

<u>ANTIDEGRADATION INFORMATION</u>	Antidegradation Summary Information by State and EPA Region				
	WASHINGTON	OREGON	MONTANA	NEVADA	WYOMING
Written Antideg Policy Adopted / Year of Adoption	173-201A-300 / August 1, 2003		Statute: <a href="#">MCA 75-5-303</a> Rule: <a href="#">ARM 17.30.701 through 717</a>		Chapter 1 – Wyoming Surface Water Quality Standards, Section 8 Antidegradation/2007
Written Implementation Methods Adopted/Year of Adoption	173-201A-310 through 330 / August 1, 2003 <i>Supplementary Guidance – Implementing the Tier II Antidegradation Rules</i> (July 18, 2005)	2001	No apparent written guidance; rules address implementation in great detail and often refer to statute.	Continuing Planning Process 2007	Wyoming Surface Water Quality Standards Implementation Policies for Antidegradation, Mixing Zones, Turbidity, Use Attainability Analysis/2001
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How are existing uses defined and the level of WQ needed to protect those uses?	Existing uses are “those uses actually attained in fresh or marine waters on or after November 28, 1975, whether or not they are designated uses. Introduced species that are not native to Washington, and put-and-take fisheries comprised of nonself-replicating introduced native species, do not need to receive full support as an existing use.” (WAC 173-201A-020)  WA protects existing uses by focusing on fully applying the water quality criteria and correcting problems using our existing regulatory and TMDL processes. Tier I applies to all waters and all sources of pollution.	Not defined	"Existing water quality" means the quality of the receiving water, including chemical, physical, and biological conditions immediately prior to commencement of the proposed activity or that which can be adequately documented to have existed on or after July 1, 1971, whichever is the highest quality.  “For all state waters, existing and anticipated uses and the water quality necessary to protect those uses must be maintained and protected.” (ARM 17.30.705(2)(a))	Nevada is still working on how to determine existing uses in designated waters and Class waters	Water uses in existence on or after November 28, 1975 and the level of water quality necessary to protect those uses shall be maintained and protected.
How is significance of degradation determined?	WA examines all water quality parameters that an action (new or expanded) has the potential for causing measurable degradation to existing water quality at the edge of the chronic mixing zone.		"Degradation" is defined in 75-5-103, MCA, and also means any increase of a discharge that exceeds the limits established under or determined from a permit or approval issued by the department prior to April 29, 1993." The term does not include those	If the discharger meets the RMHQ then no degradation is expected. If the discharger does not meet RMHQ degradation occurs and the discharger must go through the Tier 2 analysis. Basically there is no “significance” or “de minimus”	The significance determination shall be made with respect to the net effect of the new or increased water quality impacts of the proposed activity, taking into account any environmental benefits resulting from the activity and any water quality-enhancing

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	<p>Measurable degradation is based on an estimated change and is defined numerically in the rules for temperature, dissolved oxygen, bacteria, pH, and turbidity. For toxics or radioactive substances, measurable degradation is defined as any detectable increase.</p> <p>They may use the maximum allowable chronic mixing zone size <u>only to</u> determine whether there is measurable change (<i>note: They must still minimize the mixing zone size in order to meet the mixing zone rule requirements</i>). Point of compliance should represent the point of maximum oxygen depletion, which could be many miles downstream.</p> <p>The guidance document goes into detail about special considerations for particular pollutants and discusses detection limits, etc.</p> <p>The guidance document specifies that even if the discharge will cause measurable degradation for only one pollutant, it will have to undergo socio-economic/alternatives review. So, the discharge may not have to model discharge affect on DO if another pollutant has triggered the more extensive Tier II review.</p> <p>Finally, the guidance document indicates that evaluating whether there may be measurable change could be costly and the discharger may just want to assume that the socio-economic/alternatives review</p>		<p>changes in water quality determined to be nonsignificant pursuant to <a href="#">75-5-301(5)(c)</a>.”</p> <p><u>Summary of Criteria for Determining Nonsignificant Changes in Water Quality</u></p> <p>(1) Criteria used to determine whether activities result in non-significant changes consider the quantity, strength, duration and character of the pollutant. Except as provided changes in water quality resulting from activities that meet the criteria are non-significant, and are not required to undergo review. These criteria address changes in flow; carcinogenic pollutants; pollutants with bioconcentration factors greater than 300; toxics and nutrients where the change outside the mixing zone does not exceed 15% of lowest applicable standards; nitrate in ground water under certain criteria; total inorganic phosphorus under certain criteria; change outside mixing zone for other pollutants less than 10% of the applicable standard and the existing water quality level is less than 40% of the standard; changes where only narrative criteria apply as long as no measurable effect determined.</p> <p>(2) Notwithstanding compliance with the criteria of (1), the department may determine that the change in water quality resulting from an activity which meets the criteria above) is degradation based upon the following: (a) cumulative impacts or synergistic effects; (b) secondary byproducts of decomposition or chemical</p>	determination	mitigation measures impacting the segment or segments under review, if such measures are incorporated with the proposed activity. The activity shall be considered not to result in significant degradation, if: the activity may be permitted under a general permit established by the state for discharges regulated under section 402 of section 404; or the new or increased loading from the source under review is less than 10% of the existing total load to that segment for critical constituents, provided that the cumulative impact of increased loadings from all sources does not exceed 10% of the baseline total load established for the segment; or the new or increased loading from the source under review will consume, after mixing, less than 20% of the available increment between low flow pollutant concentrations and the relevant standards for critical constituents; or the activity will result in only temporary or short term changes in water quality.

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	<p>is needed.</p> <p><b>Who is responsible for making the determination?</b> The guidance says that a project proponent may choose to move straight to a Tier II “necessary and overriding public interest” analysis rather than evaluate if the activity will result in measurable degradation. So, although not directly mentioned in the rule, it appears as though the applicant does the modeling and then DOE will review.</p>		<p>transformation; (c) substantive information derived from public input; (d) changes in flow; (e) changes in the loading of parameters; (f) new information regarding the effects of a parameter; or (g) any other information deemed relevant by the department and that relates to the criteria in (1). (3) The department may determine that a change in water quality resulting from an activity or category of activities is non-significant based on Information submitted by an applicant that demonstrates conformance with the guidance found in 75-5-301(5)(c), MCA. In making a determination under this subsection, the department shall allow for public comment prior to a decision pursuant to the public notice procedures in ARM 17.30.1372.”</p> <p>Section 17.30.716 of the Administrative Rules of Montana lists categories of non-significant activities most of which deals with subsurface sewage treatment systems</p> <p>For permitted, approved, licensed, or otherwise authorized activities an “Application for Determination of Significance” must be completed</p>		
Does antideg review apply to nonpoint sources and 401 WQCs?	The rules specifically say that Tier II review will be conducted for new/expanded actions that have 401 certifications or other water pollution control programs authorized, implemented, or administered by the department. The implementation guidance states (page 3) that the	Conduct a full review. New certifications that will not result in lower water quality do not require a complete review, but the permit record must fully document that no lowering of water quality is expected to occur for any water quality parameter.	By statute most NPS are classified as non-significant activities: “(a) existing activities that are nonpoint sources of pollution as of April 29, 1993; (b) activities that are nonpoint sources of pollution initiated after April 29, 1993, when reasonable land, soil, and	In the rules yes, in actual implementation not sure.	- The Department adopted a policy on October 11, 1996 regarding the issuance of 401 certifications for activities on Class 1 waters (Tier 3 protection). This policy was specifically designed to ensure the protection of existing quality and uses of Class 1 waters and serves as the

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	“other water pollution control programs” currently only applies to the forest practices rules, but it would be expanded to any “similar formal program implemented or administered by Ecology in the future.”		water conservation practices are applied and existing and anticipated beneficial uses will be fully protected;”		antidegradation implementation procedure for activities subject to 401 certification on Class 1 waters. Nonpoint sources of pollution are not regulated by permits issued by the Department, but are controlled by the voluntary application of cost effective and reasonable best management practices. For Class 1 waters, best management practices will maintain existing quality and water uses.
Which waters are subject to Tier 2 protection and how is this determined?	Any waters of a higher quality than the applicable criteria. They use a pollutant-by-pollutant approach.	Based on the rules OAR 340-041-0006(41) and 340-041-0026(1)(a)(A)(iii), High Quality Waters are those which have water quality that meets or is better than all water quality standards. A High Quality Water is one that is not a Water Quality Limited Water. This interpretation is in contrast to some other States in which the waterbody is classified on a water quality parameter-by-parameter basis (thus, in these States, a waterbody can be simultaneously Water Quality Limited for one parameter but High Quality for other parameters). Therefore, in Oregon, waterbodies must have water quality that meets or is better than all water quality criteria in order to be classified as High Quality Waters (HQW).	Defined in law MCA <a href="#">75-5-103</a> (13): "High-quality waters" means all state waters, except: a. ground water classified as of January 1, 1995, within the "III" or "IV" classifications established by the board's classification rules; and i. surface waters that: are not capable of supporting any one of the designated uses for their classification; or ii. have zero flow or surface expression for more than 270 days during most years."	Waters with RMHQs are subject to Tier 2 protection. RMHQs are pollutant and water body specific	Applies to high quality waters under Class 2 of the state's classification system. These are waters which have an existing quality that is better than the established use-support criteria and where an assimilative capacity exists for parameters that would be affected by a proposed activity. Waters classified as 2AB, 2A, 2B, or 2C are known to support populations of fish and/or drinking water supplies.
Intergovernmental coordination and public participation provisions required?	Yes. The rules state that the public involvement processes associated with the activity will incorporate the Tier II review; however, the rule does not address specific expectations for public review.  The guidance indicates that providing an opportunity for public to review alternatives analysis is	Public participation and intergovernmental coordination will occur if the applicant review process yields a recommendation to approve the proposed activity. DEQ will then consider the various agencies' comments and public comments in reaching a final decision or recommendation to the Environmental Quality Commission regarding	Rules provide for public notice, a minimum 30-day public comment period, and making a statement of basis and conditions imposed available for review. During public comment, any interested person may request in writing a public hearing. Everyone commenting must be informed of the department's final decision. Final department	During permitting	Yes. The Antidegradation Policy under Section 8 of Water Quality Standards regulations states that Wyoming Department of Environmental Protection must conduct intergovernmental coordination and public participation before issuing a permit to a new or increased source of pollution that meets the five antidegradation policy

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	important. There are existing mechanisms for public involvement (e.g. SEPA or notification of an application for permit) Tier II requirements should be adequately discussed in these other public involvement processes. Where a public involvement process does not exist, DOE will have to create one. The guidance specifies minimum Tier II review elements that should be included in the public involvement process.	whether to authorize the proposed activity pursuant to the State's antidegradation requirements. If the applicant review process results in a denial of the permit, then the applicant has the right to appeal the decision to the Environmental Quality Commission (EQC). In this situation, the antidegradation review should be made available to the EQC. If the appeal is successful and the EQC directs DEQ to proceed with a permit, then the antidegradation review will be included in the staff report and made available for public comment and intergovernmental coordination during the usual period for comment on the application.	determinations on degradation may be appealed.  Intergovernmental coordination is not specifically addressed by Montana's nondegradation rules		conditions. The antidegradation implementation policy specifies public notice and comment period for issuance of NPDES point sources (non-stormwater) and stormwater industrial permits and acknowledges lack of public comment periods for stormwater construction general permits (beyond that held for permit issuance) and 401/404 permits.
<b>Burden of proof needed to demonstrate that lower WQ is necessary to accommodate important economic or social development</b>	The applicant must provide the necessary information to conduct the "necessary and overriding public interest determination" (DOE provides this information when developing general permits). DOE will make the determination based on the information provided.	Need a thorough analysis to demonstrate the costs (see appendix C) and must demonstrate that it is necessary and important	Burden of proof to demonstrate necessary and important lies with the applicant and an application to degrade state waters should include: 1. description of the proposed activity; 2. the proposed limits; 3.reasons for the proposed limits; 4.alternatives analysis; 5.analysis of existing water quality; 6.concentration, fate, biological effect and load for each parameter; 7.distribution of existing flows and expected frequency; 8.analysis of expected surface/ground water quality for all alternatives; 9.analysis of ground water flow and evaluation of ground and surface water interaction; 10.data on cumulative water quality effect of existing and authorized activities; and 11.monitoring and reporting plan.  An applicant must demonstrate that the proposed activity will result in	The burden of proof that degradation is necessary for economic or social development falls on the person/entity proposing to degrade the higher quality water. This proof should include, but not limited to, the following:	In determining the economic reasonableness of water quality control alternatives, the Administrator may use some of the following factors to weigh the reasonableness of the various alternatives. Whether the costs of the alternative significantly exceed the costs of the proposal; For publicly owned treatment works (POTWs), whether user charges resulting from the alternative would significantly exceed user charges for similarly situated POTWs or public water supply projects; For any discharger into waters of the state, whether the treatment alternative represents costs that significantly exceed costs for other similar dischargers to similar stream classes, or standard industry practices. (4) Any other environmental benefits, unrelated to water quality which may result from each of the alternatives

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			<p>important economic or social development that exceeds the costs to society of allowing the proposed change in water quality. Factors to be addressed in the application may include, but are not limited to, the positive and negative effects of the following: 1. Allowing the proposed change in water quality; 2. Employment considering the existing level of employment, unemployment, and wage levels in the area (i.e., increasing, maintaining, or avoiding a reduction in employment); 3. The fiscal status of the local, county, or state government and local public schools; 4. The local or state economies (i.e., increased or reduced diversity, multiplier effects); 5. Social or historical values; 6. Public health; 7. Housing (i.e., availability and affordability); 8. Existing public service systems and local educational systems; or, 9. Correction of an environmental or public health problem."</p>		examined.

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Specific requirements for determining "important economic and social development"	<p>The applicant must provide a statement of the benefits and costs of the social, economic, and environmental effects associated with the lowering of water quality. The rule provides examples such as: creating or expanding employment, increasing median family income, providing to contributing to necessary and social services, prevention or remediation of environmental or public health threats, preservation of assimilative capacity for future industry and development, etc.</p> <p>The guidance says that narrative descriptions, where numeric values are not readily available or reasonable to assign are acceptable. The guidance also provides a little more descriptions about the "types of information" examples that are in the rule.</p>	<p>A number of indicators must be considered, all of which would be projected to occur if a lowering of water quality was not allowed. These include indicators such as increases in unemployment, losses to the local economy, changes in household income, decreases in tax revenues, indirect effects on other businesses, and increases in sewer fees</p>	<p>"(4)(a) To determine that the proposed activity will result in important economic or social development that exceeds the benefit to society of maintaining existing high-quality waters and exceeds the costs to society of allowing degradation of high-quality waters, the department must find that the proposed activity will provide important economic or social development which outweighs any cost to society of allowing the proposed change in water quality. In making its determination, the department may consider factors that include, but are not limited to, the following:            (i) effects on the state or local community resulting from increased employment opportunities considering the existing level of employment, unemployment, and wage levels in the area; (ii) effects on the state or local economies; (iii) effects on the fiscal status of the local, county or state governments and local public schools;            (iv) effects on the local or state economies (i.e., increased or reduced diversity, multiplier effects); (v) effects on social or historical values; (vi) effects on public health; (vii) effects on housing (i.e., availability and affordability); (viii) effects on existing public service systems and local educational systems; or, (ix) correction of an environmental or public health problem."</p>	<p>Provide evidence that economic and/or social development will occur. Demonstrate the extent to which the sought-for decreased level of water quality would create an incremental increase in the rate of economic or social development and why the change in water quality is necessary to achieve such development. Include: a. Expected plant expansion; b. Employment growth; c. Direct and indirect income effects; d. Increases in the community tax base. Include an assessment of the overall environmental benefits.</p>	<p>If the applicant submits evidence that the activity is important development, it shall be presumed important unless information to the contrary is submitted in the public review process. The determination shall take into account information received during the public comment period and shall give substantial weight to any applicable determinations by local governments or land use planning authorities.</p>
How State assures that existing uses are fully protected while allowing lower WQ	<p>This is done by ensuring all water quality criteria are met – exactly like Tier 1.</p>		<p>"To determine whether or not existing and anticipated uses will be fully protected, the department shall require the following information:</p>		<p>For Class 1 waters, existing uses will be protected by implementing the requirements described in Section III of the implementation policy. For High</p>

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			<p>a showing that the change will not result in violations of Montana water quality standards outside of a mixing zone; and</p> <p>an analysis of the impacts of the proposed water quality changes on the existing and anticipated uses of the impacted state water.”</p>		<p>Quality and Use Protected Waters, this implementation policy assumes that attainment of the criteria assigned to protect the current waterbody classification will serve to maintain and protect all existing uses. Where the antidegradation review results in the identification of an existing use that has protection requirements that are clearly defined, but are not addressed in the current classification and criteria, the Division will ensure that such existing uses are fully protected, based on implementation of appropriate numeric or narrative water quality criteria or criteria guidance. For example, where a proposed activity will result in the discharge of a substance for which sufficient data to derive appropriate criteria are available (e.g. §304(a) criteria), but numeric criteria have not been adopted in the Chapter 1 regulations, the Division will develop effluent limitations that will protect the existing use. In cases where there is a proposed discharge where federally-listed threatened or endangered species are present (i.e. aquatic species), the Division will work with the U.S. Fish and Wildlife Service and EPA to gather available information and evaluate whether special existing use protection requirements are necessary to protect the listed species. Where there is a question regarding the appropriate classification of a segment, the applicant may be required to provide information regarding existing uses.</p>
How State evaluates BMPs	The only place in the rule where		“If degradation of high quality waters		No mention of BMP evaluation. The

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for NPS control in antideg review	NPS control is mentioned is under the ORW section for Tier III(B). It says that NPS must use all applicable structural and nonstructural BMPs with the goal of reducing the degradation of water quality to nonmeasurable levels where total elimination is not feasible.		is allowed, the department will assure that within the United States Geological Survey hydrologic unit upstream of the proposed activity, there shall be achieved the highest statutory and regulatory requirements for all point and nonpoint sources. This assurance will be achieved through ongoing administration by the department of mandatory programs for control of point and nonpoint discharges.”		Antidegradation Implementation Policy states that NPS BMPs will maintain existing quality and water uses.
Criteria used to identify ONRWs	<p>Yes, to be eligible, a water must show one or more of 5 characteristics: 1) relatively pristine condition and occurs in federal or state parks/preserves/etc.; 2) unique aquatic habitat types; 3) both high water quality and regionally unique recreational value; 4) exceptional statewide ecological significance; or 5) cold water thermal refuges critical to the long-term protection of aquatic species.</p> <p>The public can make a request for designation as an ORW. DOE can designate Ors as a Tier III(A) or a Tier III(B). The Tier III(B) is like a Tier 2.5.</p> <p>DOE will adopt ORW waters into rule.</p>	By definition at 340-041-0006(42), Outstanding Resource Waters must be High Quality Waters, i.e. a waterbody must meet all water quality criteria. OAR 340- 041-0026(1 )(a)(D) further clarifies the definition of ORW to mean that the waterbody must also constitute an outstanding state or national resource based on its extraordinary water quality, ecological values, or requirement for special water quality protection in order to maintain critical habitat areas. The Environmental Quality Commission designates a waterbody as an Outstanding Resource Water after a process of nomination, review, and public comment.	<p>Defined in statute: "Outstanding resource waters" means:</p> <p>a. state surface waters located wholly within the boundaries of areas designated as national parks or national wilderness areas as of October 1, 1995; or</p> <p>b. other surface waters or ground waters classified by the board under the provisions of 75-5-316 and approved by the legislature.”</p> <p>MCA 75-5-316 provides for a petition process to the MT DEQ Board. “The board shall consider the following criteria in determining whether certain state waters are outstanding resource waters. However, the board may determine that compliance with one or more of these criteria is insufficient to warrant classification of the water as an outstanding resource water. The board shall consider:</p> <p>whether the waters have been designated as wild and scenic;</p> <p>the presence of endangered or threatened species in the waters;</p> <p>the presence of an outstanding recreational fishery in the waters;</p> <p>whether the waters provide the only</p>		Class 1, Outstanding Waters are based on value determinations rather than use support. Class 1 waters are those surface waters in which no further water quality degradation by point source discharges other than from dams will be allowed. In designating Class 1 waters, water quality, aesthetic, scenic, recreational, ecological, agricultural, botanical, zoological, municipal, industrial, historical, geological, cultural, archaeological, fish and wildlife, the presence of significant quantities of developable water, and other values of present and future benefit to the people are considered. (taken from <a href="http://www.blm.gov/nstc/WaterLaws/wyoming2.html">http://www.blm.gov/nstc/WaterLaws/wyoming2.html</a> )

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			source of suitable water for a municipality or industry; whether the waters provide the only source of suitable water for domestic water supply; and other factors that indicate outstanding environmental or economic values not specifically mentioned in this subsection.”		
Application of antidegradation policies to other activities such as channel and flow alterations	These are not specifically mentioned in rule nor in the guidance. Antidegradation is mentioned in the 401 certification for hydropower projects guidance.		By statute “diversions or withdrawals of water established and recognized under Title 85, chapter 2,” are deemed non-significant activities. MCA 75-5-317(2)(s). Channel alterations are not specifically mentioned		The Antidegradation Implementation Policy doesn’t specifically address other activities, although it does single out stormwater industrial and construction discharges.
Determination of cumulative WQ impacts	The rules and guidance don’t address cumulative WQ impacts (from multiple sources).  However, the guidance addresses “cumulative” from the perspective of determining whether the action can be considered “expanded.” If a permit limit isn’t based on design capacity, the permit must establish the “baseline” mass loading. This baseline is tracked over subsequent permit cycles, and once the baseline is exceeded by 10%, the facility will be considered expanded and is eligible for Tier II antidegradation analysis.		The rules allows the department to judge an activity that otherwise meets the criteria for being non-degrading to be causing degradation based on “cumulative impacts or synergistic effects”		Not mentioned specifically.

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Requirements for alternatives analyses	<p>The rule requires the applicant to submit information that identifies and selects the best combination of site, structural and managerial approaches that can be feasibly implemented. The rule specifies examples of alternatives, such as recycle/reuse of waste by-products, alternative or enhanced treatment technology, improved O&amp;M of existing treatment systems, water quality offsets. The rule specifies that DOE may require the applicant to examine specific alternatives or that additional information be provided. The guidance document goes into a little bit more detail about expectations of the alternatives analysis and emphasizes that this is a focal point for DOE review.</p> <p><i>Offsets can be used to reduce the impact of the discharge such that there would not be a measurable degradation.</i></p>	<ul style="list-style-type: none"> <li>In evaluating the alternatives, the discharger/applicant/ source must consider all known, available, and reasonable methods of prevention, control, and treatment to prevent the lowering of water quality. At a minimum, the following alternatives must be considered: <ul style="list-style-type: none"> <li>Improved operation and maintenance of existing treatment system</li> <li>Recycling or reuse with no discharge</li> <li>Discharge to on-site system</li> <li>Seasonal or controlled discharges to avoid critical water quality periods</li> <li>Discharge to sanitary sewer</li> <li>Land application</li> </ul> </li> </ul>	<p>“To determine that degradation is necessary because there are no economically, environmentally, and technologically feasible alternatives to the proposed activity that would result in no degradation, the department shall consider the following: The department will determine the economic feasibility of the alternative water quality protection practices by evaluating the cost effects of the proposed alternatives on the economic viability of the project and on the applicant by using standard and accepted financial analyses. In order to determine the environmental feasibility of an alternative, the department will consider whether such alternative practices are available and will compare the overall environmental impacts of the various alternatives and the commitment of resources necessary to achieve the alternatives. In order to determine technological feasibility of an alternative, the department will consider whether such alternative practices are available and consistent with accepted engineering principles.”</p>		<p>The assessment shall at a minimum, address practical water quality control technologies, the feasibility and availability of which has been demonstrated under field conditions similar to those of the activity under review.</p>

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Written Implementation Methods Adopted/Year of Adoption	20.6.4.8.B is implementation rules. Guidance: <i>State of New Mexico Continuing Planning Process</i> (Revised Dec. 14, 2004).		1999	Pennsylvania Clean Streams Law (35 P.S. §691.1 et seq.) and regulations at Title 25 Pa. Code Title 25, including Chapters 91, 92, 93, 95, 96, 102, and 105; Nov. 2003	
Contact / web site	Pam Homer 505-827-2822 <a href="http://www.nmenv.state.nm.us/swqb/Standards/index.html">http://www.nmenv.state.nm.us/swqb/Standards/index.html</a>	<a href="http://www.epa.gov/waterscience/standards/wqslibrary/az/az_9_anti.pdf">http://www.epa.gov/waterscience/standards/wqslibrary/az/az_9_anti.pdf</a>	<a href="http://www.dnrec.state.de.us/water/antideg.pdf">http://www.dnrec.state.de.us/water/antideg.pdf</a>	Kellie DuBay <a href="http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-47704/391-0300-002.pdf">http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-47704/391-0300-002.pdf</a>	<a href="http://www.epa.gov/region8/water/wqs/wqsdocs.html">http://www.epa.gov/region8/water/wqs/wqsdocs.html</a>
How are existing uses defined and the level of WQ needed to protect those uses?	Existing uses are "those uses actually attained in a surface water on or after November 28, 1975, whether or not it is a designated use" (20.6.4.7.N)	Existing use means a use that is actually attained in the waterbody on or after November 28, 1975, whether or not it is included in the water quality standards	Existing use means a use that is actually attained in the waterbody on or after November 28, 1975, whether or not it is included in the water quality standards	Those uses actually attained in the waterbody on or after November 28, 1975, whether or not those uses have been included in the water quality standards	Existing use means a use that is actually attained in the waterbody on or after November 28, 1975, whether or not it is included in the water quality standards
How is significance of degradation determined?	Tier 2 reviews will not be conducted for activities with de minimis impacts. They have various categories of de minimis, but essentially all must be characterized by using less than 10% of the available assimilative capacity when taking into account all other discharges. The exceptions are: general permits (e.g. CAFO, Oil and gas extraction, stormwater, aquifer	The likelihood that a proposed activity will pose significant degradation will be judged by the Department for all water quality parameters that would be affected by the proposed activity. Proposed activities will be considered significant and subject to tier 2 requirements where significant degradation is projected for one or more water quality parameter. Significant	Same as Arizona		The likelihood that a proposed activity will pose significant degradation will be judged by the Division for all water quality parameters that would be affected by the proposed activity. Such significance judgments will be made on a parameter-by-parameter basis. The Division will identify and eliminate from further review only those proposed activities that present insignificant threats to water quality.

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	<p>remediation, or 404 permits). These types of activities may be automatically considered de minimis – the CPP has outlined a rationale for these types of activities, but also recognizes that the Department retains its discretion in requiring a full blown Tier 2 analysis if necessary.</p> <p>The concept of de minimis appears to be also applicable to Tier 3 waters because the CPP states, “Any application for a new or increased discharge or the renewal of a permit for an existing discharge in a Tier 3 water will be considered on a case-by-case basis applying the Tier 2 review process as modified by the Department to reflect unique factors associated with the Tier 3 water.</p>	<p>degradation may be demonstrated with respect to any one (or a combination) of the following factors: (a) percent change in ambient concentrations predicted at the appropriate critical condition(s), (b) the difference, if any, between existing ambient quality and ambient quality that would exist if all point sources were discharging at permitted loading rates, (c) percent change in loadings (i.e., the new or expanded loadings compared to total existing loadings to the segment or, for existing facilities only, the proposed permitted loadings compared to the existing permitted loadings), (d) percent reduction in available assimilative capacity, (e) nature, persistence, and potential effects of the parameter, (f) potential for cumulative effects, (g) predicted impacts to aquatic biota, (h) degree of confidence in any modeling techniques utilized, and (i) the difference, if any, between permitted and existing effluent quality.</p>			<p>Proposed activities will be considered significant and subject to tier 2 requirements where significant degradation is projected for one <i>or more</i> water quality parameters.</p>
<p>Does antideg review apply to nonpoint sources and 401 WQCs?</p>	<p>Does not apply to nonpoint sources; however, it does apply to NPDES and Dredge and Fill Permits. There is no mention of FERC licenses or other federal permits.</p>			<p>Pennsylvania requires the implementation of erosion and sediment control, nutrient management and stormwater management BMPs under the federal Clean Water Act, the Pennsylvania Clean Streams Law, the Nutrient Management Act, and the Stormwater Management Act</p>	

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Which waters are subject to Tier 2 protection and how is this determined?	Any waters of a higher quality than the applicable criteria. They use a pollutant-by-pollutant approach.	Decisions regarding whether a waterbody is "high quality" and subject to tier 2 protection requirements will be based on a best professional judgment of the overall quality and value of the segment. In general, water with existing quality that is better than necessary to support fishable/swimmable uses will be considered "high quality" and subject to tier 2 requirements. Note that attainment of both aquatic life (fishable) and recreational (swimmable) uses is not required in order to qualify as a "high quality" segment.	Same as Region 8 and Arizona		Segments may be afforded tier 2 protection by the state in one of two ways. The first way is for the Board to assign tier 2 protection through a rulemaking action. Where this occurs, a high quality use designation will be added to the state standards for the segment. The sole implication of a high quality designation in the state water quality control program is that it <i>mandates</i> application of the tier 2 review requirements described below. The second way to afford tier 2 protection is for the Division to make a determination that this level of protection is warranted during the antidegradation review of a proposed activity. Such decisions will be based on all relevant information including any ambient water quality (i.e., physical, chemical, biological) data submitted by the applicant. Decisions regarding whether a waterbody is high quality and subject to tier 2 protection requirements will be based on a best professional judgment of the overall quality and value of the segment. In general, waters with existing quality that is better than necessary to support fishable/swimmable uses will be considered high quality and subject to tier 2 requirements.
Intergovernmental coordination and public participation provisions required?	Yes. The rules state that the department "ensures that the provisions for public participation required by the New Mexico Water Quality Act and the federal Clean Water Act are followed.	Intergovernmental coordination minimum process states that upon request, the Department will provide copies of the completed antidegradation review worksheet and/pr public notice to state and federal government agencies	That Division shall conduct all antidegradation reviews consistent with the intergovernmental coordination procedures included in the State's Continuing Planning Process. Intergovernmental coordination minimum process states	The Department will hold a public hearing on a proposed new, additional, or increased discharge to Exceptional Value Waters when requested by an interested person on or before the termination of the public comment period on the discharge.	The Division shall conduct all antidegradation reviews consistent with the intergovernmental coordination procedures included in the state's continuing planning process. Because the socio-economic importance of a proposed activity is a

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	<p>The CPP has details about the public comment period including: type of information to be shared with the public; length of public comment period; how to public notice the opportunity to comment; and process for requesting a public hearing.</p>	<p>along with a written request to provide comments by the public comment deadline. Because the socio-economic importance of a proposed activity is a question best addressed by local interests, the Department will give particular weight to the comments submitted by local governments, land use planning authorities, and other local interests in determining whether the balancing of benefits and costs that was the basis for the Division's preliminary decision was appropriate. Based upon comments and information received during the public comment period, the Division may reverse its preliminary determination regarding the social or economic importance of a proposed activity.</p>	<p>that upon request, the Division will provide copies of the completed antidegradation review work sheet and/pr public notice to state and federal government agencies along with a written request to provide comments by the public comment deadline. The antidegradation review findings will be subjected to Delaware's public participation requirements. A separate public notice for purposes of antidegradation need not be issued.</p>		<p>question best addressed by local interests, the Division will give particular weight to the comments submitted by local governments, land use planning authorities, and other local interests in determining whether the balancing of benefits and costs that was the basis for the Division's preliminary decision was appropriate. Based upon comments and information received during the public comment period, the Division may reverse its preliminary determination regarding the social or economic importance of a proposed activity.</p>
<p><b>Burden of proof needed to demonstrate that lower WQ is necessary to accommodate important economic or social development</b></p>	<p>The applicant must provide the necessary information to the Department in order for the Department to conduct the review. The CPP outlines the type of information that the Department may request.</p>	<p>The applicant is required to demonstrate the social and economic importance of the proposed activity.</p>	<p>Same as Arizona</p>	<p>A person proposing a new, additional or increased discharge to High Quality or Exceptional Value Waters, who has demonstrated that no environmentally sound and cost effective non discharge alternative exists under clause (A), shall demonstrate that the discharge will maintain and protect the existing quality of receiving surface waters, except as provided in subparagraph (iii)."The Department may allow a reduction of water quality in a High Quality Water if it finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the Commonwealth's continuing planning process, that</p>	

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				allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located	
Specific requirements for determining "important economic and social development"	The applicant must provide an analysis of the important social or economic activities in the area that might be beneficially or adversely impacted by the new or increased discharge. The applicant must analyze the following factors: employment; tax base; production of goods and services; housing; effect on existing or expected environmental or public health problems.	The applicant is required to demonstrate the social and economic importance of the proposed activity. The factors to be addressed in such a demonstration may include, but are not limited to, the following: (a) employment (i.e., increasing, maintaining, or avoiding a reduction in employment), (b) increased production, (c) improved community tax base, (d) housing, and (e) correction of an environmental or public health problem.	Same as Arizona	Public need/social services, public health/safety, quality of life, employment, tax revenues, tourism, etc.	The applicant is required to demonstrate the social and economic importance of the proposed activity. The factors to be addressed in such a demonstration may include, but are not limited to, the following: (a) employment (i.e., increasing, maintaining, or avoiding a reduction in employment), (b) increased production, (c) improved community tax base, (d) housing, and (e) correction of an environmental or public health problem.
How State assures that existing uses are fully protected while allowing lower WQ	This is done by ensuring all water quality criteria are met.	Prior to authorizing any proposed activity that would significantly degrade a tier 2 water, the Department shall ensure that existing uses will be fully protected consistent with the tier 1 implementation procedures provided.	Same as Arizona		Prior to authorizing any proposed activity that would significantly degrade a tier 2 water, the Division shall ensure that existing uses will be fully protected consistent with the tier 1 implementation procedures provided.
How State evaluates BMPs for NPS control in antideg review	They do not describe this. The rule states that the Department: "encourages, in conjunction with other state agencies, implementation of the best management practices set forth in the New Mexico statewide water quality management plan and the nonpoint source management				

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	program, such implementation shall not be mandatory except as provided by federal or state law; evaluates the effectiveness of BMPs selected to prevent, reduce or abate sources of water pollutants.”				
Criteria used to identify ONRWs	20.6.4.9 – ONRW. The designation must be beneficial to the state of NM and, “(1) the water is a significant attribute of a state gold medal trout fishery, national or state park, national or state monument, national or state wildlife refuge or designated wilderness area, or is part of a designated wild river under the federal Wild and Scenic Rivers Act; or (2) the water has exceptional recreational or ecological significance; or (3) the existing water quality is equal to or better than the numeric criteria for protection of aquatic life uses, recreational uses and human health uses, and the water has not been significantly modified by human activities in a manner that substantially detracts from its value as a natural resource.	Unique Waters The factors to be considered in determining whether to assign a Unique Waters designation may include the following: 1.) The navigable water is of exceptional recreational or ecological significance because of its unique attributes, including but not limited to, attributes related to the geology, flora, fauna, water quality, aesthetic values or the wilderness characteristics of the navigable water. 2.) Threatened or endangered species are known to be associated with the navigable water and the existing water quality is essential to the maintenance and propagation or the navigable water provides critical habitat. Outstanding water quality is not a prerequisite for Unique Waters designation. The public may nominate any state water for Unique Waters protection by written request. The written request should contain 1. A map and a description of the	The factors to be considered in determining whether to assign an ONRW designation may include the following: (a) location (e.g., on federal lands such as national parks, national wilderness areas, or national wildlife refuges), (b) previous special designations (e.g., wild and scenic river), (c) existing water quality (e.g., pristine or naturally-occurring), (d) ecological value <sup>1</sup> (e.g., presence of threatened or endangered species during one or more life stages), (e) recreational or aesthetic value (e.g., presence of an outstanding recreational fishery), and (f) other factors that indicate outstanding ecological or recreational resource value (e.g., rare or valuable wildlife habitat). Outstanding water quality is preferred but not a prerequisite for ONRW designation. The public may nominate any state water for ONRW protection at any time by sending a written request. The written request should explain why an ONRW designation is warranted based on one or more of the factors identified above.	Does not give criteria to identify ONRWs	The factors to be considered in determining whether to assign an ONRW designation may include the following: (a) location (e.g., on federal lands such as national parks, national wilderness areas, or national wildlife refuges), (b) previous special designations (e.g., wild and scenic river), (c) existing water quality (e.g., pristine or naturally- occurring), (d) ecological value <sup>1</sup> (e.g., presence of threatened or endangered species during one or more life stages), (e) recreational or aesthetic value (e.g., presence of an outstanding recreational fishery), and (f) other factors that indicate outstanding ecological or recreational resource value (e.g., rare or valuable wildlife habitat). Outstanding water quality is not a prerequisite for ONRW designation. The public may nominate any state water for ONRW protection at any time by sending a written request. The written request should explain why an ONRW designation is warranted based on one or more of the factors identified above.

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		navigable water; 2. A written statement in support of the nomination, including specific reference to the applicable criteria for unique waters classification, 3. Supporting evidence demonstrating that one or more of the applicable unique waters criteria has been met; and 4.) Relevant water quality data.			
Application of antidegradation policies to other activities such as channel and flow alterations	These are not specifically mentioned in rule or in the CPP.				
Determination of cumulative WQ impacts	There is no guidance on how this is done in the CPP.				
Requirements for alternatives analyses	There is no detail in rule. The CPP states, "An analysis of alternative disposal options (including no discharge to a surface water) or discharge reduction options, including any option that would minimize degradation."	The applicant is required to prepare an evaluation of alternatives. The evaluation must provide, at a minimum, substantive information pertaining to the costs and environmental impacts associated with the following alternatives: pollution prevention measures, reduction in scale of project, water recycle or reuse, process changes, innovative treatment technology, advanced	Same as Arizona		The evaluation prepared by the regulated entity must provide substantive information pertaining to the cost and environmental impacts associated with the following alternatives: pollution prevention measures, reduction in scale of project, water recycle or reuse, process changes, innovative treatment technology, advanced treatment technology, seasonal or controlled discharge options to avoid critical

ANTIDegradation INFORMATION	Antidegradation Summary Information by State and EPA Region				
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		treatment technology, seasonal or controlled discharge options to avoid critical water quality periods, improved operation and maintenance of existing treatment systems, and alternative discharge locations.			water quality periods, improved operation and maintenance of existing treatment systems, and alternative discharge locations.

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Written Antideg Policy Adopted / Year of Adoption	Final Rule published 1/13/10,	Title 47-02, Requirements Governing Water Quality Standards/2008
Written Implementation Methods Adopted/Year of Adoption	Implementation Procedure 2/17/10	Title 60-05, Antidegradation Implementation Procedures/2008
Contact / web site	<a href="http://www.iowadnr.gov/water/standards/antidegradation.html">http://www.iowadnr.gov/water/standards/antidegradation.html</a>	<a href="http://www.wvsos.com/csr/verify.asp?TitleSeries=47-02">http://www.wvsos.com/csr/verify.asp?TitleSeries=47-02</a>
How are existing uses defined and the level of WQ needed to protect those uses?	<p>Existing Use: Beneficial uses actually attained in a surface water on or after November 28, 1975, whether or not the uses are designated in the water quality standards.</p> <p>Tier 1: Applies to all surface waters as a minimum level of protection and requires that the level of water quality necessary for existing uses be maintained and protected. Tier 1 requires that the Water Quality Standards be achieved. Tier 1 review shall prohibit degradation that may cause or contribute to the impairment of a beneficial use or violation of water quality criteria. Tier 1 protection applies to all surface waters, regardless of the existing water quality.</p> <p><b>Assigning Tier 1 Review</b> Prior to allowing any new or expanded discharges of a pollutant, a Tier 1 review must be conducted and demonstrate that the discharge would not result in the loss or impairment of a beneficial use or violate the water quality criterion for that pollutant. Those pollutants that are documented as already being at or violating Water Quality Standards will receive only a Tier 1 review.</p>	"Existing uses" are those uses actually attained in a water on or after November 28, 1975, whether or not they are included as designated uses in the water quality standards. Tier 1 protection
How is significance of degradation determined?	Does not use a significance threshold or <i>de minimus</i> qualification. Instead, states that applicants proceed directly to Tier 2 analysis assuming not demonstrating that the proposed activity results in degradation.	"Baseline water quality" means that ambient concentration established at the time of an initial antidegradation review for a stream or stream segment or any other water(s) of the state. Where baseline water quality has not been established for the water segment the regulated entity proposes to impact or has not been established for a parameter of concern that is reasonably expected to be discharged into the water segment

<u>ANTIDEGRADATION INFORMATION</u>	Antidegradation Summary Information by State and EPA Region (continued)	
	IOWA	WEST VIRGINIA
		<p>as a result of the proposed regulated activity, the Secretary must determine the baseline water quality for the receiving water body. The Secretary may consider data for establishing the baseline water quality from a federal or state agency, the regulated entity, the public, or any other source, as long as the data are recent and reliable. If adequate data are not available, the agency may, in conjunction with the regulated entity or on its own initiative, establish a plan for obtaining the necessary data. The regulated entity may be required to provide baseline water quality for those parameters of concern that are reasonably expected to be discharged as a result of the regulated activity into the affected water segment to help the permitting agency determine the baseline water quality, the existing uses, and the applicable tier. The regulated entity may contact the Secretary prior to initiating the baseline water quality evaluation to seek concurrence with its determination of the parameters of concern for is proposed activity and its proposed sampling protocol.</p>
Does antideg review apply to nonpoint sources and 401 WQCs?	<p>Antidegradation review applies only to activities that require a permit or a water quality certification pursuant to federal law (CWA § 402 NPDES permits, CWA § 404 dredge and fill permits, and any activity requiring a CWA § 401 certification). Nonpoint discharges do not currently require a permit pursuant to these federal provision or Iowa law. States may adopt regulatory programs to address nonpoint sources of pollution. Unless Iowa imposes a regulatory framework upon nonpoint sources of water pollution there is no mechanism available for the imposition of antidegradation review in regard to these discharges and such review can not occur.</p>	<p>New or expanded discharge not explicitly defined in the Antidegradation policy or implementation policy. Section 3.7 of the Implementation Policy states, "On or after July 2,200 1, the effective date of these implementation procedures, new and reissued WV/NPDES general permits will be evaluated to consider the potential for significant degradation as a result of the permitted activity."</p>

<u>ANTIDegradation INFORMATION</u>	Antidegradation Summary Information by State and EPA Region (continued)	
	IOWA	WEST VIRGINIA
Which waters are subject to Tier 2 protection and how is this determined?	Any water for which a pollutant is present at levels that are better than water quality criteria is considered to require a Tier 2 analysis for that water and that pollutant. Iowa uses a pollutant by pollutant approach. Additionally, Iowa assumes that a Tier 2 review will be warranted in all cases where a pollutant is better than	Section 5.6.c of the Antidegradation Implementation Policy provides process for determining significant degradation. For Tier 2 degradation is significant if the activity results in a reduction in the water segment's available assimilative capacity (the difference between the baseline water quality and the water quality criteria) of ten percent or more at the appropriate critical flow condition(s) for parameters of concern. Degradation will also be deemed significant if the proposed activity, together with all other activities allowed after the baseline water quality is established, results in a reduction in the water segment's available assimilative capacity of 20% or more at the appropriate critical flow conditions for the parameters of concern. This section excepts discharges affecting dissolved oxygen, pH or fecal coliform will be deemed insignificant provided that specific numeric benchmarks are met. The policy also states that significant degradation will be determined on a parameter-by-parameter basis for each parameter of concern that might be affected by the regulated activity.
Intergovernmental coordination and public participation provisions required?	Yes, applicant provides public notice and opportunity for public comment on the alternatives analysis and the social/economic importance review. Public notice must be circulated in the area of the proposed activity and a copy sent to potentially interested persons and government agencies (list provided)	401 WQCs are not required to undergo a Tier 2 antidegradation review, provided, however, that where an individual 401 certification is required, the Secretary may require an appropriated antidegradation review. Where section 401 allows for filling of a water, this exemption only applies to the site of the fill, and does not apply to activities downstream of the fill.
Burden of proof needed to demonstrate that lower WQ is necessary to accommodate important economic or social development	Typically lies with the applicant in conjunction with Iowa DNR. The applicant develops the alternatives analysis and must demonstrate that the preferred alternative will allow important economic and social development.	The existing high quality waters. - 4.1b.1. High quality waters are those waters whose quality is equal to or better than the minimum levels necessary to achieve the national water quality goal uses. - 4.1 .b.2. High quality waters may include but are not limited to the following: - 4.1 .b.2.A. Streams designated by the West Virginia Legislature

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		<p>under the West Virginia Natural Stream Preservation Act, pursuant to W. Va. Code 922-1 3-5; and - 4.1 .b.2.B. Streams listed in West Virginia High Quality Streams, Fifth Edition, prepared by the Wildlife Resources Division, Department of Natural Resources (1986). - 4.1.b.2.C. Streams or stream segments which receive annual stockings of trout but which do not support year-round trout populations.</p>

<u>ANTIDegradation INFORMATION</u>	Antidegradation Summary Information by State and EPA Region (continued)	
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Specific requirements for determining "important economic and social development"	<p>Examples of social and economic factors include:</p> <ul style="list-style-type: none"> <li>☐Rate of employment</li> <li>☐Personal or household income</li> <li>☐Poverty level</li> <li>☐Population trends</li> <li>☐Increasing production</li> <li>☐Housing starts, median values, etc.</li> <li>☐Community tax base</li> <li>☐Available public services (e.g., fire department, school, infrastructure)</li> <li>☐Current or potential public health, safety or environmental problems.</li> </ul> <p>Following the identification of appropriate social and economic measures, the applicant must describe the expected change in these factors that is associated with the project. The purpose of this step is to demonstrate whether or not important social and economic development will result from the project. The applicant should first describe the existing condition of the affected community. This base condition should then be compared to the predicted change (benefit or loss) in social and economic condition after the activity is allowed. The area's use or dependence upon the water resource affected by the proposed discharge must be included in the analysis. In doing so, the applicant shall evaluate any associated environmental related benefits or costs, such as:</p> <ul style="list-style-type: none"> <li>☐Promoting/impacting fishing, recreation, tourism or other economic benefits for the community</li> <li>☐Reserving assimilative capacity for future industry and development</li> </ul>	<p>Need satisfaction of the intergovernmental coordination of the state's continuing planning process and opportunity for public comment and hearing</p>
How State assures that existing uses are fully protected while allowing lower WQ	<p>Prior to allowing any new or expanded discharges of a pollutant, a Tier 1 review must be conducted and demonstrate that the discharge would not result in the loss or impairment of a beneficial use or violate the water quality criterion for that pollutant. Those pollutants that are documented as already being at or violating Water Quality Standards will receive only a Tier 1 review. The waters designated as high-quality resource waters</p>	<p>Must demonstrate that lowering water quality is necessary in the area in which the waters are located. In evaluating the regulated activity's demonstration of socio-economic importance, the agency may use EPA's Interim Economic Guidance for Water Quality Standards Workbook (EPA 823-B-95-002, March, 1995).</p>

<u>ANTIDEGRADATION INFORMATION</u>	Antidegradation Summary Information by State and EPA Region (continued)	
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	will receive protection of existing uses through maintaining water quality levels necessary to fully protect existing uses or improve water quality to levels necessary to meet the designated use criterion and at preserving or enhancing the physical and biological integrity of these waters. This involves the protection of such features of the water body as channel alignment, bed characteristics, water velocity, aquatic habitat, and the type, distribution and abundance of existing aquatic species.	
How State evaluates BMPs for NPS control in antideg review	To the extent that existing programs establish best management practice requirements for entities contributing to nonpoint pollution those requirements establish the maximum regulatory requirements that can be required pursuant to rule 61.2“b” and 40 CFR 131.12(a)(2). In many cases the Department lacks the authority to require entities that contribute to nonpoint pollution to implement all cost-effective and reasonable best management practices. In either situation, additional best management practices or regulatory requirements must be imposed through modification of statutes or rules outside of the antidegradation review	The regulated activity must document such factors as employment, increased production, improved community tax base, housing, ancillary community economic benefit, correction of an environmental or public health problem, etc. In addition, a regulated entity may be required to submit the following: information pertaining to current aquatic life, recreational, or other water uses; information necessary to determine the environmental impacts that may result from the proposed activity; facts pertaining to the current state of economic development in the area; government fiscal base; and land use in the areas surrounding the proposed activity.
Criteria used to identify ONRWs	Requires nominations to be designated (through rulemaking) as an Outstanding National Resource Water (Tier 3) or an Outstanding Iowa Water (Tier 2 ½). Criteria included in nomination include: 1. Location, 2. Demonstration of exceptional water quality, 3. Demonstration of exceptional ecological significance, 4. Demonstration of exceptional recreational significance, 5. Water supports threatened or endangered species or provides critical habitat for state or federal threatened or endangered species, and/or 6. Water has archeological, cultural or scientific importance or provides a special educational opportunity or is highly aesthetic.	The Antidegradation Implementation Policy refers to the use of trading as one mechanism for assuring existing uses are protected. For example, under Tier 2 protection, the policy states: “A proposed activity that will result in a new or expanded discharge in a water subject to Tier 2 protection may be allowed where the applicant agrees to implement or finance upstream controls of point or nonpoint sources sufficient to offset the water quality effects of the proposed activity from the same parameters and insure an improvement in water quality as a result of the trade.”

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Application of antidegradation policies to other activities such as channel and flow alterations	In so far as these activities are covered under a Section 404 Permit or require a 401 Water quality certification they are subject to antidegradation review. These activities are not specifically called out in the implementation procedures or rule.	If BMPs are demonstrated to be inadequate to reduce or minimize water quality impacts, the Secretary may require that more appropriate BMPs be developed and applied
Determination of cumulative WQ impacts	None identified	ONWRs include, but are not limited to, all streams and rivers within the boundaries of Wilderness Areas designated by The Wilderness Act within the State; all Federally designated rivers under the "Wild and Scenic Rivers Act; all streams and other bodies of water in state parks which are high quality waters or naturally reproducing trout streams; waters in national parks and forests which are high quality waters or naturally reproducing trout streams; waters designated under the "National Parks and Recreation Act of 1978"; and those waters whose unique character, ecological or recreational value, or pristine nature constitutes a valuable national or state resource.
Requirements for alternatives analyses	An applicant proposing any regulated activity that would degrade water quality is required to prepare an evaluation of alternatives to the proposed activity. The purpose of this evaluation is to determine whether or not the proposed degradation is <i>"necessary," that is, no reasonable alternative(s) exist to prevent degradation.</i> These alternatives are compared (in terms of <u>practicability, economic efficiency and affordability</u> ) to the controls required to protect existing uses and to achieve the highest statutory and regulatory requirements (i.e., the more stringent between the water quality-based effluent limits to protect an existing use and the applicable technology-based effluent limits).	Not discussed.

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		Not explicitly addressed, although language at Section 5.6.c in the Antidegradation Implementation Policy touches on this by stating, "Degradation will also be deemed significant if the proposed activity, together with all other activities allowed after the baseline water quality is established, results in a reduction in the water segment's available assimilative capacity of 20% or more at the appropriate critical flow conditions for the parameters of concern.
		The evaluation prepared by the regulated entity must provide substantive information pertaining to the cost and environmental impacts associated with the following alternatives: pollution prevention measures, reduction in scale of project, water recycle or reuse, process changes, innovative treatment technology, advanced treatment technology, seasonal or controlled discharge options to avoid critical water quality periods, improved operation and maintenance of existing treatment systems, and alternative discharge locations.