



Proposed Revisions to Water Quality Rules and Regulations, Chapter 1, Wyoming Surface Water Quality Standards

Discharger Specific Variances

February 21, 2018



Outline

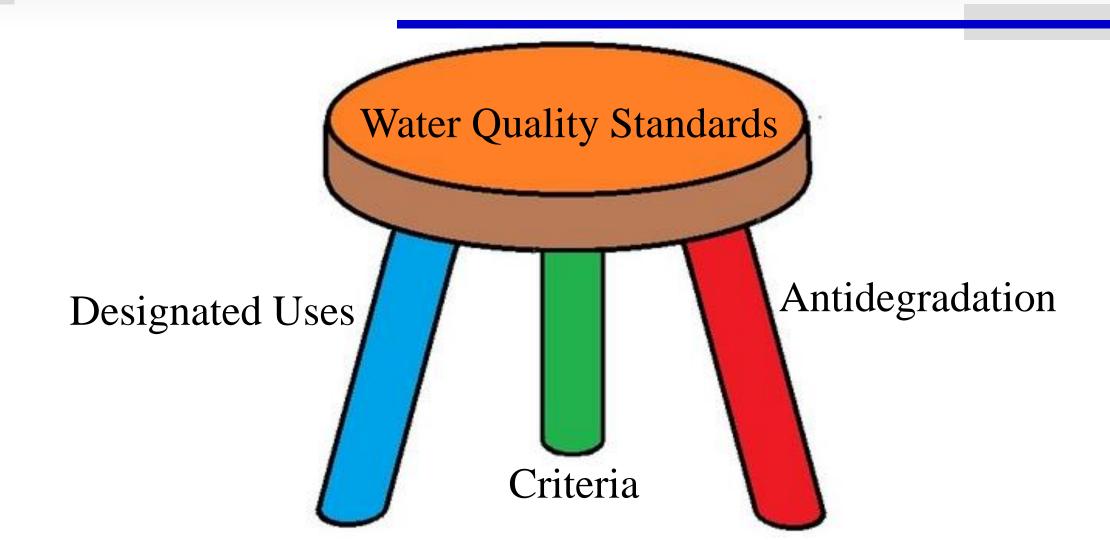
Background on Surface Water Quality Standards

Reasons For Proposed Rule

Comments and Changes to Proposed Rule



Surface Water Quality Standards





Water Quality Criteria

 Concentrations of pollutants or narrative conditions necessary to support designated uses



• When derived, do not take into consideration the feasibility (costs, available treatment, etc.) of meeting the criteria



Downstream (Qr, Cr)

Water Quality Criteria and Point Sources

• Water quality criteria are used to develop water quality based effluent limits (WQBELs)

(Qs, Cs)

Discharge (Qd, Cd)

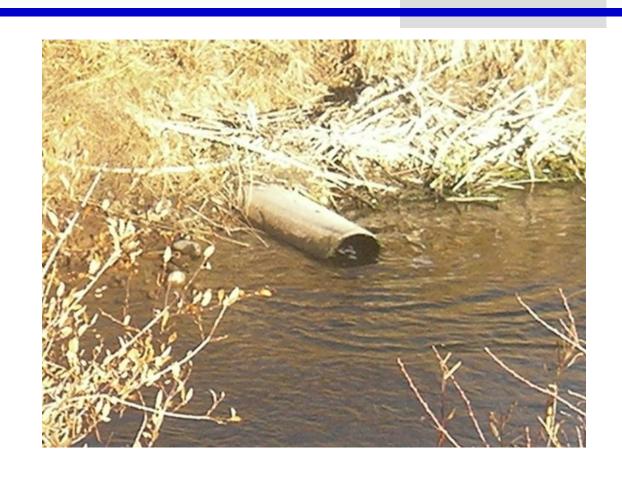
- WQBELs also consider:
 - > amount of effluent
 - > low flow of receiving water
 - background concentration in receiving water



Current Options to Modify WQBELs

- Permitting Options
 - Modify input parameters
 - Compliance schedule

- Water Quality Standards Options
 - Modify designated uses
 - > Site-specific criteria





Reasons for Proposed Rule

 Recently, a small Wyoming municipality with a wastewater lagoon received a stringent ammonia effluent limit based on a total maximum daily load (TMDL)

• EPA's 2013 recommended ammonia criteria

Numeric nutrient criteria



Reasons for Proposed Rule

• Most wastewater treatment facilities in Wyoming are lagoons not designed to treat to low levels of ammonia or nutrients

· Costs to upgrade facilities to meet ammonia and/or nutrient limits are significant and may not be affordable for small communities



Clean Water Act and Variances

- Lots of interest in variances nationally due to increasingly stringent water quality criteria
 - > Montana, Colorado, Wisconsin, Kansas, Missouri

- · Federal regulations for water quality standards were revised in 2015
 - > Include additional details on variances



Proposed Rule

 Administrator may grant a variance to a designated use and water quality criteria for ammonia and/or nutrients (e.g., total nitrogen, total phosphorus)

Ammonia and nutrients are the focus since treating for these pollutants may not be economically feasible for small communities



Proposed Rule: Demonstration

· Permittee must complete a comprehensive alternatives analysis

• Must demonstrate that the most economical means of meeting the water quality based effluent limit would result in "substantial and widespread economic and social impact" (i.e., economic hardship)



Proposed Rule: Highest Attainable Condition

- Permittee must implement actions to achieve the highest attainable condition of the receiving water
 - > Effluent limit closest to the water-quality based effluent limit that is feasible to achieve without causing economic hardship



Proposed Rule: Highest Attainable Condition

· Identified through a comprehensive alternatives analysis and/or other supporting documentation

Also includes developing and implementing a pollutant minimization program



Proposed Rule: Duration

• Duration is only as long as necessary to achieve the highest attainable condition



Proposed Rule: 5-Year Reevaluation

- Did the permittee comply with conditions of the variance?
- Is the information used to justify the original variance the same (e.g., pollutant control costs, economic conditions, etc.)
- Does the highest attainable condition need to be modified?
- 30-day public comment period



Comment: Wyoming Game and Fish

• An environmental analysis should be completed to determine impacts to aquatic resources

 Variance should also require monitoring of aquatic resources to ensure that aquatic resources are not being impacted by increased discharge of pollutant



Response: Wyoming Game and Fish

• The goal of a variance is to improve water quality and aquatic resources over time

· Doesn't allow for increases in the discharge of the pollutant

• DEQ can initiate a revaluation at any time



Comment: Wyoming Game and Fish

• Need definition and/or sideboards for what constitutes "substantial and widespread economic and social impacts"



Response: Wyoming Game and Fish

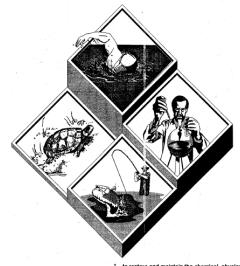
- Language is derived from the federal regulations
- EPA developed guidance in 1995
 - Not absolute decision points
 - > Other economically defensible approaches are acceptable
- DEQ developing guidance



Environmental Protei Agency ffice of Water 303) EPA-823-B-95-00 March 1995

Interim Economic Guidance for Water Quality Standards

Workbook



"... to restore and maintain the chemical, physical, and biological integrity of the Nation's waters "

Section 101(a) of the Clean Water Act

Appendix M to the Water Quality Standards Handbook - Second Editio







Comment and Response: USEPA

• Changes to the "interim effluent condition" as part of the reevaluation (Section 37(h)(ii)) should be "highest attainable condition"

Revised rule accordingly



Comment and Response: USEPA

- Highest attainable condition can only get more stringent during a reevaluation
- If reevaluation determines that the highest attainable condition needs to be more lenient, the variance needs to be revised

Revised rule to clarify



Comment: USEPA

• Requested DEQ remove: "The variance shall become effective either upon EPA approval or 90 days after submittal, whichever comes first."



Comment: USEPA

- Clean Water Act provides a 60-day timeframe to approve submissions and 90 days to disapprove submissions
 - Restated in the federal regulations

• Federal regulations also state that EPA has to approve the variance in order for it to be "the applicable standard for purposes of the Clean Water Act"



Response: USEPA

 Revised language to allow the director to grant an extension upon request by EPA's Regional Administrator

• Also outlines that the variance shall become effective upon either EPA approval or the expiration of the extension



Questions?

