



Antidegradation: Minnesota Perspectives

Water Quality Antidegradation
Implementation Conference

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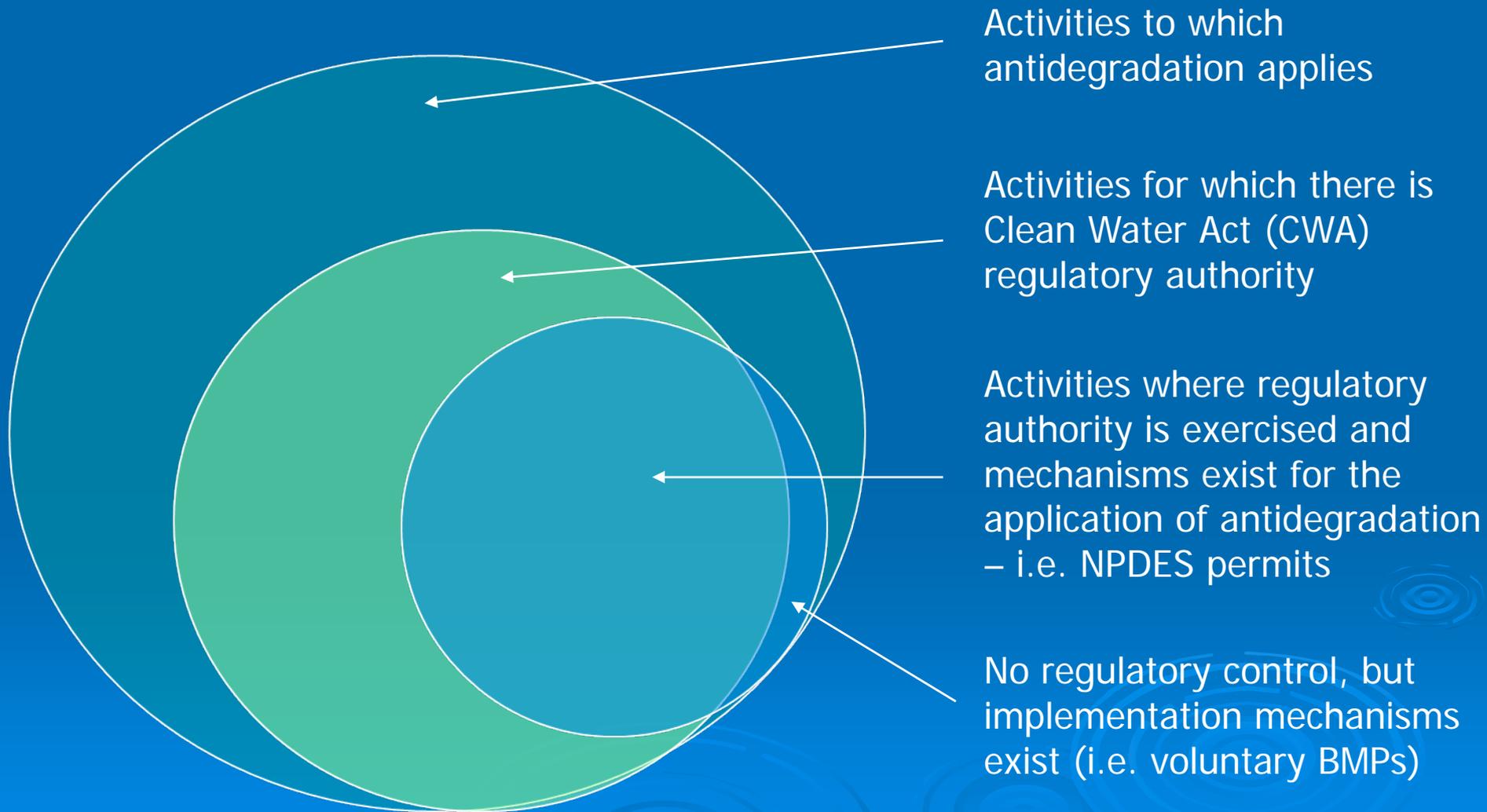
Nondegradation Rules

- 1968 - Initial policy adopted into rules
 - Protection of high water quality
- 1984 - Nondegradation for Outstanding Resource Value Waters (Minn. R. 7050.0180)
 - Previous rule repealed
- 1988 - Nondegradation for All Waters (Minn. R. 7050.0185)
 - Protection of high water quality reestablished
- 1998 - Lake Superior Basin Water Quality Standards (Minn. R. 7052)
 - Addresses bioaccumulative chemicals of concern
- 2007 – Initiated current rule revision

Why revise our rules?

- Current rule is dated, last major revision was 1988
- Narrow focus, implementation procedures are for wastewater
- Legal challenge to application of nondegradation in MS4 stormwater NPDES general permits
- Petition for rulemaking
- Improve procedures for how waters are protected

Applicability, Authority and Implementation



Note: Circle sizes are not intended to represent scale of activities relative to each other.

Determining Level of Protection

Current Approach

- Tier 3 protection: Outstanding Resource Value Waters (ORVWs)
 - Designated through rulemaking
 - ORVW-Prohibited waters – Lowering of water quality is not allowed
 - ORVW-Restricted waters – Lowering of water quality is allowed only when there is not a prudent or feasible alternative
 - Unlisted ORVWs – Discharges are prohibited or stringently controlled

Determining Level of Protection

Current Approach

- Tier 2 protection: parameter by parameter, water bodies not listed as high quality (Tier 2) waters
- Tier 1 protection: “existing beneficial uses must be maintained and protected”, determination made on a case by case basis, water bodies not listed as Tier 1 waters

Determining Level of Protection

Revised Approach

- Maintain Tier 3 designation process through rulemaking
- Maintain protection for ORVW-Prohibited waters
- Require Tier 2 review of applications to discharge to ORVW-Restricted waters where they are of high quality
- Maintain parameter by parameter approach for Tier 2 protection

Determining Level of Protection

Revised Approach

- Provide additional clarification:
 - Assume Tier 2 protection applies where water quality is not impaired (Tier 2 protection by default)
 - Antidegradation still applies to impaired waters: existing uses must be maintained and activities must not cause or contribute to further degradation

Review Triggers

Current Approach

- Review required for significant new or expanded discharges
- New discharge: not in existence prior to Jan. 1, 1988
- Expanded discharge: changes in volume, quality, location, or any other manner after Jan. 1, 1988, such that an increased loading of one or more pollutants results

Review Triggers

Revised Approach

- New or expanded discharges include not only increased “pollutant loading”, but also “pollution” that causes diminished integrity of the water resource (e.g. volume changes impacting habitat)
- Review is triggered by an application to lower water quality beyond what has previously been allowed through review
- Allow for qualified exemptions

Significance Tests

- Significance defined as:
 - where there is a new or increased discharge greater than 200,000 gallons per day, or
 - where there is a mass loading increase of a toxic pollutant greater than 1% over baseline quality

Significance Tests

Revised Approach

- Scaled approach
 - All applications which lower water quality will be required to undergo alternatives analysis with public participation
 - Necessity test scaled to proposed activity – details to be determined

Baseline Determination

Current Approach

- Baseline quality = quality consistently attained by Jan. 1, 1988
- Baseline may be adjusted:
 - using data collect after Jan. 1, 1988, where it was not previously available or when better quality data becomes available
 - to account for improvements in water quality when an existing discharge is eliminated or significantly reduced

Baseline Determination

- Use of “loading baseline” for expanding discharges
 - Review required when loading baseline is exceeded
 - Use of surrogate measures to determine loading baseline, e.g. land use for NPDES-permitted stormwater activities
- New discharges need to establish “receiving water baseline”
 - Review is always required
- Use of Condition Monitoring data

Alternatives Analysis

Current Approach

- Non-degrading alternatives analysis not required in rule, but applied in practice
- Rule requires review of reasonable alternatives which minimize impacts
- Preferred alternative selected by best professional judgment
- Process not well defined in rule or guidance

Alternatives Analysis

Revised Approach

- Greater emphasis placed on alternatives analysis early in the review process, including public input
- Use a step-wise approach
 - Step 1. Non-degrading alternatives
 - Step 2. Minimally degrading alternatives
 - Step 3. Mitigation alternatives
- Define “technologically feasible” and “economically reasonable”
- Provide clear guidance

Necessity Test

Current Approach

- Evaluation of employment, taxes, recreation and “other impacts”
- Determination based on “acceptability”, not “necessity”
- Lack of information regarding existing ambient conditions
- Applicant must demonstrate how public benefits of lowering water quality exceeds public costs of project

Necessity Test

Revised Approach

- Change “acceptable” to “necessary” to reflect federal regulations
- Require better understanding of the impacts to receiving water before decisions are made on whether and to what extent it may be lowered
- Improved guidance
 - Consistency
 - Transparency

Public Participation

Current Approach

- Rule changes are required to be public noticed, public may comment on:
 - Rule language
 - Designation of ORVWs
- Petition for rulemaking
- Review of draft permits: opportunities for written comments, petition for public informational meeting or contested case hearing

Public Participation

Revised Approach

- At minimum, maintain current approach
- Allow for public comment on alternatives analysis – early in review process
- Stakeholder input to current rule revision

General Permits

Current Approach

- No review during general permit development
- Individual review of each action under general permit not required
- Interim approach for NPDES-permitted municipal stormwater discharges

General Permits

Revised Approach

- Review is conducted in a two-step process

Step 1. Conduct a non-degrading alternatives analysis at time of general permit development. Selected non-degrading alternatives (e.g. control measures) are incorporated into permit conditions. Public may provide comment.

Step 2. The Notice of Intent must identify the receiving water(s) and how permit conditions will be met. If permit conditions cannot be met, an individual review is required.

Questions?

**Nondegradation Rulemaking Web Page:
[http://www.pca.state.mn.us/water/
nondegradation-rule.html](http://www.pca.state.mn.us/water/nondegradation-rule.html)**