

April 30, 2020

Department of Ecology
Water Quality Program PO BOX 47600
Olympia, WA 98504-7600
ATTN: Jeremy Reiman

Dear Mr. Reiman,

Pierce County thanks the Washington State Department of Ecology (Ecology) for its continued efforts to update the state's water quality standards for bacterial indicators associated with shellfish harvesting and water contact recreation.

There are concerns regarding some key details associated with new procedures, definitions and other descriptive word choices found within the water quality policy which may result in inconsistent interpretations and affect future Water Quality Assessments.

The County would like to provide the following comments, context and recommendations on the Rule and Plan:

Bacteria - Shellfish Harvesting / WAC 173-201A-210 (2)(b)

1. **Comment** (Pg. 34 – Paragraph 1: The language states “Sampling that solely targets known periods of elevated bacteria levels is not representative of the general condition of an AU, as it may result in an artificially inflated proportion of samples that exceed the criteria. Therefore, Ecology will remove monitoring data from the evaluation when the intention of the monitoring is to target high bacteria levels” but it is not clear how Ecology will make this determination.

Context: Careful selection of representative data is important if two 90th percentile exceedances can result in listing a stream reach. It's possible, even likely, that targeted samples could be included in a bacterial monitoring program as a source identification component, which increases the risk of erroneous listing decisions based on skewed data.

Recommendation: Please clarify how Ecology will determine whether the intention of monitoring data collection is to target high bacteria samples. It is common for routine monitoring and targeted investigative sampling to be done under the same program (i.e. PIC), and it is unclear how the Assessment will differentiate between these purposes when looking at the data.

2. **Comment** (Pg. 34 - Paragraph 2): The term *Assessment Unit (AU)*, while explained in Part 1 Section 1C, does not adequately describe how AU's differ from those developed for freshwater segments constructed under a bacterial TMDL for the protection of downstream shellfish harvesting. Further, it would be helpful to clarify how an AU is determined and delineated when waters “drain directly to” marine waters within a TMDL boundary.

Context: Are freshwater bacterial TMDL segments and freshwater bacterial TMDL *Assessment Units* the same? The Clarks Creek Fecal Coliform TMDL is based on segments that were delineated around prominent outfalls and not tributary confluence-to-confluence points.

It is unclear how far upstream is considered “drains directly to” marine waters within a TMDL boundary? How would this particular upstream type of freshwater bacterial AU be delineated? Would it start from the estuarine confluence and extend upstream to the first tributary or would Ecology calculate its length based upon the freshwater systems flow regime, its upstream bacterial loads and a statistically derived distance-based risk for creating a water quality impairment to marine shellfish harvesting areas? If it’s the latter, how specifically would that determination be made?

Recommendation: Please add further clarification to the term *Assessment Unit* in Part 1 Section 1C and include it in the definitions section, it appears that the current description fails to be comprehensive enough to explain how *Assessment Units* are delineated in all circumstances.

- Comment:** The term *critical period* is defined, however the term *critical condition* is not defined and often used in TMDLs in a manner that implies these terms are interchangeable. This creates confusion.

Recommendation: Please clarify whether the determination of the *critical period* differs from the process for determining the *critical condition*. Please confirm the distinction and/or similarity between these terms and describe how the *critical period* relates to the assessment of freshwater bacterial impairments under a TMDL developed for the protection of downstream shellfish harvesting.

- Comment** (Pg. 34 - Paragraph 4): It is unclear what is meant by “sufficient information”, in the sentences, “Where sufficient information is available, Ecology may also define a specified *critical period or season* in which the criteria must be met for water contact recreation. This time period may be defined through a TMDL study or a seasonal analysis that brackets specific months or seasons in which bacteria levels are more prone to exceed criteria.”

Recommendation: Please clarify what information is used to determine the critical period, whether a season analysis is included and whether one can be developed and used for the water quality assessment outside of an EPA-approved TMDL.

- Comment** (Pg. 35 - Paragraph 3): It is unclear when monitoring may be required for both fecal coliform and E. coli bacterial indicators to determine attainment of both recreation and shellfish harvesting uses. Further, it is not clear how regional TMDL leads will consistently apply their re-evaluation of AUs that have a fecal coliform TMDL.

Recommendation: Clarify when monitoring for both fecal coliform and E.coli is necessary to attain both recreation and shellfish harvest uses and describe how regional TMDL leads will consistently apply their re-evaluation of AUs that have a fecal coliform TMDL.

- Comment** (Pg. 35 - Paragraph 2): It is not clear how Ecology will continue to assess fecal coliform data after 2020 in freshwater where a fecal coliform TMDL was not specifically developed for the protection of downstream shellfish harvest. Further, in reference to Comment # 5, load allocations are not water quality standards against which compliance should be determined.

Recommendation: Clarify what methods will be used to assess fecal coliform data after 2020 where a fecal coliform TMDL was not specifically developed for protection of downstream shellfish harvest use. Also, remove all reference to determining compliance with load allocations.

7. **Comment** (Pg. 35 - Paragraph 3): The policy does not describe how, when consulted, regional TMDL leads will conduct a re-evaluation of AUs that have a fecal coliform TMDL to ensure consistency in practices statewide.

Recommendation: Clarify how regional TMDL leads are expected to re-evaluate fecal coliform TMDLs to ensure they are conducted in a consistent manner statewide.

8. **Comment** (Pg. 37 - Paragraph 1): Given the following sentences, “In some cases, Ecology will retain an AU in Category 4A when the criteria are attained if further work is needed to achieve associated water quality goals. For example, an AU may be meeting criteria, but may not yet be meeting TMDL load allocations necessary to support downstream uses.”

Context: If load allocations (Water Quality Based Effluent Limitations) are not met and water quality standards are achieved, it may suggest that the level of impairment was based on less than credible data, load allocations were inaccurately derived, the reserve capacity was calculated inappropriately, or the measure of safety were set too conservatively. The promise of the TMDL process and the development of sound load allocations is that there is supposed to be a reliable linkage between satisfying the requirements of the LA and the commensurate attainment of the applicable water quality standards. The TMDL concept depends on the scientifically-derived relationship between the numerically expressed load allocations and their promise as an arithmetically calculated pollution diet or quantifiable pathway back to meeting water quality standards in the receiving water.

Recommendation: Please clarify further how Ecology differentiates the attainment of a bacterial LA versus the attainment of the applicable water quality standard.

Bacteria – Water Contact Recreation / WAC 173-201A-200 (2)(b) and 201A-210 (3)(b)

9. **Comment** (Pg. 40 - Paragraph 2): Please refer to Comment 2 regarding the general request for an enhanced explanation of the development and use of the *critical period*, especially when developed outside of a TMDL analysis. This request is made in light of the sentences, “Ecology will group data for each AU by individual water year (October 1 through September 30 of the following calendar year). Within each water year, data will be compared to the criteria in three-consecutive-month periods (i.e., Jan./Feb/March, Feb/March/April, etc.), as well as separately for any applicable *critical period*.”

Recommendation: Refer to the recommendation for Comment #2.

10. **Comment** (Pg. 40 - Paragraph 4): It’s unclear why Ecology references compliance with load allocations under a TMDL when load allocations are not water quality standards subject to rule-making. This is the same concern brought up under comment #'s 5 and 6.

Recommendation: Remove all reference to determining compliance with load allocations.

General Comments:

Natural Background: What are Natural Background sources of bacterial pollution and how will Ecology account for surface runoff from undisturbed areas, natural rates of overland surface runoff, and groundwater influences when making this determination?

Natural Load: How would the Natural Background sources for bacterial pollution differ from calculating the Natural Load for bacterial pollution under a TMDL analysis?

Pierce County sincerely appreciates the opportunity to participate in the stakeholder engagement efforts and provide public comment.

Kind Regards,

Pierce County Surface Water Management