Human Health Criteria Implementation Tools

Alaska Department of Environmental Conservation
Division of Water
Water Quality Standards, Assessment and Restoration
Nancy Sonafrank
October 2015

Division of Water

Mission Statement:

- Improve and protect water quality

How?

- **Establishes standards for water cleanliness**
- Regulates discharges to waters and wetlands
- Provides financial assistance for water and wastewater facility construction and waterbody assessment and remediation
- Trains, certifies, and assists water and wastewater system operators
- Monitors and reports on water quality

Human Health Criteria (HHC) Implementation Tools

What are implementation tools?

Procedures that:

1. Ensure the regulated discharger is **doing everything reasonably feasible** to control the pollutant in their discharge.
2. **Mitigate the cost and provide a transition period** for regulated dischargers to get to new lower pollutant levels after new standards are adopted.

Human Health Criteria (HHC) Implementation Tools

Why are implementation tools necessary?

- Developing HHC based on updated fish consumption rates will result in more protective criteria
- In some cases, new criteria levels will be difficult to achieve
- Clean Water Act programs are limited in what they can control
- To avoid situations where
  - communities are immediately out of compliance with treatment plants that handle sewage
  - businesses become liable for third party lawsuits

Human Health Criteria (HHC) Implementation Tools

Objectives

- Result in measurable toxics reduction
- Result in discharges being able to stay in compliance
- Be issued and administered in a timely way without over-burdensome administrative costs
- Be legally defensible
- Provide opportunities to include new science

Human Health Criteria (HHC) Implementation Tools

Existing implementation tools

1. Short term variance
   - nonpoint source only – mainly dredge and fill
2. Compliance schedule
   - Identifies interim measures specified as a sequence of actions
   - Sets completion dates leading to compliance
   - Used when
     - Treatment is achievable with available technology
     - Time is needed to finance, design and build new treatment capability

Human Health Criteria (HHC) Implementation Tools

New tools being considered by DEC

1. Water Quality Standard Variances
   - Temporary reclassification of water uses
   - Treatment methods may be unknown
2. Intake Credits
   - Accounts for pollutants already present in intake water
   - Already partly considered in APDES regulations (18 AAC 83)

Water Quality Standard (WQS) Variances

- Variance authority and conditions could be adopted in WQS regulation
  - Consistent with 2015 federal WQS regulations
- Temporary modification of water uses and criteria
- Variance implemented in a individual permit
  - Does not require regulation change
  - Public noticed with permit
  - Requires approval from EPA WQS program

Water Quality Standard (WQS) Variances

- More complicated variances may require a regulation change
- Waterbody variance
  - Multiple dischargers to a waterbody
  - Mix of point (permitted) and nonpoint (no permit) sources

Elements of a WQS Variance

1. Demonstrate that a variance is necessary

   Limited to the same six factors as use attainability analysis in 40 CFR 131.10(g)

   - Naturally occurring pollutant
   - Natural, ephemeral, intermittent or low flow conditions or water levels
   - Human caused conditions or sources of pollution cannot be remedied or would cause more environmental damage
   - Dams, diversions or other types of hydrologic modifications
   - Physical conditions related to the natural features
   - Substantial and widespread economic and social impact

WQS Variances Elements

2. Ensure that toxics reductions must occur
   - Identify specific and adaptable actions
   - Require a pollution minimization plan
   - Set milestones and dates for specific accomplishments
   - Require monitoring to measure effectiveness and compliance

WQS Variances Elements

3. Build in accountability
   - Set interim criteria
   - Allow pubic review at issuance and permit renewals
   - Set enforceable conditions in permit
   - Regulated dischargers shielded from litigation if complying with variance conditions in permit
   - Waterbody variances
     - Watershed assessment and monitoring
     - Permit conditions
     - Nonpoint source watershed management plan

WQS Variances Elements

4. Set the duration of a variance
   - Some variances have durations as long as 40 years
   - Must set a duration – only as long as necessary
   - If longer than 5 years
     - Mandatory re-evaluations at specified intervals, not less than every 5 years
     - Submit re-evaluation results to EPA within 30 days
   - If the full designated use is not attained within the set duration
     - A new variance proposal may be submitted with a full review
     - A use attainability analysis may be submitted to justify a permanent reclassification of the use

WQS Variances Elements

5. Consider other pollution sources
   - Permit requirements must address nonpoint and other sources that are attributable to the permittee
   - Waterbody variances must also address
     - Identify regulatory and financial gaps that are barriers to nonpoint source reductions
     - Identify nonpoint source actions that need to be implemented
     - Include a schedule and resources necessary to implement nonpoint source actions

Why do a Variance?

After all – It's temporary and potentially more work to maintain than permanent water use reclassification

A variance

- Doesn't require a regulation change
- Allows the facility to operate in compliance while exploring other options
- Provides an opportunity to identify, evaluate and implement feasible water quality improvements
- Can provide information and time to develop a use attainability analysis and permanent reclassification of water uses.

Water Intake Credits

- Used when discharger is not a source of a pollutant
- Discharge is to same water as intake
- "No net addition" of the pollutant
  - No increase to mass or concentration
  - No change in chemical form of pollutant
- Natural or human caused pollution
- Used by Washington and Oregon
- Permitting tool, does not change water quality criteria

Why do Intake Credits?

- Does not establish natural conditions
- Ensures discharger is not held responsible for pollutants already present in intake water
- Does not require a regulatory change
- May not require an approval by EPA WQS

Human Health Criteria (HHC) Implementation Tools

Other tools used by states

1. Restoration water quality standards
   - similar to variances – Florida only for nutrients
2. Multiple discharger variances
   - for mercury - Great Lakes states
3. Phased implementation of rulemaking components
4. Site specific background pollutant criteria
   - similar to intake credits
5. Water quality trading/pollutant credit trading
   - most often used for nutrients

Human Health Criteria (HHC) Implementation Tools

Questions?
Thank you for your time!

Nancy Sonafrank
Environmental Program Manager
(907) 451-2726
nancy.sonafrank@alaska.gov