Northwest Pulp & Paper
ASSOCIATION

September 14, 2018

Becca Conklin
Water Quality Program
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Subject: Ch. 173-201A WAC – Primary Contact Recreation Bacteria Criterion

Dear Ms. Conklin:

The Northwest Pulp & Paper Association (NWPPA) offers the following comments on proposed revisions to the primary contact recreation bacteria criteria in Chapter 173-201A Washington Administrative Code (WAC). In addition, on behalf of the forest products industry, the National Council for Air and Stream Improvement (NCASI) completed a technical review of the draft water quality standard revisions. A copy of the Sept. 11, 2018 NCASI memorandum to NWPPA is attached.

NWPPA member mills encompass a variety of wood pulping technologies, wastewater treatment plant technologies and sizes, receiving water types, disposition of on-site domestic sewage, and other features. What is generally common among these facilities, and relevant to the establishment of ambient water quality standards for disease-causing bacteria, are:

- the principal raw material for the industry is wood;
- these facilities utilize secondary wastewater treatment systems;
- there are no primary contact recreation activities; i.e. activities requiring complete submergence, in close proximity to treated wastewater discharge locations; and
- domestic sewage is either treated separately from pulp and paper process waters and with customized NPDES permit treatment and monitoring requirements, or directed to a POTW.

This overview offers the context from which the following comments are offered.

1) WAC 173-201A-200(2)(b) – The sentence “Both bacterial indicators may be used to measure effluent discharge and ambient water quality conditions to determine compliance” should be eliminated.

Discussion – WAC 173-201A is the "Water Quality Standards for Surface Waters of the State of Washington." This regulation should be limited to presenting those ambient water quality standards necessary to protect designated uses. Ecology may certainly determine the appropriate ambient water quality monitoring need to assess attainment of these water quality numeric criteria. But there is no reason for the regulation to wander into addressing an "effluent discharge." Coupling "effluent discharge" and "compliance" could imply an expectation for a monitoring requirement in an NPDES permit. That is a task appropriately left to a Department of Ecology NPDES permit writer and one that will consider unique features of the permittee wastewater characteristics and water quality standards.

2) WAC 173-201A-200 Table 200(2)(b) – It should be understood that the E.Coli and fecal coliform numeric criteria do not apply at the "end of the discharge pipe," but rather at the edge of the designated chronic mixing zone.

Discussion -- Many Department of Ecology-issued NPDES permits for POTWs specify technology-based effluent limits for bacteria equal to the current WAC 173-201A fecal coliform criterion. But note that Ecology's *Permit Writers Manual* offers

> "The point of compliance for the fecal coliform standard is at the boundary of the chronic mixing zone if one is allowed. The design flow for application for the standard is the 7Q10 low flow for flowing freshwater and the 50th percentile current velocity for marine." (Chapter 6, page 178, *Permit Writers Manual* publication no. 92-109, revised January 2015).

We assume this PWM language will define the point of compliance should any bacteria effluent limitations be included in pulp and paper mill NPDES permits. This makes sense as it is extraordinarily unlikely any full immersion recreational contact would occur in an authorized pulp and paper mill mixing zone.

3) WAC 173-201A-200(2)(b)(iv) – This provision allowing for "alternative indicator criteria" should be retained. Elements from the state of Oregon's regulatory approach for addressing bacteria from non-fecal sources should be included in Ecology's *Permit Writers Manual.*

Discussion – The objective of bacteria water quality standards is to limit human exposure to disease-causing bacteria. E. Coli and enterococcus have been shown to have good, but not perfect, correlation with gastrointestinal disease incidence. The relationship between bacteria counts and illness will vary due to numerous factors and there certainly is the possibility of "false positive" results. NWPPA believes it would be appropriate to retain the "alternative indicator criteria" language to provide a regulatory mechanism to address any false-positive situations which might be documented.

This AIC provision could be supplemented with new guidance to be included in Ecology's Permit Writers Manual. The state of Oregon has developed protective, science-based regulatory guidance on this topic (see Summary of Comments and DEQ Responses, Water Quality Bacteria Standards 2016, Oregon Environmental Quality Commission meeting, August 17-18, 2016, pages 24-25, electronic attachment with this letter). While Oregon's model approach is targeting the NPDES permit effluent limit-setting activity, most of the bacteria source evaluation steps would be applicable for a Washington water quality standard "alternative indicator criteria" process. Ecology's inclusion of similar guidance is reasonable and protective of public interest.

4) WAC 173-201A-210(3)(b) Marine primary contact recreation bacteria criteria – Same comment as presented for WAC 173-201A-200(2)(b) above (#1).

5) WAC 173-201A-210(3)(b)(i)(A) – Eliminate this section for same reason as presented for WAC 173-201A-200(2)(b) above (#1).

6) WAC 173-201A-210(3)(b)(iv) – Please re-insert this "alternative indicator criteria" for the reasons presented for WAC 173-201A-200(b)(iv) above (#3).

NCASI technical comments: At our request NCASI provided comments of a technical nature regarding the proposed RWQC revisions in the attached memorandum. Their comments are based on support documents in EPA's 2012 RWQC recommendations, EPA's recently published five-year review of the RWQC recommendations (USEPA 2018) and more than ten years of pulp and paper mill-specific data collection activities in which NCASI has participated. While these data are generally supportive of replacing fecal coliform with *E. coli* water quality standards, there have been implementation challenges specific to the industry. These challenges can be addressed using scientifically-defensible data and tools to identify protective alternate criteria where measured bacteria levels exceed RWQC but fecal sources are not indicated.

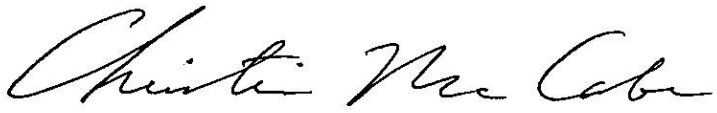
NCASI's comments on Ecology's proposal for RWQC is attached and contains details supporting the findings below.

- The option to develop site-specific alternate criteria in areas with environmental sources of bacteria should be retained.
- *E. coli* appears to be better than fecal coliform as an indicator of the potential presence of human pathogens but is still an imperfect indicator.
- Enterococci criteria can be poor indicators of fecal contamination in some discharges where there are no sanitary sources, but where plant-derived bacterial species are predominant.
- Both *E. coli* and enterococci methods can be prone to interferences due to high background levels of ubiquitous, non-fecal borne bacteria.

- WDOE should consider providing guidance for the collection of multiple discharge samples over a specified time interval if a FIB limit is exceeded to assist in determining permit compliance.

Thank you for the opportunity to offer these comments. I would be happy to answer any questions.

Sincerely,



Christian M. McCabe, J.D.
Executive Director
Northwest Pulp & Paper Association

Enclosures (2)
NCASI memo
Oregon Environmental Quality Commission Bacteria WQS Rule Package, August 2016
See pages 24 to 25. https://www.oregon.gov/deq/EQCdocs/0816ItemI.pdf