

# Stakeholder Opening Meeting for Nondegradation Rulemaking

Minnesota Pollution Control Agency

June 5, 2008, 9:00am-12:00pm, Dakota Lodge, West St. Paul

June 5, 2008, 6:30pm-9:00pm, MPCA Offices, St. Paul

June 9, 2008, 1:00pm-3:30pm, MPCA Offices, Rochester

June 11, 2008, 1:00pm-3:00pm, MPCA Offices, Duluth

# Agenda

- Introductions
- Overview of Rule Revision
- Structure of Meetings
- Issue Paper 1 – “Introduction to Nondegradation”
- Break
- Issue Paper 2 – “To which activities does nondegradation apply?”
- Small Group Discussions
- Issue Paper 3 – “What is tier 2 protection of high quality waters?”
- Small Group Discussions
- Summary/Next Steps

# Structure of Meetings

- List of “Topics and Issues” to be covered
- Development of Issue Papers
- Stakeholder meeting – presentation of issues
- Provide comments related to issues
- Response to comments at following meeting

# Stakeholder Topics

- Applicability of Nondegradation
- Protection of High Quality Waters
- Assessment of Impacts of Receiving Waters
- Application of Nondegradation to NPDES-Permitted Stormwater Discharges
- Waters Requiring Special Protection - ORVWs



# Advisory Groups Leads

## Advisory Groups

Rule Coordination

Legal

Stormwater

Water Quality Standards

Effluent Limits

Wastewater Treatment

Monitoring

Nonpoint Sources

Feedlots

Economics

## Contact Person(s)

Carol Nankivel

Dan Berg

Mary Lynn

Larry Zdon

Lou Flynn

Bill Cole

Gary Kimball

Marni Karnowski

Dan Helwig

Dana Vanderbosch

Nick Gervino

Bruce Henningsgaard

Tim Larson

Dave Wall

Robert McCarron

# Revised Timeline

<u>Yr.</u>	<u>Month</u>	<u>Event</u>
'08	June	Initiate stakeholder meetings
'09	January	Finish stakeholder meetings, compile input
	February	Create rough outline of Rule and SONAR
	August	Complete first draft of Rule and SONAR, internal and stakeholder review
'10	March	Complete Rule as Proposed and SONAR
	July	Conduct public hearings
	December	MPCA Citizens Board adoption, Rule sent to Governor and EPA for approval
'11	January	Rule approved by Governor and becomes effective
	March	Rule approved by EPA

# Issue Paper 1. Introduction to Nondegradation

- What is nondegradation?
- History of nondegradation rules in MN
- Current MN nondegradation rules
- What will a good nondegradation rule look like?

# What is nondegradation?

- Nondegradation = Antidegradation
- Nondegradation is:
  - Part of the states water quality standards
  - A procedure by which states review activities that have the potential to lower water quality
  - A tool used to maintain water quality



# Who, what, where and when?

- Who?
  - MPCA is the delegated Clean Water Act (CWA) agency and state agency charged with pollution control (Minn. Statute 115.03), EPA
- What?
  - Any activity that lowers water quality
- Where?
  - Waters of the state – defined in Minn. Statute 115.01
- When?
  - When activity is proposed, rulemaking, development of guidance, planning

# Federal Requirements - Clean Water Act (CWA)

- CWA objective:
  - “...restore and **maintain** the chemical, physical, and biological integrity of the Nation’s waters.”
- CWA requirement for adoption of water quality standards including:
  - Designated uses
  - Water quality criteria necessary to support designated uses
  - Antidegradation provisions

# Water Classifications

- Class 1 Domestic Consumption – Drinking
- Class 2 Aquatic Life and Recreation
- Class 3 Industrial Consumption
- Class 4 Agriculture and Wildlife
- Class 5 Aesthetic Enjoyment and Navigation
- Class 6 Other Uses
- Class 7 Limited Resource Value Waters

# Federal Requirements - 40 CFR § 131.12

- Adopt nondegradation policy and implementation procedures consistent with federal regulations:
  - Protection of existing uses
  - Protection of high quality waters (waters where water quality is better than the standard); decision-making process
  - Protection of exceptional waters – Outstanding National resource waters
  - Protection from thermal degradation (consistent with CWA Section 316)



# EPA guidance

- Questions and Answers on Antidegradation, 1983
- Region V Guidance for Antidegradation Policy Implementation for High Quality Waters, 1986
- Water Quality Standards Handbook, 1994
- Interpretation of Federal Antidegradation Regulatory Requirements, 1994
- Water Quality Guidance for the Great Lakes System (SID), 1995
- Interim Economic Guidance for Water Quality Standards, 1995
- Advanced Notice of Proposed Rulemaking, 1998
- Tier 2 Antidegradation Reviews and Significant Thresholds, 2005

# History

- 1968 – Federal and Minnesota nondegradation policy established
- 1975 – Federal antidegradation policy incorporated into EPA's first Water Quality Standards Regulations
- 1983 antidegradation requirements codified as 40 § 131.12
- 1984 – Nondegradation Policy - Minn. R. 7050.018 – includes Outstanding Resource Value Waters (ORVWs)
- 1988 – Nondegradation for All Waters - Minn. R. 7050.0185; Nondegradation Policy renamed Nondegradation for Outstanding Resources Values Waters (ORVWs) at Minn. R. 7050.0180

# History (continued)

- 1998 – Lake Superior Basin Water Quality Standards - Minn. R. 7052 – Addresses bioaccumulative chemicals of concern (BCCs) in the Lake Superior basin
- 2003 – Minnesota Court of Appeals' decision regarding nondegradation and stormwater.
- 2007 – MCEA petition for nondegradation rulemaking
- 2007 – Rulemaking initiated with published Request for Comments in *State Register*
- 2007 – Stormwater Nondegradation Analysis Project conducted by Tetra Tech.
- 2008 – Triennial Rulemaking – Revision of Minn. R. 7050.0185 – (Nondegradation for all Waters) provides language changes that better reflect federal antidegradation requirements.



# Current Rules – Nondegradation for Outstanding Resource Value Waters (ORVWs), (Minn. R. 7050.0180)

- Exceptional recreational, cultural, aesthetic or scientific resources
- New or expanded discharge = date of ORVW designation (1984, 1988)
- Prohibited category
  - “No person may cause or allow new or expanded discharge...”
- Restricted category
  - “No person may cause or allow new or expanded discharge ...unless there is not a prudent and feasible alternative...”
- Protection from upstream discharges
  - No deterioration of downstream ORVWs



# Current Rules - Nondegradation for All Waters (Minn. R. 7050.0185)

- Where water quality is better than standards, that quality:
  - must be maintained and protected, unless..
  - a finding is made that lowering of water quality is acceptable. Considerations:
    - Additional control measures reasonably taken to minimize impact and the additional treatment costs
    - Importance of economic and social development
    - Characteristics of the receiving water
    - Cumulative impacts
- Notice and opportunity for public hearing (Minn. R. 7001) before establishing reasonable control requirements

# Current Rules - Nondegradation for All Waters (Minn. R. 7050.0185), continued

- Protection of existing beneficial uses from point and nonpoint sources
- Protection of aquatic and wetland habitats
- Baseline for water quality, and new and expanding discharges = Jan. 1, 1988
- Significant discharges (nondegradation review triggers):
  - 1) discharges greater than 0.2 MGD, or
  - 2) a discharge containing any toxic pollutant at a mass loading rate likely to increase the concentration of the toxicant in the receiving water by  $> 1\%$ .
    - ❖ Low flow ( $7Q_{10}$ ) conditions
    - ❖ Mass balance equation treats all toxics as conservative

# What Will a Good Nondegradation Rule Look Like?

- Workable implementation procedures that follow policies
- Balance between economic, social and environmental needs
- Pragmatic approach concerning resources needed to implement the rule
- Flexibility – not impede current and future Agency practices (i.e., TMDLs, trading, TALU, etc.)
- Legally-defensible policies that meet federal regulations



# Issue Paper 2. To which activities does nondegradation apply?

- How does nondegradation apply to the three tiers of protection defined in 40 CFR 131.12?
- Applicability, implementation and regulatory control
- Challenges of implementing nondegradation
- Discussion points



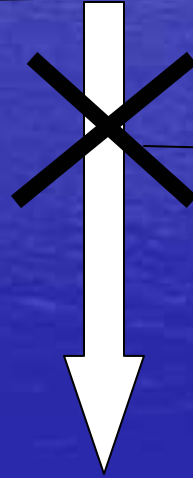
# How does nondegradation apply to the three tiers of protection defined in 40 CFR 131.12?

- Tier 1. Protection of existing uses
- Tier 2. Protection of high quality waters (waters where water quality is better than the standard)
- Tier 3. Protection of exceptional waters
  - Outstanding National resource waters

# Tier 1 Protection

**Protection of  
Existing Uses**

**Existing Use**



**Level of water  
quality must be  
maintained to  
protect existing  
uses.**

# Tier 2 Protection

**Protection of  
High Quality  
Waters**

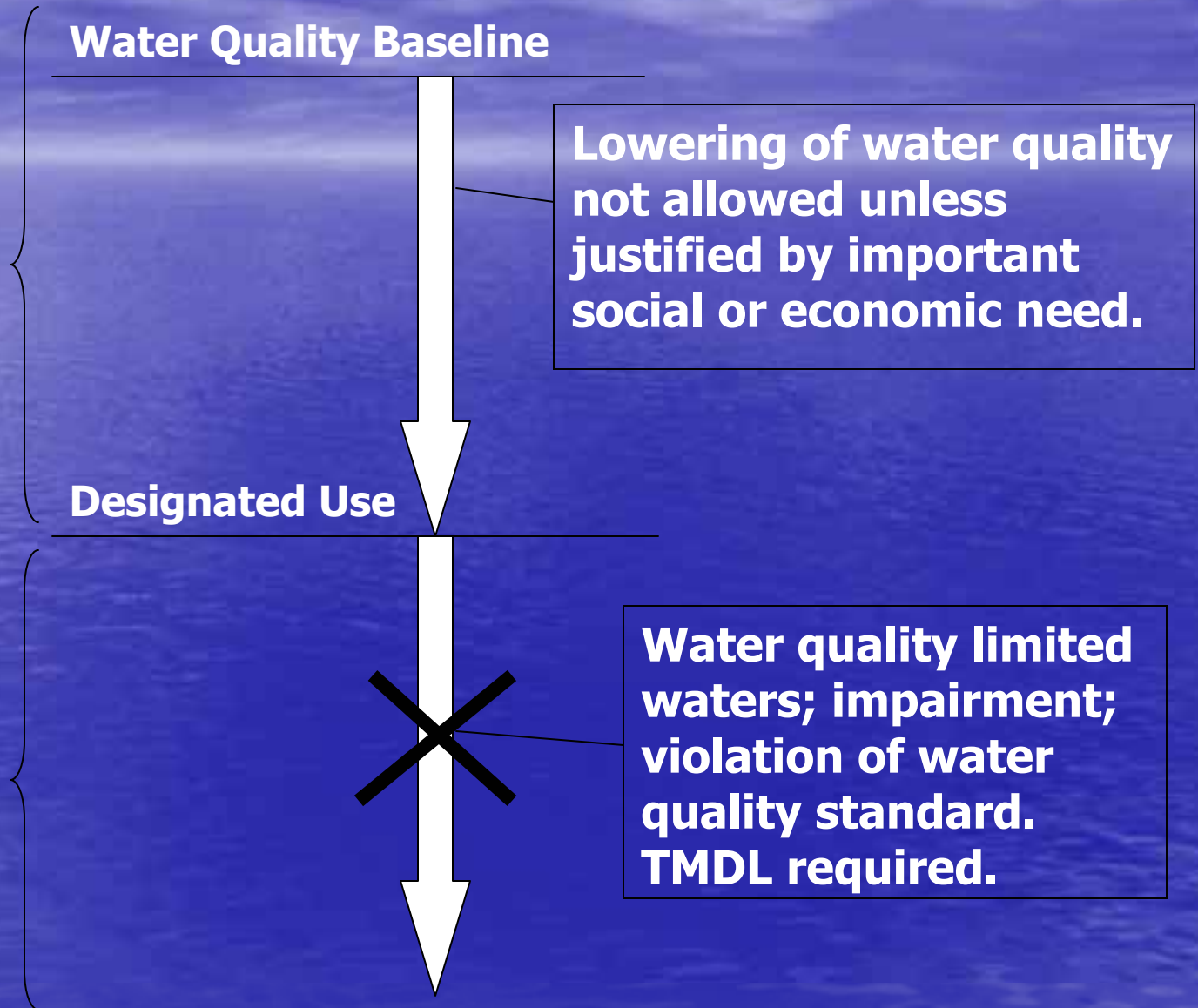
**Water Quality Baseline**

**Lowering of water quality  
not allowed unless  
justified by important  
social or economic need.**

**Designated Use**

**Restoration  
via TMDL  
program to  
meet  
designated  
uses**

**Water quality limited  
waters; impairment;  
violation of water  
quality standard.  
TMDL required.**



# Tier 3 Protection

**Protection of  
outstanding  
National  
resource  
waters  
(ONRWs)**

**Water Quality Baseline**



The diagram features a large white arrow pointing downwards, which is crossed out by a thick black 'X'. A horizontal line is positioned above the arrow, labeled 'Water Quality Baseline'. A bracket on the left side of the diagram groups the 'Protection of outstanding National resource waters (ONRWs)' text with the 'Water Quality Baseline' line and the downward arrow. A callout box on the right points to the 'X' on the arrow.

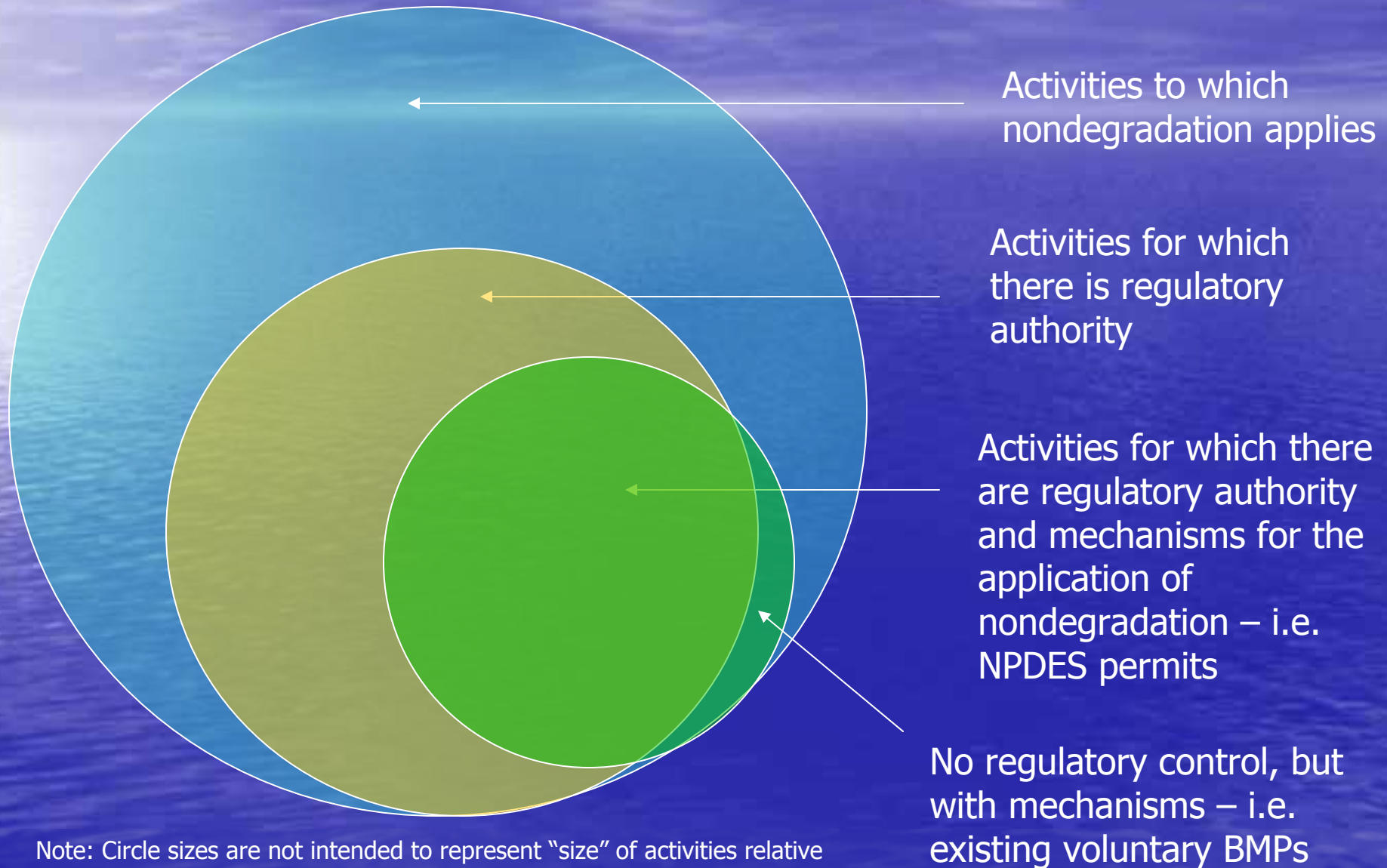
**Lowering of water  
quality not allowed,  
except for temporary  
conditions.**



# Applicability, Implementation and Regulatory Control

- Nondegradation applies to any activity that has the potential to affect water quality.
- Nondegradation is implemented through:
  - statutory and regulatory controls where there is regulatory authority over point sources
  - “cost-effective and reasonable BMPs for nonpoint sources”
- Nondegradation is only enforceable where there is regulatory authority (control document)
  - Examples: NPDES permits, 401 certifications

# Applicability and Regulatory Control



# Challenges of Implementing Nondegradation

- Nondegradation provisions do not create any new regulatory control over otherwise unregulated activities
- Although nondegradation applies to all activities, implementation mechanisms may not exist
- The need to clarify for which activities there is regulatory authority
- Application of nondegradation to unregulated activities

# Discussion Points

- Are there regulated activities where the state may implement nondegradation requirements, other than for those for which we currently regulate and for which there are implementation mechanisms?
- Where regulatory mechanisms are currently not in place, what options are available for implementing nondegradation?



# Discussion Points - continued

- Could or should units of government, in addition to the state, use their regulatory authority to implement nondegradation?
- What procedures can be used in the implementation of otherwise non-enforceable BMPs before allowing point source degradation of high quality waters.
- Additional questions that should be asked regarding the applicability of nondegradation or thoughts that were not addressed.

# Issue Paper 3. What is tier 2 protection of high quality waters?

- What are high quality waters? – 40 CFR 131.12 (a) (2)
- Water quality standards used to determine high quality waters
- Basic approaches for the protection of high quality waters
- Nondegradation Review: a decision process
- Discussion Points

# What are high quality waters?

- 40 CFR § 131.12 (a) (2)
  - “Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water,...”
  - What does “quality of the waters” refer to?
    - Biological, chemical and physical attributes
  - “levels” refer to the states water quality standards

# Water quality standards used to determine high quality waters

- Chemical standards
  - Numeric
  - Historically used in addressing nondegradation
- Biological standards
  - Narrative
  - Need for a translator to convert to a quantitative measure, IBI
  - Tiered Aquatic Life Use (TALU) standards
  - Introduced exotic species; threatened and endangered species
- Physical standards
  - Habitat
  - Need for a translator to convert to a quantitative measure



# Basic approaches for the protection of high quality waters

- Approaches to how protection is applied
  - Pollutant-by-pollutant (parameter-by-parameter) approach
    - Individual pollutants compared to applicable standard
    - An individual waterbody may be considered high quality for one pollutant, yet impaired for another
  - Waterbody-by-waterbody approach
    - Requires a weight of evidence approach that weighs relative importance to multiple factors.

# Basic approaches for the protection of high quality waters (continued)

- When is the determination of high quality made?
  - Prior to nondegradation review
    - Waterbody assessments - pre-designated and listed
    - Default - assumes high quality waters are those that are not impaired and not set aside as having exceptional value (ORVWs), assumes un-assessed waters are high quality
  - At time of nondegradation review
    - Ambient water quality gathered for parameters of concern and then compared to a baseline

# Nondegradation Review: A decision making process

- Determination or finding of necessity to lower water quality
- Accommodations for important social or economic development (through a nondegradation demonstration)
- Intergovernmental cooperation and public participation

# Nondegradation Review: A decision making process (continued)

- Existing uses must be protected
- Ensure the “highest statutory and regulatory requirements all new and existing point sources”
- Ensure “all cost-effective and reasonable best management practices for nonpoint source control”



# Discussion Points

- Which approach to high water quality protection is more desirable (pollutant-by-pollutant or waterbody-by-waterbody)?
  - Why is the choice preferred?
  - Are there other approaches that should be considered?

# Discussion Points - continued

- When making a determination of high water quality, what are the advantages and disadvantages to making that determination:
  - prior to nondegradation review, or
  - at the time of nondegradation review
- Which is more desirable?
- Are there other approaches that should be considered?

# Discussion Points - continued

- How can narrative standards be used in nondegradation review?
- Do you believe that impaired waters are subject to nondegradation review? Under what circumstances?
- Additional questions that should be asked regarding the protection of high quality waters or thoughts that were not addressed.

# Next Steps

- Next meeting scheduled for end of July
- Additions comments received up to one week after meeting
- Additional opportunities for discussion
- Nondegradation Rulemaking Web Page:
  - <http://www.pca.state.mn.us/water/nondegradation-rule.html>