King County
Department of Natural Resources and Parks
Wastewater Treatment Division
Water and Land Resources Division
King Street Center, KSC-NR-5600
201 South Jackson Street
Seattle, WA 98104-3855

May 7, 2024

Marla Koberstein
Department of Ecology
Water Quality Program
PO Box 47696
Olympia, WA 98504-7696

RE: Rulemaking - Aquatic Life Toxics Criteria, Chapter 173-201A-240 WAC

Dear Marla Koberstein:

King County (County) supports Washington State Department of Ecology's (Ecology) work to update the aquatic life toxics water quality criteria in chapter 173-201A-240 WAC, Water Quality Standards for Surface Waters of the State of Washington and appreciates the opportunity to comment on the proposed rule.

The County provides wastewater treatment for almost 2 million residents and businesses, manages stormwater for over 250,000 residents, and is progressing on completing Combined Sewer Overflow control by 2030. The County also administers an Industrial Pretreatment Program for the Seattle Metropolitan area, a program that began in 1969 and was one of the first in the country to be approved by the U.S. Environmental Protection Agency (EPA). These services are managed under National Pollution Discharge Elimination System (NPDES) permits with Ecology. The County is also a designated Water Pollution Control Authority under Washington State law.

The County also provides stormwater services throughout unincorporated King County. The Water and Land Resources Division's Stormwater Services Section prevents, detects, and eliminates stormwater pollution sources. Stormwater Services Section also coordinate the County's compliance with state and federal regulations for stormwater management and manage a monitoring program collecting water quality and quantity data. The monitoring program identifies current environmental conditions and tracks changes over time to improve environmental health and water quality in the region.

For nearly 25 years, the County also has served as the convenor and service provider for a coalition of nearly fifty local governments and tribes across three major watersheds to develop and implement the local chapters to the Puget Sound salmon recovery plan. These coalitions have been directly engaged in multiple studies to investigate the rates and potential causes of pre-spawn mortality in salmon, including the study that led to the identification of 6-ppd-

quinone, in addition to addressing total maximum daily loads (TMDLs) for temperature and dissolved oxygen.

As both a regulated entity and a jurisdiction actively managing and protecting water quality and quantity and salmon habitat over an area of more than 2,100 square miles, we have a strong interest in how responsibility for maintaining and restoring these public water resources is shared amongst local, state, tribal, and federal agencies. We are committed to improving the water quality of the region and doing so with the most effective investments.

We support Ecology's overall approach to updating the aquatic life toxics water quality criteria to be consistent with EPA's recommended aquatic life water quality criteria where appropriate. We understand that Ecology is deviating from EPA's nationally recommended aquatic life criteria for specific toxic contaminants that have been determined through Endangered Species Act (ESA) consultations for Oregon and Idaho to result in a "jeopardy" or "likely to adversely affect" determination for certain ESA-listed aquatic species. Ecology used the Biological Opinions issued by the National Marine Fisheries Services and U.S. Fish and Wildlife Services for water quality updates in Oregon and Idaho to determine which toxics this would likely apply to in Washington State. The County appreciates this effort which should decrease the likelihood that ESA consultations would delay acceptance of Washington State's aquatic life criteria updates by EPA.

We offer the following comments on the rule development process and on the updated criteria values because of the potentially substantive implications of establishing new state specific aquatic life water quality criteria:

1. **We request that Ecology include a peer review step in the selection of new science**. When developing criteria based on incorporating new scientific studies, peer review is important for conducting this step. It is best practice for more than one person to review scientific articles and to agree on the data used from the articles or primary source material. We understand the study acceptability criteria were reviewed by EPA headquarters. However, as indicated by Ecology in March 2024 workshop, only one person at Ecology conducted the reviews of the literature, selected the data to use, and calculated the new genus mean values. In addition, it is unclear if an independent quality control check on the data calculations used in calculating the new criteria occurred. We request Ecology include an appropriate level of peer review for new science data used and a quality control check of calculations (if it has not already occurred) before finalizing the criteria updates. Alternatively, we request that EPA perform a peer review of the new science as well as perform a quality control check of calculations when new proposed criteria are submitted to EPA for approval.

2. **We recommend that Ecology consistently apply its metrics for developing criteria using new science.** We understand (per Ecology's Technical Support Document, workshop, and public hearing) that Ecology applied the new science, and the 5th percentile of ranked genus means to cases where the ESA consultation for Oregon or Idaho resulted in "likely to adversely affect." And Ecology used the new science and 1st percentile of ranked genus means (or, in some cases, used 5th percentile of ranked species means) when "jeopardy" was assigned to the criteria. However, we request that Ecology review and confirm the application of those metrics since we observed at least two cases where the 1st percentile was applied when a jeopardy determination was not found in Oregon or Idaho.

   The first case was where no ESA concerns were found for the arsenic acute criteria. In that case, Ecology still adjusted the arsenic acute criteria using a conservative 1st percentile approach. We recommend that Ecology use the EPA nationally recommended acute criteria where no ESA concerns are found and only adjust the chronic criteria where ESA concerns are found.

   The other case was for chromium VI for the chronic freshwater criteria where a jeopardy determination was not found. In this case, per Ecology's methodology, the 5th percentile should be used with new science when setting the criteria, not the 1st percentile. Based on these two cases, we recommend Ecology review and confirm the approach while still following EPA methods when developing state-specific criteria.

3. **We request that Ecology clarify the 6-ppd-quinone freshwater acute water quality criteria and conduct a peer review.** We support Ecology's efforts to establish a freshwater acute water quality criteria value for 6-ppd-quinone, which is an important step to protect coho salmon from the significant toxicity of this compound. We request that Ecology provide more clarity on the derivation of the 6-ppd-quinone freshwater acute water quality criteria and conduct a peer review of the science and methods used.

   For the selected value of 8 ng/L, we do not find a clear linkage between the methods and selected value in the Technical Support Document. For instance, in Figure 7 of the Technical Support Document the x-axis is labelled "stressor intensity" even if it appears to be 6-ppd-quinone concentration. We also would appreciate better understanding how the curve was derived, and the confidence limits. The 8 ng/L proposed criteria concentration appears to be highly dependent on that curve fit. We note the lowest LC5 value in the Technical Support Document is 16.6 ng/L for coho salmon. Thus, we ask that Ecology provide more clarity on the derivation of this criteria.

4. **We support Ecology's approach regarding the copper freshwater criteria.** We support the use of the Multiple Linear Regression (MLR) Model for copper freshwater criteria over EPA's Biotic Ligand Model approach. The MLR model will be more implementable because it requires less complex site-specific data, and the scientific literature indicates the MLR model is just as protective as Biotic Ligand Model.

5. **We support Ecology's approach regarding the perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) aquatic life criteria**. We support the approach to not adopt aquatic life criteria prior to EPA finalizing nationally recommended criteria for PFOS and PFOA

6. **We support Ecology's approach for iron, heptachlor epoxide and hydrogen sulfide.** We support the decision to not adapt EPA's recommended values for iron, heptachlor epoxide and hydrogen sulfide because of insufficient toxicity data.

7. **We recommend that Ecology update Table 240 regarding human health water quality criteria.** We understand that Ecology intends to retain the out-of-date human health criteria values in Table 240 (Toxics Substances Criteria) and add a footnote to cite applicable human health criteria in the federal register. Instead of adding this new footnote (H) noting that human health criteria are contained in 40 CFR 131.45 (effective as of December 19, 2022), we recommend Ecology update the values in Table 240 to be consistent with 40 CFR 131.45. We do not believe this would be considered a revision and the footnote could note they were updated to reflect the December 2022 changes. We believe it will be clearer and more effective to have updated human health values reflected in the table.

If you have questions about our comments, please contact Debra Williston (Water Quality Planner, Environmental Community Services Section, Wastewater Treatment Division) at 206-477-4850 or Richard Jack (Water Quality Planner, Science and Technical Support Section, Water and Land Resources Division) at 206-477-4715, respectively.

Sincerely,

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