

August 16, 2021

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

Comments on Draft Puget Sound Nutrient General Permit

Ms. Ott:

Thank you for the opportunity to comment on the Draft Puget Sound Nutrient General Permit. Washington Environmental Council (WEC) is a nonprofit, statewide advocacy organization that has been driving positive change to solve Washington's most critical environmental challenges since 1967. Our mission is to develop, advocate, and defend policies that ensure environmental progress and justice by centering and amplifying the voices of the most impacted communities. The Puget Sound program works toward clean water and healthy habitat in the region.

We are glad to see the Department of Ecology requiring Puget Sound wastewater treatment plants to transition to more protective sewage treatment standards now. The population of the Puget Sound region is expected to double by 2070, and more people means more sewage produced. That means now is the time to plan, design, finance, and construct infrastructure improvements to address these known problems, and also future demands that will result from population growth and climate change. Even sewage treated to secondary levels releases significant pollution to Puget Sound and its connected rivers and streams.

As you know, many cities and counties have already implemented nutrient-removal technology, from Shelton to Spokane. The Puget Sound region is far behind other areas with iconic waters, such as Chesapeake Bay and Long Island Sound, in requiring plants to upgrade technology and invest in innovative solutions. It's time for all utilities in this region to step up and to do so quickly. We are committed to working with Ecology, utilities, conservation organizations, and elected officials in state, federal, and local government to figure out how to tackle challenges. As you know, we served on Ecology's Puget Sound Nutrient General Permit Advisory Committee. In that role, we diligently engaged in issues and brought forward solutions for Ecology to consider in the general permit. We continue to meet regularly with dischargers on points of agreement, such as the need for enhanced federal funding of clean water infrastructure, and also on points of disagreement to look for common ground and durable solutions. Finally, we provided comments on the Preliminary Draft Puget Sound Nutrient General Permit.

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 and the people and wildlife that depend on clean water. Please consider these comments as you finalize the first Puget Sound Nutrient General Permit this fall.

Create a “mega discharge” category and require the two largest dischargers to do more and more quickly

King County, which serves Seattle and surrounding areas with three plants discharging to marine waters, and Tacoma, with two plants, are the largest nitrogen pollution dischargers to Puget Sound marine waters. Together, they contribute over 70% of the nitrogen load from sewage treatment plants, and they need to move further and faster during this permit term. In fact, both have publicly announced 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 completing planning, engineering designs, and financing for construction (or by solidifying other approaches to reduce nitrogen pollution loads to Puget Sound) by 2030 and the decades that follow. 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 or innovative wastewater solutions.

We cannot afford to wait multiple decades and continue to increase pollution loads. Until this transition is adopted by both King County and Tacoma, they will continue with plans to increase flow capacity at plants without concomitant reductions in concentrations needed to remain below the action levels. That may or may not include innovative solutions that achieve the same objective of reducing and maintaining lower pollution loads. Both have intensive long-term planning programs underway right now, yet neither has acknowledged that Ecology cannot legally permit increases in nitrogen and carbon loads to Puget Sound. 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.

Both King County and Tacoma can and should identify creative solutions to address current and future wastewater needs, including options that treat sewage as a resource rather than a waste. Climate change is happening, and while the Puget Sound region has considered itself well supplied by water, the reality is that snowpacks, rivers, and groundwater supplies are changing. Drinking water pulled from surface and groundwater sources exits homes and businesses as sewage through piped collection networks. This short circuits downstream water bodies before discharging to marine waters, where it travels southbound toward South Puget Sound. Architecture and civil engineering are embracing community-based designs for the future. Innovative and decentralized treatment also avoids shifting pollution generated by one community to another downstream community. We recommend King County and Tacoma have room for exploring innovative solutions while also moving forward with backup plans based on traditional nutrient-removal technology approaches if they do not identify innovative ways to reduce wastewater loads to marine waters.

King County appears to be seeking alternative compliance pathways that do not decrease their own nutrient loads, and Tacoma appears to have chosen a litigation pathway to block Ecology. However, if we can get them both working toward “how” to do this transition, then we will all be better off, especially given that King County and Tacoma will absorb a significant proportion of future growth. Both have experienced repeated spills from existing sewer infrastructure. The region needs them to figure out how to upgrade and modernize sewage treatment as a core clean water infrastructure need for growing communities.

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 even beyond for constructing advanced nutrient removal technologies or innovative approaches that achieve the same ends. 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, even after extensive public and stakeholder engagement, and we want to avoid a claim of surprise in the next permit term.

Sidestream treatment needs to be brought online sooner

The Draft permit appears to have lost sidestream treatment as a viable short-term option to reduce nutrient loads while plants accommodate population growth in the next five years. While the Nutrient Reduction Evaluations required in the permit will be helpful steps forward, with the caveat that they must include a specific deadline by which dischargers would meet low-nitrogen effluent, this is not a substitute for short-term implementation of actual load reductions. Many dischargers, including King County and Tacoma, already have cost estimates and performance expectations for sidestream treatment. We agree that bringing sidestream treatment online for five years or less may constitute a “stranded asset.” Dischargers have stated repeatedly that it will take them decades to implement large-scale capital improvements. Therefore, Ecology should require the two largest dischargers to invest in sidestream treatment in this permit term. For the remaining Dominant Loaders, they should also bring on sidestream treatment in this permit term unless a discharger can show that capital improvements will be implemented within 10 years.

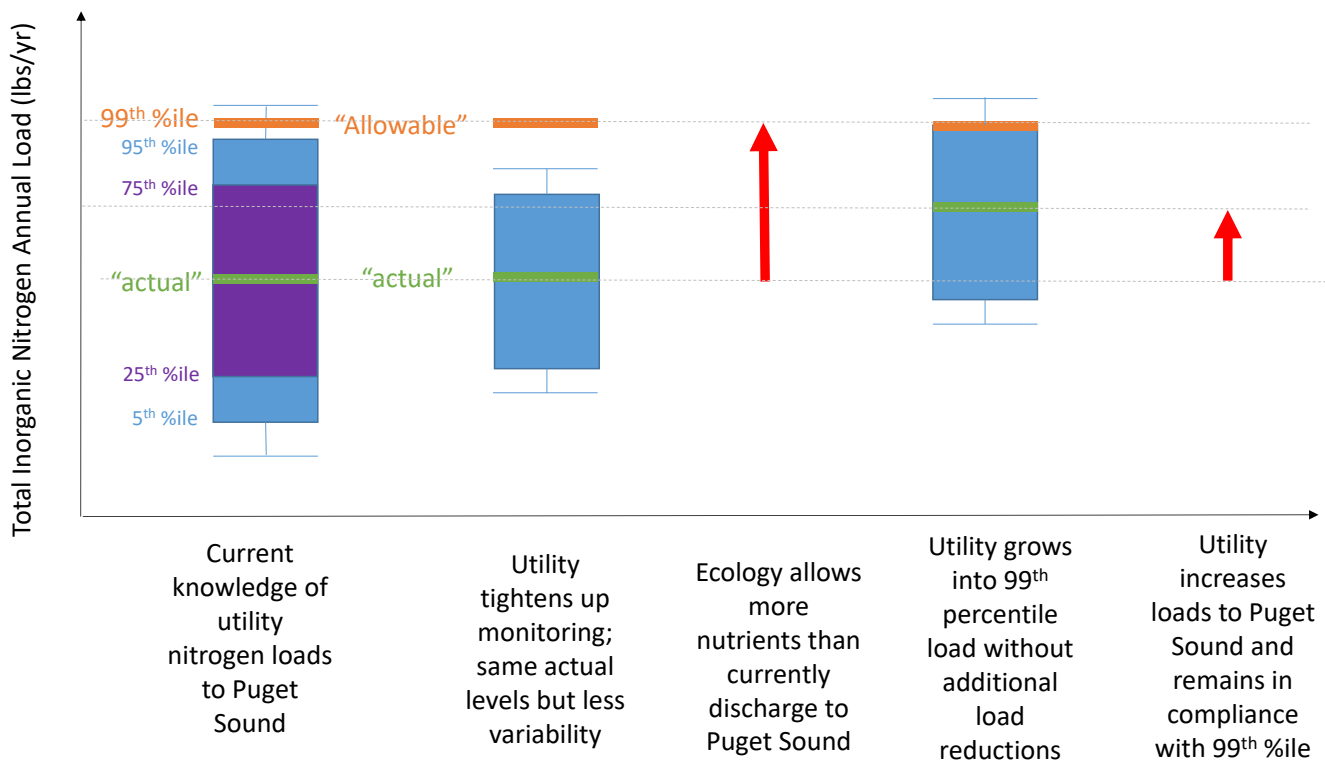
Nutrient load action levels are too permissive

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 during Advisory Committee deliberations. WEC and others specifically recommended against the 99th percentile. This inadvertently allows tons of nitrogen pollution above safe levels for Puget Sound (see figure below) to protect a number that simply triggers planning activities.

We recommend that action levels be based on 75th or 90th percentiles of nitrogen load estimates by each plant.

Annual nutrient loads should be reported as ranges

Ecology used a statistical technique to estimate current loads from individual plants, then applied an unnecessarily permissive 99th percentile upper confidence limit for the single values listed in the Draft Permit. As described above, that inadvertently increases the allowable load to Puget Sound (see figure below). Because an overly permissive statistic was used, we are concerned that when individual plants report their annual loads as lbs/year as a single number, those are highly likely to be under the 99th percentile simply as a matter of statistics. We recommend that Ecology require plants to report annual loads as 5th, 10th, 50th, 90th, and 95th percentile load estimates rather than a single number. Dischargers have stated that they see high uncertainty in the load estimates, and reporting the ranges will improve the information available annually to assess uncertainty.



Ecology should determine AKART, not individual plants

Ecology should not delegate responsibility for determining what represents “reasonable” technology to individual plants. Ecology must maintain the responsibility to determine what constitutes “All Known and Reasonable Technology” or AKART. We are concerned that this sets a poor precedent and will lead to uneven application of this standard.

Environmental Justice reviews miss Tribal Usual and Accustomed Areas

We appreciate that Ecology has included elements of environmental justice in plant requirements. These focus on demographics within sewer service areas, and we fully expect that these reviews will identify disproportionate burdens once utilities begin to look. That will be one important initial step.

However, this requirement will not account for impacts from sewage to Tribal Usual and Accustomed Areas. The waters of Puget Sound are highly connected, and pollution released in one location impacts water quality miles and 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 and on into Puget Sound, the Salish Sea, and beyond for adult life stages. Further, salmon rely on an intricate food web that reflects 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 solely within its land-based service area will inadvertently miss these cumulative effects that likely represent significant harmful impacts to the long-term resources needed to support Tribal Treaty Rights.

We recommend that Ecology work directly with Tribes to ensure that the environmental justice analyses that plants conduct are protective of Tribal Treaty Rights and Usual and Accustomed Areas.

Septage handling needs more nuanced approach

The Draft permit appears to prohibit or allow prohibition of septage handling, which will have the unintended consequence of making routine maintenance of onsite sewage systems and possibly pumpout facilities more complicated and to potentially lead to worse outcomes for Puget Sound. We recommend consulting with utilities like LOTT, which has a storage tank where pumper trucks unload, allowing LOTT to slowly meter the septage into the plant to avoid shock loading.

Permit needs concrete actions that will trigger if WQBELs stall

While Ecology has committed to develop nutrient limits using the Salish Sea Model by 2022, nothing in the current Permit draft commits Ecology to modify this permit, adopt those limits, or implement reductions to achieve those limits on a specific timeline. We recommend that Ecology

include a provision that requires transition to 3 mg/L nitrogen effluent concentrations for all dischargers unless water-quality based effluent limits indicate less-protective technologies will lead to water quality attainment on a reasonable timeline.

Specific comments by section

- S1. Permit Coverage – Add a separate category for Mega Loaders, with King County and Tacoma, as distinct from Dominant Loaders.
- S3. Compliance with Standards – Paragraph B should have sidestream treatment listed since the dischargers consider that distinct from optimization.
- S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads –
 - Add a new similar section for new Mega Loader category. The distinction should be that corrective action in S4.D should be underway during the first permit term for Mega Loaders rather than triggered by the action levels in Tables 5 and 6.
 - In subsection C, if a Dominant plant’s Nitrogen Optimization Report finds negligible improvements due to optimization, then the plant should be required to transition to sidestream treatment right away, in addition to planning for a more complete solution. The reason is that planning, design, financing, and construction could easily require a decade, and during that time discharge volumes will continue to grow. Bringing on sidestream treatment will address the continuing increases in loads during that time period.
 - In subsection C(2)(b) Load Evaluation, permittees should report a range of estimates for annual TIN load, including 5th, 10th, 25th, 50th, 75th, 90th, and 95th percentiles. Dischargers expressed concern at the variability and uncertainty, and providing the range of estimates is a more robust approach. In addition, we recommend that Ecology use a more protective load statistic to compare with the lax 99th percentile used to develop the action levels.
 - Subsection E(2), Nutrient Reduction Evaluation, the NRE should have a completion date of no later than 2030.
 - In subsection E(5)(d), Nutrient Reduction Evaluation – EJ Review – add a new element (v) to identify all Tribes with Usual and Accustomed Areas affected by the plant’s sewage discharge and how Tribal Treaty Rights may be improved as a result of the treatment improvements identified.
- S5. Narrative Limits for WWTPs with Small TIN Loads, subsection B(2)(b) – permittees should report a range of estimates for annual TIN load, including 5th, 10th, 25th, 50th, 75th, 90th, and 95th percentiles.

Retain protective elements in draft permit

In addition to the improvements needed above, we urge Ecology to retain and not weaken a number of positive elements in the draft permit:

- Distinction between Dominant and Small dischargers. The Dominant category accounts for over 99% of the load, including the two largest dischargers, and these utilities rightfully should do more and faster than the smaller dischargers.
- Require all utilities to conduct planning rather than based on triggered loads discussed in earlier stages of permit development. Given the overly permissive numbers, we are worried that load triggers would unnecessarily delay what we already know needs to be done.
- King County's nutrient loads appear more in line with information shared during the Puget Sound Nutrient General Permit Advisory Committee, rather than the elevated numbers in the Preliminary Draft permit. Do not backslide on these values.

In closing, while you may hear false claims that the science is uncertain or that cleaning up sewage will not make a big difference in overall Puget Sound health, please know that we disagree. Now is the time to reduce sewage pollution. Puget Sound, its waters, and the communities that rely on clean water deserve this protection. Finally, Ecology and the State of Washington held the City of Spokane to the same water quality standard and need to upgrade wastewater treatment technology for phosphorus. Ecology needs to ensure that west side communities are held to the same protective environmental standards as east side communities.

Sincerely,



Mindy Roberts, Ph.D., P.E.
Puget Sound Program Director
Washington Environmental Council