Northwest Environmental Advocates

Please see letter attached.

NORTHWEST ENVIRONMENTAL ADVOCATES

May 22, 2025

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Water Quality Program
Washington Department of Ecology
P.O. Box 47600
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submitted through comment portal only

Re: **Proposed Updates to the Washington Water Quality Standards for Natural Conditions Provisions in WAC Chapter 173-201A; Publication 25-10-022, *A Performance-Based Approach for Developing Site-Specific Natural Conditions Criteria for Aquatic Life in Washington (Second Draft)***

Dear Ms. Koberstein:

Following the U.S. Environmental Protection Agency's disapproval of Washington's Natural Conditions Criteria ("NCC") provisions, and having adopted a skeleton rule allowing a so-called performance-based approach to establishing "numeric criteria based on natural conditions that are fully protective of existing and designated aquatic life uses," WAC 173-201A-470(1), Ecology has now embarked on filling in the required details with publication 25-10-022, *A Performance-Based Approach for Developing Site-Specific Natural Conditions Criteria for Aquatic Life in Washington (Second Draft)* (hereinafter "Draft Guidance" or "Guidance"), which it proposes to incorporate into its rule. This document, however, pertains only to marine dissolved oxygen, presumably only triggering WAC 173-201A-470(e) upon the anticipated approval of the rule language and the Draft Guidance by EPA.

In addition to the following more specific comments from Northwest Environmental Advocates and Columbia Riverkeeper, our general observation about this Draft Guidance is that it lacks sufficient details to ensure that it constitutes a transparent, predictable, repeatable, and scientifically defensible procedure from which to derive numeric criteria protective of designated uses, the results of which would not be reviewed or acted upon by EPA, nor would be subject to consultation with the National Marine Fisheries Service and U.S. Fish and Wildlife Service (together "the Services") pursuant to Section 7 of the Endangered Species Act ("ESA"). Instead, the Draft Guidance is more of a superficial checklist of how to build and use a model. For the most part, it is missing the "how" part of guidance. Oddly, Ecology has disregarded much of the EPA's comments on the rule and draft guidance dated July 26, 2024. Another overarching problem is its multiple references to other guidance documents, all of which are subject to Ecology's changing them at any time, thereby changing the meaning of this Guidance, which is supposed to be incorporated into the rule by reference as a binding regulation. And, ultimately,

the described process includes no check to ensure the results are protective of the most sensitive beneficial uses, as required by 40 C.F.R. § 131.11(a)(1), falsely assuming that estimated natural water quality conditions will in all cases protect the designated and existing beneficial uses. In short, Ecology needs to return to the drawing board.

Ecology states in its public comment opportunity announcement that "[i]f the EPA approves the performance-based approach for marine dissolved oxygen, we will consider updating the document again for the other parameters, such as for freshwater temperature." Ecology, *Comment on the draft performance-based approach methods – marine dissolved oxygen* (email) (March 25, 2025). We urge Ecology to not move ahead with using the same superficial guidance for freshwater parameters as it has proposed for marine dissolved oxygen. Ecology also states in this same announcement that "we are committed to holding a public review whenever we use the performance-based approach to develop natural conditions criteria. This will most commonly be through the public review process for water cleanup plans." This is a misleading statement. EPA has made abundantly clear that its review of any such clean-up plans will be pursuant to Clean Water Act ("CWA") Section 303(d) and that it will not review a state's derivation of new criteria in that context because that would be an action pursuant to CWA Section 303(c). A public review without EPA oversight is toothless.

Introduction and Background

Introduction and purpose – page 6

The title of this Draft Guidance and the description in this section allude to a number of fresh and marine water parameters to which the rule and Guidance might apply, despite that the Guidance contains only one chapter, for marine dissolved oxygen. To ensure complete clarity, the Guidance should be properly titled as pertaining to only marine dissolved oxygen, and the material in the introduction pertaining to all other water and parameter types should be stricken. This material should be replaced with a clear statement that the Ecology finalization and EPA approval of this document, following EPA consultation pursuant to the ESA, will render only WAC 173-201A-470(e) valid for CWA purposes and that the other provisions of the rule will remain null and void. Moreover, it is not clear why WAC 173-201A-430(4) makes explicit that "[s]ite-specific criteria are not in effect until they have been incorporated into this chapter and approved by the USEPA," whereas WAC 173-201A-470 makes no reference whatsoever to EPA approval even where, as here, Ecology intends to handle portions of the necessary Guidance in a piecemeal fashion. It's inconsistent, illogical, and unclear.

Regulatory information – page 7

Bizarrely, Ecology explains the role of the EPA approval of criteria and makes zero reference to the concept of "performance-based standards." Why would Ecology not explain that such standards would not undergo the EPA approval process described in the Draft Guidance? Why would Ecology not describe the EPA's rationale for by-passing the requirements of the federal

regulations that are set out in the preamble of the "Alaska rule"? 65 Fed. Reg. 24641, 24648 (April 27, 2000). This is utterly mystifying and unhelpful.

Performance-Based Approach

Overview – page 8

Having failed to explain the regulatory method by which EPA and states can skirt the criteria and standards adoption process described on the previous page of its Guidance, Ecology merely asserts that they can do so. This is certainly unhelpful to any reader not already familiar with the concept of a "performance-based approach." In fact, the reader would be hard pressed to understand such contradictory information.

Ecology then goes on to say that

> Aquatic life water quality criteria values developed using the performance-based approach are applicable to the waterbody upon derivation, so long as all requirements set forth in this document are met.

Draft Guidance at 8. This statement lacks clarity. What does "upon derivation" mean? Who determines that "all requirements set forth in this document are met"? How is all this announced?

Applicability – page 8

Here Ecology observes that the development of so-called natural conditions aquatic life criteria for "other water quality parameters . . . must follow all state and federal rulemaking regulations prior to becoming effective for state and federal CWA actions." Draft Guidance at 8. This implies that the derivation of criteria using the performance-based approach does not need to meet "all state and federal rulemaking regulations prior to becoming effective for state and federal CWA actions." It would be useful for Ecology to enumerate which specific regulations do not apply to such performance-based criteria.

Chapter 1: Marine Dissolved Oxygen

Introduction – page 9

The bald statement that "[w]ater quality models determine the water quality dynamics for marine DO observed at the site of interest under current and natural conditions" is untrue. Water quality models do their best to attempt to identify any parameter or pollutant under natural conditions but, by definition, they cannot entirely succeed in this task because they are models constrained by limited inputs and unable to model the effect of every human impact. Ecology misleads the reader by asserting that the results are "natural" and that anything is "determine[d]," as opposed to estimated.

The remainder of the Draft Guidance describes a ten-step procedure. Ecology fails to explain how this vaguely-defined procedure differs from the one it has used for decades to derive NCC-based purportedly natural superseding criteria in TMDLs, with the possible exception of the comment in the text that "the criteria values must be accessible to the public." Draft Guidance at 9. Please do.

Step 1: Define site boundaries and model domain – Page 9

For this Guidance to be intelligible to the public, the terms should be defined, but there is no glossary nor are the terms defined in the text. For example, the very first sentence in this section contains three terms that one could assume would be unclear to the average reader: "site boundaries, model domain, and model cell resolution." *Id*. at 9. In any event, nothing in this section explains *how* defining the site boundaries and model domain will ensure that only purely natural conditions will be derived. Instead, this section consists of mere observations about the importance of defining site boundaries, model domain, and model cell resolution and that they "must be defined and documented."

Step 2: Compile data – Page 10

Ecology begins this section by stating that "[a]ll existing, readily available, and credible data and information to characterize the site of interest and waters that affect the site of interest must be considered to model current and natural conditions." Presumably the use of the phrase "credible data" means its meaning in RCW 90.48.585. If so, Ecology should say so. But then it should also explain its policies on how its interpreted those regulations. For example, it should explain whether and how its guidance Ecology, *Water Quality Policy 1-11 Chapter 2, Ensuring Credible Data for Water Quality Management* (Sept. 2006, revised July 2021) and Ecology, *Water Quality Program Policy 1-11 Chapter 1, Washington's Water Quality Assessment Listing Methodology to Meet Clean Water Act Requirements* (July 2018, revised March 2023) apply here.

Table 1. Data needs for modeling current and natural conditions. – page 11

Please explain if anything on this table is different from what Ecology would have used under its previously existing NCC criterion from which it would derive superseding criteria. This is nothing more than a partial list of items that would be input into a model on marine dissolved oxygen and, as such, is not helpful information.

Existing, readily available, and credible data – page 12

This section is nothing more than a list of possible data sources, some of which Ecology will use and some of which "may include," leaving their use up to Ecology staff to decide.

Site characterization data – page 13

A mere list, which is what Ecology presents here, is not information from which EPA, the Services, or the public could deduce that the results of choosing site characterization data will be transparent, predictable, repeatable, and scientifically defensible because it does not explain *how* Ecology will use these data and this information. *Id*.

Data timeframe and metadata requirements – page 13

Why be entirely vague if the point of this process is to be transparent, predictable, repeatable, and scientifically defensible?

Data gaps – pages 13–14

Ecology states that "[i]f data gaps are filled using estimates, the process for doing so must be documented and justified," and it mentions some methods by which these gaps could be estimated. *Id*. at 13. Ecology does not explain *how* any kind of data estimated can be said to be predictable and repeatable.

Step 3: Develop A Project Quality Assurance Project Plan – page 14

How does this description of a QAPP provide any more assurance than any QAPP done in previous decades for the development of models to generate purportedly natural conditions pursuant to the NCC for use in TMDLs? It is merely a list that states what the table of contents should be. *See id*. at 14.

Step 4: Collect new data – pages 14–15

This section is premised on the following finding by Ecology: "If Ecology determines that existing, readily available, and credible data are insufficient and will impede estimating natural conditions and the ability to proceed with the performance-based approach[.]" *Id*. at 14. It is not clear how Ecology will make that determination and especially how that determination will be predictable and repeatable.

Step 5: Ensure new data meets quality assurance and control goals – page 15

Step 5 does elucidate one thing: Step 4 apparently applies only to "new field data." *Id.* at 15.

Step 6: Develop and calibrate the model – pages 15–17

This section of the Draft Guidance reads like a primer on how to build a model. Nothing in this section provides any description of how the model will ensure the results are transparent, predictable, repeatable, and scientifically defensible.

Step 7: Evaluating model performance – page 17

The Guidance states that "[m]odel evaluation includes, but is not limited to: sensitivity tests; uncertainty analyses; and evaluation of observed water quality conditions during specified years and simulating the effects of various, alternative nutrient-loading scenarios." *Id*. at 17. But this does not address inputs, assumptions, and how outputs will be handled and therefore does not provide any assurance that the resulting supplanting criteria would be transparent, predictable, repeatable, and scientifically defensible.

Step 8: Estimating Natural Conditions

Introduction – page 17

This subsection does not ensure that the resulting supplanting criteria would be predictable, repeatable, and scientifically defensible, only that they would be documented.

Developing a scenario without human-caused impacts and pollution – pages 17–18

The reader is left without any clear understanding of what, precisely, Ecology will do to address human-caused impacts that are not as clear as zeroing out the discharge of a point source discharging into marine waters, the only example discussed.

Human structural changes – page 18

This subsection merely parrots the existing rules. It does not explain the meaning of "human structural changes that cannot be effectively remedied" that would put the use of performance-based supplanting criteria off-limits, leaving that to the reader's imagination. The result is that its use or prohibition is not transparent, predictable, repeatable, or scientifically defensible.

Required elements – page 18

This subsection lists inputs that "must be accounted for and removed when estimating natural conditions." *Id*. at 18. When Guidance purporting to ensure that a process is transparent, predictable, repeatable, or scientifically defensible does not mention much in the way of details, the value of that guidance is seriously questionable. A list of ill-described items without any direction cannot ensure results that are transparent, predictable, repeatable, and therefore scientifically defensible.

Model outputs – page 19

It is unclear how the:

> The model outputs of the site must:

- Abide by the data and modeling requirements in this performance-based approach chapter, and
- Protect designated and existing aquatic life uses by removing all human-caused impacts and pollution to the water of interest.

Id. at 19. First, there is little in the way of data and modeling "requirements" in this chapter. Mostly there are lists and vague statements. Second, this subsection, while paying lip service to the idea that the resulting criteria must protect designated and existing aquatic life uses, does not state *how* this will occur.

Step 9: Determining natural conditions criteria values

Criteria duration and frequency – page 20

This is a nice subsection in that it contains something specific, namely that the duration and frequency must match those for the biologically-based criteria.

Step 10: Documentation and use – pages 20-21

The reference to documentation should ensure that treatment of natural conditions is not hidden away in appendixes.

Step 11: Does not Exist

There is no Step 11: to determine that the purported natural condition protects the existing and designated beneficial uses. There is very little reference to protecting uses in this guidance and what is there merely assumes that the removal of all human impacts will result in protective criteria. The guidance does not provide that protection. Therefore, there must also be a step in which the results are tested against the hypothesis that natural conditions are acceptable.

Conclusion

Not only has Ecology not tried hard enough to elucidate a procedure that would produce transparent, predictable, repeatable, and therefore scientifically defensible results for dissolved oxygen in marine water, but it proposes that it will use a similar procedure to address other parameters in fresh water. We strongly recommend that Ecology cease its effort to adopt performance-based criteria rules for either marine or fresh water parameters until such time as it is prepared to do much more than write lists of items that might be used in the derivation of such criteria. Finally, and significantly, we observe that Ecology has disregarded much of the EPA's comments on the rule and draft guidance dated July 26, 2024, demonstrating that it would likely not be fruitful for us to provide a more detailed analysis of what we find missing or incorrect in this Draft Guidance.

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Sincerely,

Nina Bell
Executive Director, Northwest Environmental Advocates

/s/Teryn Yazdani
Staff Attorney, Columbia Riverkeeper