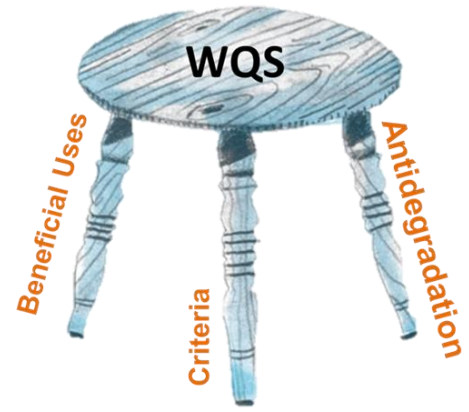




Fact Sheet: R113-22 Antidegradation

Antidegradation is a core component of water quality standards and is used to protect high-quality surface waters from degradation due to permitted discharges. Across Nevada, there are many waters generally recognized as having excellent quality that may lack sufficient data to quantify the water quality. Although many of these waters are not likely to be subject to a point-source discharge, the Nevada Division of Environmental Protection (NDEP) is required by both State and Federal regulation to protect these waters from degradation.



Existing statutory requirements and Federal regulations

Nevada Revised Statutes (NRS) 445A.305, 445A.520, and 445A.565 contain Nevada's requirements to maintain surface water quality and to protect high-quality waters. The Nevada Administrative Code (NAC 445A.11704 to 2234 inclusive) contains Designated Waters, the Beneficial Uses on those waters, and the Water Quality Criteria necessary to protect those uses.

NRS 445A.565 states, *"Any surface water of the State whose quality is higher than the applicable standards of water quality... must be maintained in their higher quality"*.

These statutes were enacted by the Nevada Legislature to fulfill Federal Clean Water Act (CWA) requirements of establishing water quality standards to protect and maintain designated uses of waterbodies and to prevent degradation of water quality. These statutes did not, however, establish the "tiered" levels of protection required by the CWA.

The CWA regulations (40 CFR 131.12) require that states have an antidegradation program, along with procedures for implementing that program. These regulations require that a state's antidegradation program adopt levels, or Tiers, of protection based on existing water quality.

Historically, despite the Nevada not having antidegradation regulations in place, NDEP has implemented elements of the antidegradation program by setting Requirements to Maintain Existing Higher Quality (RMHQs) on a parameter-by-parameter basis when sufficient data were available. RMHQs are adopted into water quality standards through the rulemaking process.

The Antidegradation Regulation establishes the following Tiers:

Tier 1 protects water quality for beneficial uses of the water on a parameter-by-parameter basis.

Tier 2 protects high-quality waters on a parameter-by-parameter basis where data show the quality is better than levels needed to protect beneficial uses. Absent data, a waterbody is assumed to merit a **Tier 2** level of protection.

Tier 2.5 and **Tier 3** protect water quality and the special characteristics of waterbodies with the designated beneficial use of "extraordinary ecological, aesthetic or recreational value".

Why is NDEP pursuing a change to the current approach to antidegradation?

The historical approach to antidegradation used five years of quarterly data to calculate a RMHQ for each parameter in a waterbody when ambient conditions were better than water quality standards. Many high-quality waters across the State have limited or no water quality data to develop RMHQs. If the historical process of developing RMHQs is used for antidegradation, the time required to collect sufficient water chemistry data (along with formally adopting these values through the rule-making process) could delay projects proposing a permitted discharge to waters for which limited or no data are available to establish RMHQs.

In the Antidegradation regulation, when a discharge is proposed to a waterbody for which an RMHQ does not exist, the baseline water quality will be based on five years of data. If data is not already available, the discharger would be responsible for implementing an approved sampling and analysis plan to collect the data needed to establish baseline water quality. After two years of quarterly data are collected (i.e., eight samples), an interim baseline values (IBV) could be used for permitting purposes until baseline water quality can be established.

This approach will provide the flexibility to allow permitting of a project to proceed based on the IBVs, while working toward collecting five years of quarterly data to establish baseline water quality.

What are the current changes to the regulations and implementation program?

Recent changes to Nevada's antidegradation regulations include adoption of a tier designation to classify the level of water quality protection for a receiving water. Antidegradation review of proposed discharge permits is outlined in the *Draft Antidegradation Implementation Procedures* (AIP). This implementation document describes how the Division's antidegradation program would be applied. Available water column chemistry data would be used to identify the tier of protection for the receiving water. Absent sufficient data, the waterbody would be assumed to merit **Tier 2** protection. Permitting parameters with total maximum daily loads (TMDLs) or existing RMHQs will not change under the current revisions.

If the receiving water for a proposed discharge was determined to merit **Tier 1** protection, the permit effluent limits would be set at the water quality standards needed to protect the designated beneficial uses of the waterbody, unless RMHQs existed for any parameters. Where established, RMHQs would be used as the permit limit. If some or all of the parameters in the waterbody are identified for **Tier 2** protection, permit limits would be set to prevent degradation of the higher water quality. Some waters may have Tier 1 protection for some parameters and Tier 2 protection for other parameters (**Tier 1/Tier 2** protections).

Waters with the designated beneficial use of "extraordinary ecological, aesthetic or recreational value" must have a Tier 2.5 or Tier 3 level of protection designated by the Commission. For a water with **Tier 2.5** protection, the permit limits would be set to prevent any degradation of the water quality or special characteristics of the water. No new discharges would be permitted into a water with **Tier 3** protection. The figure on the next page shows a summary of the tiers of protection.

Nevada's water quality standards are contained in NAC 445A.11704 to 445A.2234

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Antidegradation Tier Overview

