

**Excerpt from the Antidegradation rulemaking responsiveness summary:**

**Discussion:**

Economic efficiency is not the sole determinant of whether or not an alternative is reasonable. For an alternative to be considered reasonable, it must be practicable, economically efficient and affordable. The economic efficiency criterion provides a measure of each alternative's cost relative to the cost of the minimum level of pollution control (those controls required to protect beneficial uses and to achieve the highest statutory and regulatory requirement for the waters under evaluation). The existing rule currently includes the 115% test as a non-binding measure of economic efficiency. The proposed rule would change this to a binding criterion using the same 115% threshold. Antidegradation economic efficiency criteria are not unprecedented or unique to Iowa. Both U.S. EPA Region VIII Antidegradation Implementation Guidance and other states' antidegradation policies/procedures provide for economic efficiency criteria as follows:

Source/Entity	Economic Efficiency Criteria (Based on Present Worth Costs)	Binding/Non-binding
Iowa (existing)	115%	Non-binding
Iowa (proposed)	115%	Binding
U.S. EPA Region VIII Guidance (August 1993)	110%	Non-binding
Alabama	110%	Binding
Arizona	110%	Binding
Delaware	115%	Non-binding
Mississippi	110%	Binding
Missouri	120%	Non-binding
North Dakota	100% ("similar" costs)	Non-binding
Utah	120%	Non-binding
West Virginia	110%	Non-binding
Wisconsin	115% (or 110% of capital costs)	Binding

The use of an economic efficiency criterion greater than 100% of the cost to minimally meet applicable standards is a way to presume an environmental benefit of reduced pollutant loads and to place a value on that pollution reduction without simply requiring every discharger to spend the maximum they can afford every time a wastewater facility upgrade is undertaken. Such a strict "affordability-only" test was specifically rejected by U.S. EPA in its 2015 antidegradation rulemaking and would create unreasonably differing standards for different communities in the state. However, for Tier 2 ½ outstanding Iowa waters (OIWs), Iowa provides a heightened level of protection by using affordability as the only cost factor.

Rather than requiring the community or business to prove the value of the environmental benefit, the Iowa DNR is presuming that any reduction in the mass loading or concentration of a pollutant will produce an environmental benefit. This presumption gives the benefit of the doubt to environmental protection and is consistent with the overall antidegradation methodology adopted by Iowa DNR. During the development of the AIP, Iowa DNR worked with stakeholders to make policy determinations in regard to a wide range of implementation issues. Many other states have chosen to implement more narrowly applicable methodologies by adopting categorical or case-by-case de minimis exemptions premised on whether or not the degradation in question is considered to be "significant", rather than

using any mass or concentration increases in a discharge to a receiving stream as the trigger for review. These alternative approaches used by other states create concerns related to bioaccumulative or conservative pollutants. Those concerns are avoided by the Iowa DNR approach which captures all instances of potential degradation. Furthermore, Iowa DNR chose to use a pollutant-by-pollutant approach rather than the narrower waterbody-by-waterbody approach. These policy decisions increase the burden upon communities, industries, and the Iowa DNR and that is likely why other states have provided for a greater number of exceptions and limitations. The decision to impose greater protections must have some reasonable upper limit.

Once the decision has been made to use the more protective presumption that an environmental benefit always results from a reduction in loading, the state must set a reasonable upper limit to this presumption in order to avoid the implementation of a pure affordability test which is better suited and currently in place with the more stringent protection of OIWs. Many considerations impact the determination of this upper limit. It is, by its nature, a reasonableness determination based upon available guidance and comparison with other states' criteria currently in use. Communities have many responsibilities to which they must allocate resources, such as drinking water systems, police and fire services, road maintenance, parks, wastewater collection systems, and others. All of these demands compete with expenditures for water quality protection. The minimum requirements of the Clean Water Act and the state water quality standards must always be met. Antidegradation determines how far beyond those requirements it is reasonable for a community to go and how much more it will be required to spend.

After a review of the guidance originally provided by U.S. EPA and the antidegradation criteria used by other states, Iowa DNR and the stakeholders involved in the original development of the AIP decided upon a 115% upper limit. In this rulemaking, the Iowa DNR decided not to undertake a review of that original decision, which had extensive stakeholder input. Such a determination involves broad policy considerations related not only to water quality but also to economics and the proper allocation of community resources. The 115% criteria assumes a greater environmental benefit from pollution reduction than the 110% criteria provided in the original U.S. EPA Region VIII guidance and is within the range of criteria established by other states. A comparison with the range of adopted economic efficiency criteria provides a per se basis for the reasonableness of Iowa's criteria, particularly in light of the difficulties inherent in a specific cost-benefit analysis which have been detailed above.

The economic efficiency test is applicable to reviews for Tier 2 waterbodies. Tier 2½ and Tier 3 reviews have different review criteria. For Tier 2½ reviews applicable to OIWs degradation is only allowed if it is (a) temporary and limited, (b) less degrading alternatives are not available, effects on existing water quality will be minimal and the project will serve to enhance the value, quality or use of the OIW or (c) the degradation is the result of an expansion of an existing source and the applicant has selected the least degrading affordable alternative. For Tier 3 reviews applicable to Outstanding National Resource Waters (ONRWs) permanent new or expanded sources of pollutants are not allowed. Thus, both the current and proposed procedure take into account the receiving waterbody. The AIP takes into account the pollutants being discharged by requiring analyses on a pollutant-by-pollutant basis, without a de minimis exception.

Regarding the rule change providing greater incentive for applicants to skew cost comparisons to achieve a desired result, any attempt at quantification and monetization of environmental benefits without a methodology established in rule to do so would present the same or arguably more potential risk because such analyses have no defined basis for development or review. The Iowa DNR is unaware

of any established accepted methodology for quantifying and monetizing environmental benefits associated with incremental pollutant removals beyond those required to protect beneficial uses for all pollutants of concern from individual point sources. During the public notice process, or after submission, interested commenters and the Iowa DNR have the ability to question and require responses in regard to the cost information used to support an alternatives analysis.