September 13, 2018

Washington State Department of Ecology
Water Quality Program
Attn: Becca Conklin
PO BOX 47600
Olympia, WA 98504-7600

Dear Ms. Conklin:

The Interagency Project Team (Team) thanks the Washington State Department of Ecology (Ecology) for efforts to update the state's water quality standards to include new bacterial indicators for recreational use. The Team supported such changes in their, *Recommendations for Improving Water Quality Assessment and Total Maximum Daily Load Programs in Washington State*[1] report (recommendation 3a), and the Team is generally supportive of the proposed rule changes to Chapter 173-201A (Rule).

The Team appreciates Ecology's efforts in developing an Implementation Plan (Plan) which will be helpful for permittee planning. There is concern that the lack of some key details in the Plan may result in inconsistent implementation, moreover because the Rule itself lacks details important to permittee planning. The Team also has logistical concerns about Rule adoption, the finalization of Ecology's Water Quality Policy 1-11, and the current Water Quality Assessment.

The Team would like to provide the following comments and recommendations on the Rule and Plan:

Proposed Rule

1. **Comment:** References to Ecology's Water Quality Policy (WQP) 1-11 Chapters 1 and 2 within the Rule would benefit stakeholders looking to understand linkages between the Rule and data collection, evaluation, and assessment policies.

   Recommendation: Embed a reference to WQP 1-11 within the Rule.

2. **Comment:** Ecology's February 2018 public review draft of WQP 1-11 included a minimum of five (5) freshwater fecal coliform samples to calculate a geometric mean value in accordance with WAC d173-201A-200(2)(b)(i). The draft Rule proposes lowering that minimum to three (3) samples, but does not provide the basis for the smaller sample size. The highly variable nature of fecal coliform bacteria requires a greater sampling effort and appropriate sample design to demonstrate that a water body meets standards during a critical period[2] (Ecology, 2016). The Team can appreciate the precautionary safeguards for using a small sample size for immediate public health alerts. However, this Rule impacts policy related to 303(d) listing so it must ensure the sample size is adequate to represent the general condition of the water body (e.g., minimize skew from episodic events).

[1] Interagency Project Team. 2014. Recommendations for Improving Water Quality Assessment and Total Maximum Daily Load Programs in Washington State.
[2] Ecology. Error Analysis for Water Quality Policy 2-11. December 2016.

Recommendation: The Team encourages Ecology to provide stakeholders the scientific rationale for proposing a minimum of three (3) samples for calculation of geometric mean.

3. **Comment:** The terminology "averaging period" is undefined.

   Recommendation: Define "averaging period" or modify the term to ensure consistency with WQP 1-11 and definitions for "critical period."

Implementation Plan

4. Page 4, last paragraph, "The proposed rule will now require a minimum of 3 sample values within the averaging period to calculate the geometric mean for comparison to the geometric mean criteria. **Permit writers should require weekly sampling to collect an adequate number of samples to compare to the geometric mean.** The STV (or 10% not-to-exceed value) may continue to be used as a single sample maximum in permits when sample sizes are less than 10 samples per averaging period."

   Comment: The Plan focuses on changes to NPDES permits with water quality-based effluent limits (WQBELs). Sampling expectations may be unclear to Municipal stormwater permittees required to monitor water quality for fecal coliform bacteria without WQBELs.

   Recommendation: Please clarify the sentence in **bold** above related to weekly sampling to ensure consistent interpretation. Additionally, appropriate Ecology staff should engage municipal stakeholders as soon as possible to help ensure permittees understand how to plan for the implementation of rule changes such as single or dual indicator monitoring.

5. Page 5, last paragraph, "When the fecal coliform indicator is phased out of the water quality standards, *E. coli* will remain as the sole numeric criteria for determining that this use is met. Ecology will work with the EPA and local watershed stakeholders to determine the appropriate time to change to the *E. coli* indicator. **Dual parameter monitoring of fecal coliform and the updated bacterial indicator may be needed to determine attainment of water contact recreation uses**."

   Comment: It is unclear how the 2-year transition period applies to TMDL monitoring and when dual monitoring will be required.

   Recommendation: Clarify how the 2-year transition period applies to TMDL monitoring and the criteria used to trigger dual monitoring.

6. Page 6, Section: Implementing the New Criteria in the Water Quality Assessment.

   Comment: It is unclear how Ecology will handle de-listing waterbodies (without a nexus to the marine shellfish harvesting use) when the fecal coliform indicator is phased out. Ecology's February 2018 public review draft of WQP 1-11 states on page 30, "In some cases, Ecology will allow alternate indicators of bacteria in freshwater when the data submitter is able to demonstrate that the indicator is an appropriate surrogate. For example, *E. coli* bacteria values can be used to determine non-compliance with the fecal coliform criteria because *E. coli* is a

subset of the group of bacteria referred to as fecal coliforms. For the same reason, however, *E. coli* values cannot be used to show compliance with the fecal coliform criteria."

The Team recognizes there may be various approaches for handling de-listing waterbodies and encourages Ecology to engage stakeholders on this important detail before finalizing the Rule, Plan, and the related WQP 1-11.

Recommendation: Clarify how Ecology will handle de-listing waterbodies after fecal coliform is phased out as an indicator for purposes of compliance with fresh water contact recreation use criteria.

7. Page 6, last paragraph, "after the proposed rule is adopted and the current Water Quality Assessment is completed, the water quality assessment listing policy (Policy 1-11) **may** be updated in consideration of the magnitude, duration and frequency changes to the contact recreation criteria. Potential future updates to Policy 1-11 **may** include the assessment period duration, sample size requirements, and bacterial indicators used to determine impaired waters."

   Comment: Ecology anticipates the Rule will be adopted before the Water Quality Assessment is complete in 2019. The implementation plan indicates Ecology "may" update WQP 1-11 to reflect changes in the proposed rule.

   Recommendation: Clarify how Ecology's WQP 1-11 will be updated to ensure consistency and ease Rule implementation. The Team encourages Ecology to update the February 2018 public review draft of WQP 1-11 to ensure analysis of bacteria data for the current Water Quality Assessment will be consistent with the Rule and WQP 1-11. This includes ensuring consistency for the number of minimum samples required to calculate a geometric mean as well as methods for evaluating data and in making category determinations and de-listing.

The Team appreciates the opportunity to participate in the stakeholder engagement efforts and provide public comment.

Regards,

The Interagency Project Team: staff from the City of Bellevue, Jefferson County, King County, Kitsap County, Pierce County, Snohomish County, Thurston County, and the Washington State Department of Transportation