Notebook Ref 2.4

Issue #2:
Baseline Water Quality

Why is baseline water quality important in antidegradation implementation?

- Relates to tier classification of a waterbody
- Characterization of baseline water quality dependent on the approach to assigning tiers (i.e., water body or parameter)
- Part of the foundation for Tier 2 antidegradation analyses
- Can influence what types of alternatives need to be considered for a proposed new or increased activity

Some State Examples

Oklahoma – Baseline Water Quality (BWQ)

- Based on a waterbody-by-waterbody approach.
- Lists waters that are "high quality", (i.e. those to be protected from new sources of degradation unless alternatives analysis or socioeconomic justification is developed).
- State has sufficient WQ data to determine BWQ.
- State does not accept data collected by volunteers in general.
- State has no allowance for de minimis levels of pollution from regulated activities discharging into Tier 2 waters.

South Carolina – Baseline Water Quality (BWQ)

- Based on a parameter-by-parameter approach.
- Baseline water quality (for Tier 3 ONRW's and Tier 2.5 ORW's) is characterized at the time of classification.
- SC adheres to strict policies regarding water quality data collection, monitoring, and assessment while conducting probabilistic sampling to determine overall trends.

Minnesota – Baseline Water Quality (BWQ)

- Based on parameter-by-parameter approach.
- Assumes a waterbody is Tier 2 by default.
- Includes “increased flow” as a potentially degrading parameter since it can affect aquatic habitat.
- Water quality information collected by multiple entities including the state, and in some cases, dischargers.
- Minnesota will adjust baseline water quality upward if improvements in water quality conditions occur.

Arizona – Baseline Water Quality (BWQ)

- Tier classification applied on a pollutant-by-pollutant basis.
- Presumed protection level is Tier 2 for all pollutants of concern for perennial waters not listed as impaired or as an outstanding water.
- BWQ can be established for perennial surface waters through monitoring and assessments conducted by ADEQ, regulated entities, or others.
- When a surface water is characterized to establish BWQ, that characterization serves as the point of reference for future reviews unless the BWQ is updated to reflect changes.

Some issues for discussion:

- How much information is needed to set baseline water quality?
- What level of statistical analyses is necessary?
- How should seasonal or inter-annual variation be factored in?
- How can costs be minimized to address baseline water quality?