and minimize net increases in loading resulting from the issuance of the general permit. The commissioner shall document the rationale used to select parameters of concern and prudent and feasible alternatives which result in the least degradation. Where prudent and feasible alternatives are not available to avoid net increases in loading, the commissioner shall provide justification for why the lowering of high water quality is necessary to accommodate important economic and social development.

The selected alternatives shall be incorporated into the conditions of the draft permit. The commissioner shall include with the draft permit a preliminary determination that the issuance of the permit will:

- a) not result in a net increase in loading; or
- b) where prudent and feasible alternatives are not available to avoid net increases in loading:
 - i. maintain existing uses;
 - ii. minimize the lowering of high water quality to the extent that is prudent and feasible, and that the lowering of high water quality is necessary to accommodate important economic and social development; and
 - iii. maintain the water quality essential to preserve the exceptional characteristics of outstanding resource value waters.

4.2.2. Public participation and intergovernmental cooperation

The commissioner shall provide an opportunity for comment on the antidegradation assessment and preliminary determination (subpart 4.2.1.) through the notice of intent to issue a general permit in the *State Register* as specified in [Minn. R. 7001.0210](#), subpart 4.

4.2.3. Final antidegradation determination

The commissioner shall consider information presented through subpart 4.2.2. (Public participation and intergovernmental cooperation) before making a final determination that the issuance of the permit will:

- a) not result in a net increase in loading; or
- c) where prudent and feasible alternatives are not available to avoid net increases in loading:
 - i. maintain existing uses;
 - ii. minimize the lowering of high water quality to the extent that is prudent and feasible, and that the lowering of high water quality is necessary to accommodate important economic and social development; and
 - iii. maintain the water quality essential to preserve the exceptional characteristics of outstanding resource value waters.

4.2.4. Individual antidegradation review not required

Antidegradation requirements are satisfied where an applicant certifies that permit conditions specified in the general permit to can and will be met. In such cases, further antidegradation review of applications for coverage under the general permit is not required.

4.3. Multiple authorizations

Where multiple authorizations are required for a specific regulated activity, the commissioner shall conduct one antidegradation review. The commissioner shall determine under which control document the review will be conducted.

5. Designated prohibited outstanding resource value waters

For the purposes of this rule the following waters shall be considered prohibited outstanding resource value waters:

- Waters within the Boundary Waters Canoe Area Wilderness;
- those portions of Lake Superior north of latitude 47 degrees, 57 minutes, 13 seconds, east of Hat Point, south of the Minnesota-Ontario boundary, and west of the Minnesota-Michigan boundary;
- Voyageur's National Park;

- Department of Natural Resources designated scientific and natural areas include but are not limited to:
 - Boot Lake, Anoka County;
 - Kettle River in sections 15, 22, 23, T 41 N, R 20, Pine County
 - Pennington Bog, Beltrami County;
 - Purvis Lake-Ober Foundation, Saint Louis County;
 - Waters within the borders of Itasca Wilderness Sanctuary, Clearwater County;
 - Iron Springs Bog, Clearwater County;
 - Wolsfeld Woods, Hennepin County;
 - Green Water Lake, Becker County;
 - Blackdog Preserve, Dakota County;
 - Prairie Bush Clover, Jackson County;
 - Black Lake Bog, Pine County;
 - Pembina Trail Preserve, Polk County; and
 - Falls Creek, Washington County.

State and federal designated wild river segments include but are not limited to:

- Kettle River from the site of the former dam at Sandstone to its confluence with the Saint Croix River;
- Rum River from Ogechie Lake spillway to the northernmost confluence with Lake Onamia.

6. Designated restricted outstanding resource value waters

For the purposes of this rule the following waters shall be considered restricted outstanding resource value waters:

- Lake Superior, except those portions identified in subp. 4 as a prohibited discharges zone;
- Those portions of the Mississippi River from Lake Itasca to the southerly boundary of Morrison County that are included in the Mississippi Headwaters Board comprehensive plan dated February 12, 1981;
- Lake trout lakes, both existing and potential, as determined by the agency in conjunction with the Minnesota Department of Natural Resources, outside the boundaries of the Boundary Waters Canoe Area Wilderness and Voyageurs National Park and identified in parts [7050.0460](#) to [7050.0470](#);
- Waters with a federal or state scenic or recreational designation include but are not limited to:
 - Saint Croix River, entire length;
 - Cannon River from northern city limits of Faribault to its confluence with the Mississippi River;
 - North Fork of the Crow River from Lake Koronis outlet to the Meeker-Wright county line;

- Kettle River from north Pine County line to the site of the former dam at Sandstone;
- Minnesota River from Lac qui Parle dam to Redwood County State-Aid highway 11;
- Mississippi River from County State-Aid Highway 7 bridge in Saint Cloud to northwestern city limits of Anoka; and
- Rum River from State Highway 27 bridge in Onamia to Madison and Rice Streets in Anoka.
- Waters associated with calcareous fens include but are not limited to:
 - Becker County:
 - Spring Creek WMA NHR fen, 34 (T.142, R.42, S.13);
 - Carver County:
 - Seminary fen, 75 (T.116, R.23, S.35);
 - Clay County:
 - Barnesville Moraine fen, 44 (T.137, R.44, S.18);
 - Barnesville WMA fen, 10 (T.137, R.45, S.1);
 - Barnesville WMA fen, 43 (T.137, R.44, S.18);
 - Felton Prairie fen, 28 (T.142, R.46, S.36);
 - Felton Prairie fen, 36 (T.141, R.46, S.13);
 - Felton Prairie fen, 48 (T.142, R.45, S.31);
 - Felton Prairie fen, 53 (T.141, R.46, S.24);
 - Haugtvedt WPA North Unit fen, 54 (T.137, R.44, S.28, 29); and
 - Spring Prairie fen, 37 (T.140, R.46, S.11);
 - Clearwater County:
 - Clearbrook fen, 61 (T.149, R.37, S.17);
 - Dakota County:
 - Black Dog Preserve fen, 63 (T.27, R.24, S.34);
 - Fort Snelling State Park fen, 25 (T.27, R.23, S.4); and
 - Nicols Meadow fen, 24 (T.27, R.23, S.18);
 - Goodhue County:
 - Holden 1 West fen, 3 (T.110, R.18, S.1);
 - Perched Valley Wetlands fen, 2 (T.112, R.13, S.8); and
 - Red Wing fen, 72 (T.113, R.15, S.21);
 - Houston County: Houston fen, 62 (T.104, R.6, S.26);
 - Jackson County:
 - Heron Lake fen, 45 (T.103, R.36, S.29); and
 - Thompson Prairie fen, 20 (T.103, R.35, S.7);
 - Le Sueur County:
 - Ottawa Bluff fen, 56 (T.110, R.26, S.3);
 - Ottawa WMA fen, 7 (T.110, R.26, S.11); and
 - Ottawa WMA fen, 60 (T.110, R.26, S.14);
 - Lincoln County:

- Hole-in-the-Mountain Prairie fen, 6; Pipestone (T.108, R.46, S.1; T.109, R.45, S.31);
- Mahnomen County:
 - Waubun WMA fen, 11 (T.143, R.42, S.25);
- Marshall County:
 - Tamarac River fen, 71 (T.157, R.46, S.2);
 - Viking fen, 68 (T.155, R.45, S.18);
 - Viking fen, 70 (T.155, R.45, S.20); and
 - Viking Strip fen, 69 (T.154, R.45, S.4);
- Martin County:
 - Perch Creek WMA fen, 33 (T.104, R.30, S.7);
- Murray County:
 - Lost Timber Prairie fen, 13 (T.105, R.43, S.2);
- Nicollet County:
 - Fort Ridgely fen, 21 (T.111, R.32, S.6); and
 - Le Sueur fen, 32 (T.111, R.26, S.16);
- Nobles County:
 - Westside fen, 59 (T.102, R.43, S.11);
- Norman County:
 - Agassiz-Olson WMA fen, 17 (T.146, R.45, S.22);
 - Faith Prairie fen, 15 (T.144, R.43, S.26);
 - Faith Prairie fen, 16 (T.144, R.43, S.35);
 - Faith Prairie fen, 27 (T.144, R.43, S.25); and
 - Green Meadow fen, 14 (T.145, R.45, S.35, 36);
- Olmsted County:
 - High Forest fen, 12 (T.105, R.14, S.14, 15); and
 - Nelson WMA fen, 5 (T.105, R.15, S.16);
- Pennington County:
 - Sanders East fen, 65 (T.153, R.44, S.7);
 - Sanders East fen, 74 (T.153, R.44, S.7); and
 - Sanders fen, 64 (T.153, R.44, S.18, 19);
- Pipestone County:
 - Burke WMA fen, 57 (T.106, R.44, S.28); and
 - Hole-in-the-Mountain Prairie fen, 6 (see Lincoln County, item J);
- Polk County:
 - Chicog Prairie fen, 39 (T.148, R.45, S.28);
 - Chicog Prairie fen, 40 (T.148, R.45, S.33);
 - Chicog Prairie fen, 41 (T.148, R.45, S.20, 29);
 - Chicog Prairie fen, 42 (T.148, R.45, S.33);
 - Kittleson Creek Mire fen, 55 (T.147, R.44, S.6, 7);
 - Tympanuchus Prairie fen, 26 (T.149, R.45, S.17); and
 - Tympanuchus Prairie fen, 38 (T.149, R.45, S.16);
- Pope County:
 - Blue Mounds fen, 1 (T.124, R.39, S.14, 15);

- Lake Johanna fen, 4 (T.123, R.36, S.29); and
 - Ordway Prairie fen, 35 (T.123, R.36, S.30);
- Redwood County:
 - Swedes Forest fen, 8 (T.114, R.37, S.19, 20); and
 - Swedes Forest fen, 9 (T.114, R.37, S.22, 27);
- Rice County:
 - Cannon River Wilderness Area fen, 18 (T.111, R.20, S.34); and
 - Cannon River Wilderness Area fen, 73 (T.111, R.20, S.22);
- Scott County:
 - Savage fen, 22 (T.115, R.21, S.17);
 - Savage fen, 66 (T.115, R.21, S.16); and
 - Savage fen, 67 (T.115, R.21, S.17);
- Wilkin County:
 - Anna Gronseth Prairie fen, 47 (T.134, R.45, S.15);
 - Anna Gronseth Prairie fen, 49 (T.134, R.45, S.10);
 - Anna Gronseth Prairie fen, 52 (T.134, R.45, S.4);
 - Rothsay Prairie fen, 46 (T.136, R.45, S.33);
 - Rothsay Prairie fen, 50 (T.135, R.45, S.15, 16); and
 - Rothsay Prairie fen, 51 (T.135, R.45, S.9);
- Winona County:
 - Wiscoy fen, 58 (T.105, R.7, S.15); and
- Yellow Medicine County:
 - Sioux Nation WMA NHR fen, 29 (T.114, R.46, S.17); and
 - Yellow Medicine fen, 30 (T.115, R.46, S.18).