August 16, 2021

Eleanor Ott

Department of Ecology

Ms. Ott:

Thank you for the opportunity to provide comments on the Puget Sound Nutrients General Permit. This letter is on behalf of the Washington Chapters of the Surfrider Foundation, and our grassroots network of aquatic recreational enthusiasts. We are glad to see the Department of Ecology requiring Puget Sound utilities to transition to more protective sewage treatment standards. As you know, many cities and counties have already implemented nutrient-removal technology, from Shelton to Spokane. It's time for all utilities in the region to step up and to do so quickly. Surfrider Foundation is a grassroots coastal conservation organization dedicated to the protection and enjoyment of our ocean, waves, and beaches, for all people, through a powerful activist network. In Washington, this network is composed of community leaders in the Northwest Straits, Seattle, South Sound, Olympia, and Olympic Peninsula chapters, as well as our 500+ statewide members.

Natural sources of nitrogen from the Pacific Ocean, rivers draining forested areas, and background atmospheric deposition contribute to naturally low levels of oxygen in some parts of Puget Sound. Nitrogen is the primary nutrient that drives the growth of phytoplankton in our marine waters. However, sewage treatment plants discharge additional nitrogen into the Puget Sound, which spurs excess algal growth. These algal blooms appear as colorful blotches of green, brown, or orange when viewed from above. Some algal blooms contain phytoplankton species that release toxins into the water which bioaccumulate up the food chain. These Harmful Algal Blooms devastate the local food web in Puget Sound, create serious risks to public health, and can decimate regional shellfisheries.

When algae die and decay, the process robs water of oxygen and worsens ocean acidification. Additional human-caused nitrogen must be controlled, starting foremost with reducing nitrogen and carbon from sewage treatment plants. Sewage treated to secondary levels also discharges pharmaceuticals and other chemicals of concern. Even non-toxic blooms wreak havoc on the local aquatic ecosystem, because when the phytoplankton and the zooplankton that eat them eventually die, the process of decomposition depletes oxygen levels in the water column, creating deadly low oxygen conditions, or hypoxic zones.

Research now confirms that local land-based contributions are a primary driver of marine water quality conditions in some locations of Puget Sound. The 2017 Salish Sea Model demonstrates that while variability exists overall, local nutrient sources significantly contribute to local ocean acidification conditions in certain areas. This is an advancement in our understanding of what drives acidifying conditions at the local level. The 2012 Blue Ribbon Panel on Ocean Acidification reported that

land-based nutrient and carbon reduction programs are critical in addressing ocean acidification, and the 2017 Salish Sea Model shows us just how significant these local actions can be. The model provides new rationale for focusing on state and local nutrient and organic carbon control programs in the fight against ocean acidification.

Chapter 5 of the original 2012 Blue Ribbon Panel report outlines the importance of reducing inputs of nutrients and organic carbon from local sources. Given the impacts of ocean acidification and the multiple benefits of nutrient and carbon source reduction, the Panel recommended enhanced actions to control and reduce local sources. To achieve this, the Panel set forth a two-tier approach for moving forward on nutrient and carbon reductions:

- The first tier (Strategy 5.1) constitutes a set of actions that build on existing programs to reduce nutrient and organic carbon inputs in ways that provide near-term economic and environmental benefits.
- The second tier (Strategy 5.2) recognizes that more stringent controls of nutrients and organic carbon pollutants will be required if additional data confirm that these inputs are contributing significantly to ocean acidification.

Reducing nutrients from WWTPs with this general permit would implement these Blue Ribbon Panel recommendations. Ecology's modeling effort has clearly identified that even highly treated wastewater discharging to Puget Sound and the Salish Sea decreases dissolved oxygen. The effluent still contains significant levels of nitrogen and other nutrients that contribute to low-oxygen events and worsen acidification, creating a cumulatively degraded ecosystem.

Washington Department of Ecology has identified water-quality violations related to low oxygen in 143 designated areas within 39 bays, inlets, and open-water sectors throughout Puget Sound. In recent years Bull Kelp, especially in South Puget Sound, has experienced significant declines and has completely disappeared from specific sites. While a range of stressors are believed to contribute to this decline, nutrients are suspected as a major player by contributing to decreasing water clarity and supporting increased growth of non-native algae. More info in the report from DNR: https://www.dnr.wa.gov/publications/aqr_nrsh_bullkelp_sps_2019.pdf?sinxo

While we want this permit to move forward, we would also like to call your attention to areas of improvement that are needed to adequately protect water quality.

Deadlines needed

We understand that this permit has a 5-year duration. However, we urge you to set deadlines for ultimate implementation of these capital investments by 2030 for the largest discharges. The Nutrient Reduction Evaluation calls on cities, counties, and utilities to provide a timeline for improvements. We are concerned that this lack of clarity will lead utilities to submit plans that extend out to the 2040s,

2050s, and beyond for constructing advanced nutrient removal technologies. Ecology must clearly indicate a more urgent timeline in this permit. Some dischargers have claimed that Ecology has given them no indication that nutrient removal would be required, and we want to avoid a claim of surprise in the next permit term.

Create a "mega discharge" category and require the largest dischargers to do more and more quickly

King County, which serves Seattle with three plants discharging to marine waters, and Tacoma, with two plants, are the largest nitrogen pollution dischargers. Together, they contribute over 70% of the nitrogen load, and they need to move further and faster during this permit term. In fact, both utilities have publicly released analyses and cost estimates clearly indicating that they have already completed the basic planning steps that this permit term requires through the Nutrient Reduction Evaluation. These two utilities need to implement actual reductions in the next five years while also engineering designs for construction by 2030. Given that both have indicated extremely long timelines would be needed to comply, we recommend that Ecology require them to implement sidestream treatment during this permit term to decrease loads as they grow and plan for nutrient technology transitions.

We cannot afford to wait for these utilities to stretch out their obligations further. In contrast, LOTT has implemented nutrient-removal technology for over 25 years. Small communities like Shelton, Sequim, and Oak Harbor have invested in nutrient removal. Pierce County designed its most recent Chambers Creek expansion to bring nutrient removal online without substantial capital improvements because they knew this requirement was coming. We do not want to see Ecology reward the tactics used by King County and Tacoma to avoid timely implementation.

Nutrient load action levels are too permissive

The nutrient load action levels remain far too permissive. Ecology set these at the 99th percentile upper confidence limit of current loads even though no one advocated for this permissive of a statistic. This inadvertently allows tons of nitrogen pollution above safe levels for Puget Sound. We recommend that action levels be based on 75th or 90th percentiles of nitrogen load estimates by each plant.

We are also concerned that Permittees may renegotiate for a higher - but not lower - nutrient action level. Further, the action level compliance assessment should be assessed starting at the inception of the Permit - not in 2023.

Environmental Justice reviews miss Tribal Usual and Accustomed Areas

We appreciate that Ecology has included elements of environmental justice in plant requirements. However, this will not account for Tribal Usual and Accustomed Areas. The waters of Puget Sound are highly connected, and pollution released in one location impacts water quality miles away. Salmon and other aquatic life are subject to pollution throughout their life cycles, from freshwater streams where juvenile salmon spend their earliest life stages, to nearshore environments where they transition to salt water conditions, to the Puget Sound, Salish Sea, and beyond for adult life stages. Furthermore, salmon rely on an intricate food web that is directly impacted by the cumulative effects of Puget Sound discharges. Because the effects of multiple discharges overlap in areas like South Puget Sound, requiring

a discharger-specific evaluation of environmental justice would inadvertently miss these cumulative effects that could have significant harmful impacts to the long-term resources needed to support Tribal Treaty Rights. We encourage you to work directly with Tribes to ensure that the analyses that plants conduct are protective of Tribal Treaty Rights.

With expected population growth of the Puget Sound region, as well as worsening impacts from climate change in the years to come, the time to move forward with this general permit is now, and we urge you to adopt a stronger plan. For far too long, wastewater treatment has relied on the old false adage that dilution is the solution to pollution. We can no longer allow these facilities to add more nutrients to the Sound as our population grows, and in fact, a strict diet to reduce the current nutrient loading is absolutely necessary. We look forward to helping support this effort in the years to come, and working in collaboration with the agency, communities, and elected officials to secure necessary funding to prioritize this important work.

Respectfully submitted,

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