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August 11, 2021

Eleanor Ott, PSNGP Permit Writer
Department of Ecology
Water Quality Program
PO Box 47600
Olympia, WA 98504-7600

RE: Puget Sound Nutrient General Permit Comments

Dear Ms. Ott:

Thank you for the opportunity to provide comments on the proposed Puget Sound Nitrogen General Permit (GP) related to waste load allocation for point source discharges in the State of Washington, with the goal being to achieve higher water quality standards for dissolved oxygen in Puget Sound. The ability to interact and enjoy the bounty of our natural resources requires good water quality, achieved by reducing nitrogen inputs to these waters. Regulators, over recent decades, have placed increased scrutiny on nutrient pollution in watersheds throughout the United States. Though nutrients like nitrogen and phosphorous are naturally occurring and necessary to sustain healthy aquatic, estuarine, and marine ecosystems, the District realizes that in overabundance, they can interfere with that health by impairing biodiversity.

Lakehaven Water and Sewer District recognizes Ecology's responsibility to maintain compliance with water quality standards and to address dissolved oxygen (DO) impairment in Puget Sound. The District, however, is concerned about the impacts of implementing new regulatory requirements on the current timeline. Lakehaven supports the timelines proposed by the utility caucus which provide more time for informative science and for fully exploring the effectiveness and costs of nutrient removal technologies. We also support other potential compliance options such as bubble permits or a regional water quality trading program.

Summary Response:

Page 7 Section S1.A: Within the D category, there are still huge differences between the real dominant dischargers discharging in millions of pounds of TIN per years vs. others much less than that. The permit should have a third category for these medium dischargers (less than 500k lbs. /yr., for example). The initial phase of the nutrient reduction should focus on those big dominant dischargers as any reduction of the TIN from those plants would be more significant than the smaller ones. The medium plants can follow the big ones in TIN reduction in the next phase. This will allow these smaller plants more time to be financially ready.

Page 15 Section S4.C.1.a: Most of the medium and small entities don't own the process modeling tool or have staff know how to run it. Development and maintenance of a model requires specialized training. This typically requires use of outside consultants, which could costs upwards of \$25,000/year to meet the requirements here. In addition, it is not necessary to run a model every year for the same

strategy. Modeling predictions are highly depends on the quality and quantity of the data. A lot of permittees only have monthly nitrogen data for 2-3 years, or less. The new sampling requirements in this permit are still not frequent enough to reflect the daily loading fluctuations. All these will affect the accuracy of the modeling results, and causing the results not accurately reflecting the actual plant TIN reductions each year. DOE should allow a range (+/-) of the model predicted results for the expected % TIN removal from the initial modeling assessment and use this range as the evaluating criteria in c below. If the effluent TIN after the optimization is within the range, it is compliant.

Page 15 Section S4.C.1.b, second paragraph: Please define "reasonable" in the permit so it is consistent with and fair for all the permittees, rather than let each individual permittee determine this on their own, as this could result in big differences between utilities.

Page 15 Section S4.C.1.c: This timeline only allows for 4 months from the permit issuance date (assume 1/1/22), which is insufficient time for permittees to select a consultant and have the consultant to develop and calibrate process models and determine appropriate scenarios for implementation. It usually takes 3-4 month for RFP procurement and contracting.

Page 16 Section S4.C.2.b.iii: The models are great for making comparison of options, but the accuracy of said models are dependent on the quality and quantity of the data used for calibration. Further, calibration of said models carries an accuracy limitation, typically up to +/-10%, meaning the actual loads could be substantially higher than predicted by models. Additionally, the effort to compare models on an annual average basis requires dynamic modeling over a 365 day period, which is time consuming and expensive.

Page 17 Section S4.C.3: Source control of nitrogen using non-biological treatment methods is only most effective for high N strength waste in the form of ammonia. Low strength wastes typical of most industrial or domestic sources are typically treated most cost-effectively using biological NDN. This is a complex process to require private entities to complete that may be already located within an existing collection system. It's often not cost effective to allow this, and has seen significant pushback from developers and owner groups and can effectively inhibit growth within cities and often conflicts with cities comprehensive plan/general sewer plan and potentially the state growth management plan.

Page 17 Section S4.D.1.a: The permit is an annual action level, so the exceedance should be on annual basis. Determination of item a will be subjective and dependent on the sampling frequency.

Page 18 Section S4.D.1.e: The timeline for this is very difficult to achieve, proposing 90 days.

Page 18 Section S4.E.2: AKART is extremely subjective and will vary significantly from plant to plant. Also, need to consider what cost implications are from owner to owner.

Page 18 Section S4.E.4: This indicates facility plan level of effort. This, coupled with the requirements from section S4.E.5 below will make this an expensive and time-consuming undertaking. There is concern that there won't be enough consultants specializing in this level of analysis to complete the work for all facilities impacted. DOE should phasing this work by further categorizing the dischargers and let those most dominant dischargers do it first followed by the medium dominant dischargers.

Page 20 Section S4.5.f: Viable timeline from what start date? Development of RFP, or after award for predesign?

Page 26 Section S6.A. Second paragraph: What if permittee collects additional samples at non-compliance point for purposes of process control?

Page 27 Section S6. Table 10: Why are we adding CBOD when NPDES permit already required BOD? Would standard BOD from the NPDES permit be sufficient?

Page 27 Section S6. Table 10: TOC has poor correlation with CBOD. Why is this being monitored?

Sincerely,

John Barton
Wastewater Operations Manager

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