May 21st, 2025

Marla Koberstein
Department of Ecology, Water Quality Program
PO Box 47600
Olympia, WA 98504-7600

**Re: Draft performance-based approach methods for site-specific natural conditions criteria – marine dissolved oxygen**

Dear Mr. Donahue:

Washington Forest Protection Association (WFPA) is a forestry trade association representing large and small forest landowners and managers of more than four million acres of productive working forests, including timberland located in the coastal and inland regions of the state. Our members support rural and urban communities through the sustainable growth and harvest of timber and other forest products for U. S. and international markets. For more information about WFPA, please visit our website at [www.wfpa.org](http://www.wfpa.org). WFPA respectfully submits the following comments on the draft performance-based approach methods for site-specific natural conditions criteria for marine dissolved oxygen for Ecology’s consideration.

The performance-based approach (PBA) document needs to include more detail describing how Ecology will approach quantifying climate change within their models. This topic is complex and deserves its own section within the PBA. The method used to quantify climate change should be peer-reviewed by climate scientists.

Additionally, it isn’t appropriate to remove climate change from models created to assess natural conditions. Regardless of historic conditions, climate change is an undeniable aspect of current water quality conditions. Establishing criteria values based on models which have removed the impact of climate change is unrealistic. It can lead to criteria that are unattainable. At a minimum, we ask Ecology to address climate change separately from other anthropogenic impacts such that members of the public can clearly see how it was accounted for and comment on this issue individually. Additionally, climate change should only be assessed in long-term models (i.e., 10-20 years or more). Ideally, Ecology will create a strategy for regulation in a world of changing climate and leave climate impacts out of the performance-based approach. As written, the performance-based approach could easily burden the agency and the regulated community with numerous future use attainability analyses.

The current draft of the PBA does not provide sufficient guidance in the evaluation of available data. The PBA document states that all existing, readily available, and credible data must be considered for use in modeling current and natural conditions but does not define the circumstances in which data might be used or dismissed after consideration. We request that Ecology clarify within the document that all existing, readily available, credible, and relevant data will be used, or provide specific descriptions of why data would be dismissed.

The PBA describes that “freshwater hydrology as it was reflected in a hindcast year modeled may be used”. This is a cause for concern that resulting criteria values could be based on non-representative data. We ask that, as part of the PBA methodology, Ecology demonstrates that freshwater hydrology and meteorology are representative with respect to a minimum of 10 years of data in the tributaries being considered, or reasonably similar tributaries.

Extracting numeric criteria from a model may demand a lot of precision from the model, and not all models are capable of this level of precision. We ask that Ecology expand the PBA document to describe how they plan to account for model uncertainty within the results and final criteria values.

The aggregation method described in the PBA would result in “criteria values for marine DO for each day within the temporal window of the model, each assessment unit, and each depth layer within each assessment unit”. We ask that Ecology add additional details describing how the resulting criteria values would be compared to water quality data, especially if the available water quality data did not include depth, location, or date information.

The PBA process will be quite intricate and time-consuming and has the potential to impact many stakeholders. We believe that Ecology should include more opportunities for public input throughout the process. Following the development of a modeling Quality Assurance Project Plan (QAPP) for a modeling study, the QAPP should be released for public comment prior to Ecology moving forward with the modeling process. It should also be explicitly stated within the PBA that all criteria values and associated documentation will go through public comment prior to use, regardless of the setting in which the PBA was used. Additionally, under the assumption that criteria values will go through public comment prior to use, we ask Ecology to remove the language that criteria are applicable to waterbodies “upon derivation”.

Models created following the PBA should be third-party peer reviewed. Upon receipt of reviews, Ecology should respond to comments, revise models, explain changes made, and make records of such reviews publicly available.

WFPA recognizes that the current draft focuses on modeling marine DO but understands that this methodology will set the precedent for freshwater temperature methodology. As such, WFPA does not find the PBA, as currently written, implementable and urges Ecology to define important details such as climate change impacts, model uncertainty, and public and expert review processes before submitting the PBA to the EPA.

Thank you for the opportunity to comment.



Doug Hooks

Director of Forest and Environmental Programs