

Date: April 26, 2010

To: paula.wilson@deq.idaho.gov

From: Mike Neher, Environmental Manager, City of Post Falls

**Re: Comments on
IDAPA 58.01.02 – WATER QUALITY STANDARDS
Docket 58-0102-1001 Antidegradation Implementation Procedures – Draft No. 1**

The City of Post Falls appreciates this opportunity to help improve the water quality standards and would like to make the following comments and suggestions for Draft No. 1 of the revised rules pertaining to antidegradation implementation procedures.

General Comments

Post Falls encourages and supports a revision of the antidegradation rules in a way that meets the minimum federal requirements, yet protects state's rights and carefully provides maximum flexibility to IDEQ in its primacy authority over waters of the state.

In this regard, the regulations and/or a memorandum of understanding with EPA should make clear that IDEQ retains its authority to make antidegradation determinations. Rather than EPA making these determinations, EPA should seek antidegradation reviews and decisions from IDEQ as needed for EPA to complete the development of NPDES permits for Idaho dischargers.

Greater administrative flexibility could be obtained if much of the implementation policy was put into guidance, rather than into regulation, as may be appropriate. This could increase IDEQ's discretionary authority in dealing with diverse and unique situations.

Specific Comments

Section 051-01. a. : Revise to "Maintain the high quality of surface waters of Idaho."

Section 051-01.c.ii., second sentence: Revise to "This protection ensures that degradation of high quality surface water is allowed only where the Department finds that ~~allowing~~ the degradation is necessary to accommodate ~~important~~ economic or social development in the area in which the waters are located."

Section 051-01.c.iii.: Revise to "Tier II ½ protection applies to limit degradation caused by point sources to waters designated as Special Resource Waters to ensure degradation caused by point sources is limited." This change will be consistent with the format used in the other Tiers.

Section 051-01.c.iv.: Revise to "Tier III protection applies to limit degradation caused by point sources to waters designated as Outstanding Resource Waters to prohibit further degradation of water quality." This change will be consistent with the format used in the other Tiers.

Section 051-04.d.i. and v. : These two sections specify that the calculated change on water quality caused by a discharge must be “measurable,” which term is being provided with a new definition. We agree with the IDEQ’s approach to limit a determination of “change” to a change that is measurable as defined by standard methods. This is an important concept that should be protected and strengthened if needed to protect it against misinterpretation by third parties.

IDEQ may need to further define “measurable” change. Referring to Standard Methods is a good starting point, but the subjects of detection limits and data variability are complex. Standard Methods often provides more than one analytical method for a parameter, each with its own level of precision. Analytical laboratories often report precision as Practical Quantitation Limit (PQL). Accepted analytical methods use 99% confidence limits, not 95%. IDEQ may need to develop a list of parameters and associated PQLs that IDEQ will use as the basis for measurable change determinations.

For a recent scholarly discussion on detection limit issues, please see:

<http://www.werf.org/AM/Template.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=8722> and

http://en.wikipedia.org/wiki/Detection_limit

The above reference sources defines PQL as:

“The practical quantification limit (PQL) represents a practical and routinely achievable limit with a high degree of certainty (> 99.9 percent confidence) in the results. The PQL is determined simply as about 5 times the MDL (Eaton *et al.*, 2005).” We concur with IDEQ that “measurable” should mean “practical ability to detect change.” PQL would be the most appropriate standard for this objective.

The first reference source (in Table 3) indicates the lowest MDL for phosphorus is 2 ug/L. Thus, the PQL for phosphorus using that method would be 10 ug/L, which should be used to define measurable change for total phosphorus.

We recommend that the proposed definition for “Measurable” should be revised as follows:

“Measurable. Refers to the practical ability to detect change in water quality taking into account limitations in analytical technique and sampling variability. Because analytical techniques change and repeated sampling and application of statistics can enable detection of progressively smaller changes, the following changes are established as practically unmeasurable:

1. A change in temperature of less than 0.3°C
2. A change in dissolved oxygen of less than 0.2 ~~ppm~~ mg/L
3. A change in total phosphorus of less than ~~2~~ 10 ug/L

4. For other parameters, ~~the a change that can be detected~~ is less than the Practical Quantitation Limit (PQL) with 95 a 99.9% confidence limit using the latest edition of sStandard mMethods of analysis for the Examination of Water and Wastewater, (APHA, AWWA, WEF), or other peer-reviewed method approved by IDEQ.”

Section 401.03. Total Chlorine Residual.: This requirement states, “The wastewater must not affect the receiving water outside the mixing zone so that its total chlorine residual concentration exceeds eleven on-thousandths (0.011) mg/l.” This limit appears to be impracticably low. According to a recent study (http://www.dnr.mo.gov/env/wpp/permits/manual/T_0.pdf), the MDL for chlorine residual is 0.04 mg/L. Using the definition of PQL above, the chlorine residual PQL would be 0.2 mg/L, which should be IDEQ’s enforceable limit. Even though the City of Post Falls currently uses UV light instead of chlorine for disinfection, we would still recommend that section 401.03 be revised as follows to be consistent with the definition of “measurable”:

“The wastewater must not ~~affect~~ cause the total chlorine residual in the receiving water outside the mixing zone ~~so that its total chlorine residual concentration to exceeds eleven on-thousandths (0.011) mg/l~~ increase more than two tenths (0.2) mg/L.”