



## Washington Association of Sewer & Water Districts

EDUCATE ■ ADVOCATE ■ COLLABORATE

August 10, 2021

Ms. Ellie Ott  
Department of Ecology  
Via online submittal

RE: Comments on proposed Puget Sound Nutrient General Permit

Dear Ms. Ott:

The Washington Association of Sewer & Water Districts (WASWD) represents about 180 public sewer and water districts across the state, with twelve of them being direct dischargers to Puget Sound. Many others send wastewater to treatment facilities in the region operated by entities such as King County or the cities of Everett and Bellingham. The regulations proposed under the Draft Puget Sound Nutrient General Permit (PSNGP) would greatly affect these facility operations and significantly increase costs to our ratepayers. Recognizing its importance, WASWD Government Relations Committee Chair Jeff Clarke served on the PSNGP Advisory Committee, I attended as an alternate, and numerous districts have followed the process closely.

We have reviewed the Draft PSNGP ("the Draft") and accompanying Fact Sheet. In the process we spent considerable time reviewing materials and information about the nutrient issue in coordination with our members and colleagues in other agencies who would be affected by the General Permit. In this letter, we want to express our general concerns with the Draft and with the process utilized to develop it. Detailed comments are listed in an attached Appendix.

Our general comments are as follow:

- The Draft addresses a number of issues which the Advisory Committee was unable to adequately cover due to time limitations and the virtual format. One example is the septage issue. This was barely touched on in the Committee meetings, yet appears in the Draft as fully formed requirements. If treatment plants no longer accept septage, and Ecology does not have a workable plan for where it can be deposited and treated, such materials will increasingly be dumped in outlying branches of the collection system, creating shock loads to Wastewater Treatment Plants (WWTPs.)

- As expressed in the Advisory Committee meetings, the science is incomplete on the nutrient issue. We have not heard a convincing scientific argument that requirements of the General Permit would resolve nutrient problems in Puget Sound. Further, the Draft focuses on WWTPs as if they are the only contributors to the nutrient issues Ecology is trying to resolve. Failing to recognize or address contributions by natural sources and surface water runoff results in a permit that is not commensurate with the level of contribution to the problem and detracts from other solutions that may produce a greater benefit. We understand that the Nutrient Management Plan currently under development, along with additional data collection and modeling, will help advise Total Maximum Daily Loads (TMDLs) for each affected watershed as needed. However, with stormwater monitoring and watershed monitoring well underway in most of the relevant watersheds, estimates on loadings that could lessen the impact of nutrient reduction on WWTPs should be incorporated into this permit.
- The Advisory Committee discussed at great length the fact that WWTPs around the Puget Sound region come in many sizes and with a variety of technologies. Of the 58 facilities to be covered by the General Permit, 80% of the nutrient load from wastewater plants comes from 7 facilities, and 95% comes from barely 20 of the plants. We thought there was general agreement that the smaller plants—those contributing all together less than 5% of the total nutrient load—would be regulated much less stringently than the larger facilities, reflecting both their minimal impact on water quality and their constrained resources to carry out studies and design efforts. Yet the Draft breaks the plants into two groups, with the “small” facilities totaling barely 1% of the total nutrient load, and the requirements for these facilities go far beyond what is necessary or practical.
- Ecology staff continue to treat all effluent the same, without regard for the location of the outfall. All understanding and indications, including maps provided by Ecology, are that smaller embayments are where the Dissolved Oxygen (DO) problems are concentrated. There are strong arguments that societal resources should be focused on facilities that most directly affect those portions of the Sound, but the Draft General Permit makes no attempt to do so.
- Despite our concerns about whether nutrient controls are an appropriate and cost-effective answer, Ecology is requiring operators to double their planning efforts, submitting plans to meet two widely different scenarios at considerable added expense, rather than waiting for TMDLs to be set.
- Ecology is proposing a “General” Permit, yet it is ignoring general, group efforts and requiring similar work to be done by each permittee. For example, the financial and environmental justice studies would more effectively and efficiently be done on a regional basis, but the Permit would require studies from each of 58 permittees.
- Time frames in the Permit are too short for the realities of budgeting, rate increases, engineering and permitting. For instance, jurisdictions must select an optimization strategy by May 1, 2022. Budgets in many jurisdictions are already set for that time period, and hiring consultants, developing, reviewing and choosing a practical strategy will take much more than the 9 months that are now left. Such timelines are strained more than usual due to the fact that agencies are only now emerging from COVID lockdowns, and may be facing budget deficits due to bill collection moratoria.

- There remains a significant question of the appropriateness of using DO standards that are over 50 years old. Better ways of developing such standards have been used on the East Coast, and Ecology cannot justify the science of the current standards. This will be even more relevant as the Nutrient Reduction Plan takes shape, and the Critical Condition aspect of the plan as briefly described on Page 22 of the Fact Sheet comes into play in any attempts to maintain the DO standards year-round. Lower watershed water inputs have always occurred in the summer season, and increasing heat from climate change is now an additional stressor. Water quality standards that do not take this into account will continue to be unmet, despite billions of dollars being spent on nutrient removal.
- As stated previously, our organization sees this permit as setting up conflicts with the Growth Management Act, and existing approved sewer comprehensive plans that were approved with growth capacities that will now be curtailed by this permit. The imposition of building moratoria in a region where housing is already inadequate for demand and growth will rest with Ecology changing the rules mid-stream after assurances of capacity were made.

Our members are committed to their roles as stewards of the environment and public funds. We regret that such an important matter suffered from a rushed and inadequate advisory committee process in the middle of a pandemic. We continue to believe that a more comprehensive evaluation of the nutrient issue would result in more effective and affordable outcomes to protect Puget Sound water quality. This would include:

- closer examination of the science;
- consideration of all nutrient contributions to the problem;
- assessment of the emerging role of climate change on nutrient loadings in Puget Sound;
- review of greenhouse gas impacts of proposed nutrient strategies; and
- cost-benefit analysis of proposed requirements.

Until these information gaps are addressed, requirements resulting in expensive engineering and construction with associated utility rate increases should not be included in a nutrient general permit. To that end, we request that Ecology more appropriately scale permit requirements, especially considering the limitations and pollutant contributions of smaller plants.

WASWD appreciates the opportunity to comment on the proposed permit and Fact Sheet requirements.

Thank you for considering these comments.

Sincerely,



Judi Gladstone  
Executive Director

## APPENDIX

### Following are our specific comments on the Draft Permit:

Page 10: B.1 The text under 1 and that under 1a both seem to do the same thing—require electronic submission. The duplicate text is confusing.

B.2. Please specify the methods for the responsible person to sign electronically. There are several methods that could be utilized, not all of which may be satisfactory from a regulatory standpoint.

Page 11: D We suggest adding “or” as follows: “A permittee anticipating a significant process change due to a corrective action, a reduction in monitoring, or a change in action level, or otherwise requesting a modification of permit coverage, must submit...” Without it, it seems as though you are calling any modification of coverage “a significant process change.”

Page 11 (and elsewhere): In places the subsection numbering continues from the previous section. Note that on this page it happens (D has 3, 4, 5) while on page 2 numbers restart for each section. Also, standard formatting for section A on page 10 would not have a “1” without a “2”.

Page 11: Section S3 A: In line 3, should the first actual word be “and” or “or”? “And” (as written) implies that it is okay to violate two of the three—just not all three.

Page 12: In Section S4 A, line 2 says “...each of the Permittees with dominant TIN [Total Inorganic Nitrogen] loads listed in Table 5...” Please provide a definition of “dominant TIN load”. It is not listed in the definitions in the back. For example, one could argue that the Lake Stevens WWTP (for one example), with a nutrient load of 1.5% that of West Point, and .4% of the total from WWTPs entering the Sound, is hardly a “dominant” contributor.

In the Fact Sheet it states: “This permit mandates more stringent requirements for the dominant loaders (those constituting 99% of the current domestic point source TIN load) due to their contribution to the existing nitrogen over enrichment. Smaller plants, those that discharge less than 1% of the TIN load must also work towards reducing nitrogen in their discharge; however, requirements for these facilities take into account the scale of their contribution.” Thus Ecology holds that the group of plants that constitute 99% of the nutrient loading to Puget Sound are the “dominant” plants. Yet, the last handful of small plants (Blaine, Birch Bay, Snohomish, etc.) included in this group each contribute less than a quarter of one percent of the total nutrient load. Several on the “small” list contribute about a tenth of one percent. It is not logical that the Blaine group get regulated the same as West Point, while similar sized plants are treated very differently.

Page 12: In S4.A the text refers to “bubbled action levels.” A definition or explanation of this concept and how it is to be applied is needed. The Draft mentions “bubbles” several times without addressing the concept in a clear and comprehensive fashion.

Page 14: The “bubbled action levels” appear to be about a 3% reduction from the sum of that jurisdiction’s individual plant totals. The Utilities proposed “bubble permits” to provide flexibility in managing the larger systems, not as a way to require even lower numbers.

Page 15: In a.ii it says, “Develop an initial assessment approach to evaluate possible optimization strategies at the WWTP prior to and after implementation.” Simplifying the text, it reads “Develop an initial assessment approach to evaluate possible strategies prior to and after implementation.” A more precise explanation of what this approach entails would be helpful.

Page 17: All agencies (see also page 24, section 3) are required to develop a septage handling program to reduce nitrogen. This requirement is unwarranted without a rationale or potential methods for reducing the loads. Please see our comment regarding the Fact Sheet, page 44.

Page 18: In E.1 the Permit requires all Dominant facilities “except for LOTT” to prepare a Nutrient Reduction Evaluation. It does not explain why this is not required of LOTT. If LOTT is already meeting nutrient reduction goals, it may not make sense to list it as “Dominant”. What is the threshold for currently meeting nutrient levels, and should there be a third category, such as “meeting levels regardless of size”?

Page 20: In Section S5.A line 2 the text refers to Permittees “with small TIN loads...” The permit does not define what constitutes a “small load.” It implies that loads of facilities in Table 8 are therefore “small” but that does not help today if someone argues that they have a “small load,” nor does it help in the future if a facility reduces its load. Please define what constitutes a “small load.”

Page 20/21: The Draft is unclear on what constitutes a “narrative effluent limit” or “limitations.” The items listed in Table 7 are all “actions”—Monitor, Report, Submit—and not “limits” such as “10 mg/L.” Also, Ecology has not to our knowledge offered examples of what “narrative water quality-based effluents limits” they might propose. But the items listed in Table 7 seem not to fit the bill as described in the NPDES Permit Writer’s Manual (page 6-8).

Page 22: The Draft would require “small” WWTPs to develop a Nitrogen Optimization Plan and Report and an AKART analysis, regardless of how low their current TIN number might be. Elsewhere the Draft allows LOTT to avoid certain requirements because of its current performance. No explanation is given as to the purpose in having a “small” facility with very low TIN be burdened with developing these studies, nor why such plants are to be treated differently than LOTT.

Page 23: Same comment as page 15.

Page 23. Section 1.a.iii states “Determine the optimization goal for the WWTP and apply the assessment.” The meaning is unclear, and it perhaps should read “...apply the chosen optimization strategy.”

Page 23: Section 2—This requires Permittees to “document all adaptive management following initial implementation...” Given that most if not all plants already do “adaptive management” as part of their normal operations, will the General Permit require facilities to document ALL such actions (as it says) or only those related to nutrient reductions? In either case, “all” would be a significant administrative burden, and would open agencies to lawsuits because they did not document a particular action.

Page 24: Item a.i—In many cases it will be impossible (and an administrative burden) to distinguish between implementation costs and normal operating costs.

Page 24: Item b—Clarification is needed as to the time period: are they to evaluate annual loads or monthly loads?

Page 24: Section 3—As stated previously, requiring septage programs begs the question of what these small facilities are supposed to do to manage septage. If forced away from regulated plants, safe disposal of septage is at risk.

Page 24: Item 3.b--Most of the “small” agencies do not have the resources to study ways to reduce TIN from multi-family and commercial buildings, nor do they have the regulatory authority to require such changes in building practices. This is a regional issue, not one for individual facilities.

Page 25: The draft requires “small” facilities, regardless of size, to develop AKART studies by 2025. Given their small sizes, this would involve considerable expense for little positive effect.

Page 25/26: The economic evaluation and environmental justice review required of every small facility should instead be done with a regional study. It would be much more cost effective and develop more usable information.

**Following are our specific comments on the Fact Sheet:**

Page 12: In paragraph 2 there is mention of “narrative effluent limits.” See our comment regarding pages 20/21.

Page 41: The text includes an explanation of the “bootstrapping method” used to calculate action levels. We continue to object to the use of this method. Ecology is using oftentimes limited data sets and generating projections which they believe represent “future observations.” It is meant to “mimic the sampling process” but merely manipulates small

data sets to resemble something more reliable. The process in no way accounts for the possibility of unusual weather or societal conditions.

Page 41: “If there are multiple samples in a period, new data replaces old as best representation for subsequent days in the period.” No explanation is provided for this method. Ecology has selected a method with the intention of massaging small amounts of data to provide justifiable limits, but here when they have additional data points, they would randomly eliminate some of them. Please explain why this moves towards a more accurate assessment.

Page 41: “Some Permittees had only quarterly data which required extrapolation to better represent the variability.” Ecology does not explain how extrapolation “better represents” a facility’s performance. Their method both adds and subtracts data from an already meager data set, without solid reasoning for doing so.

Ecology’s bootstrapping method attempts to set a justifiable maximum nutrient loading level for each facility based on current conditions. We have concerns that it is a faulty method, as stated above. But also, it ignores the possibility that a facility may see significant changes in operating conditions. Abnormal weather is becoming normal. COVID is changing workplaces, shifting flows between locales. Ecology wants no additional loads from individual facilities, even though they permitted facilities with certain capacities. While an understandable goal, it is unrealistic in the world we inhabit.

Page 43: The Draft states that “optimization” is not intended to include actions that “exceed a reasonable implementation cost.” However, every time a facility excludes a “viable optimization strategy” it must provide “an explanation of why the jurisdiction cannot make accommodations to cover these costs through future budgeting adjustments.” The text is setting up endless arguments over what is a “reasonable” cost.

Page 44: The text states that “Plants that do not use an activated sludge process are encouraged to focus more on influent load reductions and effluent management alternatives.” Ecology does not explain how a facility might reduce influent loads. Their mention of diverting septage never includes suggestions about where that material might go, or how doing so might provide overall reductions to nutrients entering waterways. The term “effluent management alternatives” appears to mean (see Page 45) routing effluent into wetlands or into the ground. In the large majority of cases it seems unlikely that effluent can be routed to a wetland site or into the ground without significant capital expenditures. Such actions would undoubtedly require permits from various agencies, and in many cases would likely be controversial with communities, environmental groups, and regulators. Contemplating such actions as long-term solutions may in some cases be reasonable, but as short term “optimization” efforts they do not fit the definition.

We would note that WASWD has been working with the Department of Ecology on limiting use of Underground Injection Control (UIC) wells in proximity to drinking water wells. Wastewater plant operators will not want to exacerbate that problem.

Page 46: What is meant by setting a goal of “improving treatment process efficiencies”? Does this mean reducing the energy or chemical usage required to meet the same TIN?

Page 46: The text states that optimization efforts will “prevent additional nitrogen loading into Puget Sound...” That may be the intent of implementing optimization efforts, but given changing circumstances and growth, it is also possible that the strategies will not keep facilities below their action levels.

Page 46: A facility is unlikely to set a performance metric below the action level. The statement that “Permittees can maintain the optimization strategy implemented provided they met the self-identified performance metric and stayed below the action level” suggests that a facility can meet the action level but be penalized for not meeting a more aggressive performance metric.

Page 47: We are unaware there were listings created for DO in Puget Sound as stated (“The existing **303(d)** listings for DO throughout Puget Sound requires Ecology to prevent additional pollutant loadings that create the impairment.”) Is this a new requirement, or one that has been in place for an extended period of time?

Page 48: In paragraph 4 it says that LOTT does not need to meet certain requirements. The text says that LOTT “already has an effluent limit below 3 mg/L TIN in their individual NPDES permit for TIN during the critical season of April through October.” Are other WWTPs that meet the 3mg/L mark excused from such requirements?

Page 48: As facility operators have previously stated, going through planning exercises without knowing the “final numeric effluent limits” for which they should aim is a costly duplication of efforts. A goal of 3 mg/L (for instance) requires very different technology and site redevelopment than a target of 8 mg/L. The statement, “Completion of a planning exercise during this first permit term is necessary to minimize the time required to ultimately achieve final numeric effluent limits once developed” may be true, but it comes with a significant price tag, including to those who can least afford it.

Page 50: The argument that facilities must meet AKART standards to deal with nutrients is not supported by science that clearly demonstrates that WWTPs around the Sound are causing DO impairment.

Page 50: In Paragraph 5, Ecology is requiring operators to explain the details of their rate structures. How an agency structures its rates is the business of elected commissioners, their staff and customers. Ecology has neither the authority nor the expertise to examine or criticize such decisions.

Page 51: Ecology is proposing rate structures without any experience in the field. There is vague talk about “tiered rate structures” without an understanding of how that might work or if it would be effective. The text also fails to recognize legal constraints agencies work under per state law in setting rates. The PSNGP efforts are likely to have major financial impacts on ratepayers in ways that rate structures cannot adequately mitigate.



Page 52: There is mention that the 30 “small” facilities together contribute less than 1% of the “cumulative domestic point source TIN load into Puget Sound” and that this justifies treating them differently. The Fact Sheet ignores the reality that the seven largest contributors together represent over 80% of the total load, while the other 20 plants in the “dominant” category total just 19% of the load, yet these “mid-range” facilities are treated the same as the largest plants.

Page 61: The text notes that an economic analysis of the impact of the Draft Permit was not prepared because it was not required by State Law. Given that the permit requirements will have significant economic impacts on citizens and businesses, the magnitude of those impacts should be assessed and understood so as to inform the content of the permit requirements.

Overall, the Fact Sheet overlooks the climate impact of permit requirements. Complying with the proposed General Permit will in many cases significantly increase energy use with attendant environmental impacts such as greenhouse gas impacts. This was raised by utility representatives during the Advisory Committee meetings so it especially disappointing that the Draft PSNGP and Fact Sheet do not include consideration of this very important environmental issue.