

**Draft Puget Sound Nutrient General Permit – Pierce County Sewer Division Comments  
August 16, 2021**

Permit Section	Current Language	Comments/Suggested Modification	Impacts and/or Results
<b>General Comments</b>			
General	Submittal requirements associated with the Puget Sound Nutrient General Permit.	The Puget Sound Nutrient General Permit has an excessive expectation for the reporting/documentation associated with the implementation of nutrient reduction. This expectation will create an administrative burden for many utilities and divert resources away from implementation to administrative functions. Nutrients will be one of many regulated constituents, so requiring such an administrative process for one area of treatment will be problematic for many municipalities moving forward. This will ultimately distract the operations away from focusing on their primary objective of meeting water quality goals.	Reduce documentation to a practical level and incentivize forward thinking and proactive investments by utilities.
<b>Section S - Special Conditions</b>			
Table 1. Summary of Permit Report Submittals, pg. 5	Refer to the Special and General Conditions within this permit for additional submittal requirements.	All submittal requirements associated with this permit should be clearly defined under <b>Table 1. Summary of Permit Report Submittals</b> . This should include the submittal that is due (e.g. Annual Reports, Nitrogen Optimization Plan (NOP), Nutrient Reduction Evaluation (NRE), etc.) the frequency, and the first submittal date. This will help avoid the confusion associated with the various reporting requirements within this permit. Permit reporting requirements should be clearly identified with the submittal requirements outlined in the subsequent sections of the permit. With the current structure, the permittee may miss deadlines due to lack of clarity.	Poor structure and lack of clarity on submittal deadlines.

Table 1. Summary of Permit Report Submittals, pg. 5	Discharge Monitoring Reports (DMRs), Monthly, Within 28 days of applicable monitoring period.	The DMR data should be populated using the WQWebPortal as a calculate nutrient values feature. Plants should not have to duplicate the data entry process as part of the data entry portion of the submittal. Also, the language used in the ' <b>First Submittal Date</b> ' column is confusing. The first submittal date should be specified (e.g. January 15 <sup>th</sup> , 2022 or January 28 <sup>th</sup> , 2022) with the frequency being monthly.	Potential for errors due to duplication of data entry
Table 2. Summary of Required On-Site Documentation, pg. 6	List of documents required on-site.	Language should be included to allow for electronic documentation as hard copies quickly become outdated.	Update document language to allow electronic copies
Special Conditions, S1. Permit Coverage, A. Coverage Area and Eligible Discharges, pg. 9	Special conditions S4 lists permit conditions and limits for the WWTPs with dominant (D) TIN loads. Special Conditions S5 list the conditions and limits for the WWTPs with small (S) loads.	The term 'dominant' is not appropriate for classifying larger WWTPs that discharge to the Puget Sound. By definition, the term dominant means most important, powerful, or influential and the opposite of dominant is not "small" but rather weak, characterless, deficient, deplorable. The term 'Largest Loaders' is used within the Fact Sheet and better reflects the situation. Pierce County would propose using 'Largest Loaders' (LL) for large dischargers and 'Smallest Loaders' (SL) for small quantity dischargers.	Change language to accurately reflect the categories of discharges to the Puget Sound.
Special Conditions, S2. Application for Coverage, A. Obtaining Permit Coverage, Section 1, pg. 10	Upon submittal of a complete application for coverage (also called a Notice of Intent or NOI) Ecology will issue a decision on permit coverage pursuant to Special Conditions S2.C.	To improve clarity the current language should be revised as follows: Ecology will issue a decision on permit coverage <i>within 60 days upon receiving a completed NOI application or the permit becomes effective as per section S2.C.</i>	Improved Clarity

<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. pg. 14</p>	<p>Each permittee listed in Table 5 shall develop, implement and maintain a Nitrogen Optimization Plan to evaluate operational strategies for maximizing nitrogen removal from the existing treatment plant to stay below the calculated action level.</p>	<p>Treatment plants that have invested in nutrient reduction infrastructure should have reduced requirements for the Nitrogen Optimization Planning (NOP) process. If a plant is able to reduce nitrogen discharge seasonally to levels near 10 mg/L TIN as well as reducing the annual discharge levels to below the Action Level, TIN lbs/year, the NOP should not be required on an annual basis.</p>	<p>Incentivize forward thinking and proactive utilities</p>
<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. pg. 14</p>	<p>Each permittee must document their actions taken, any action level exceedances, and apply an adaptive management approach at the WWTP.</p>	<p>The term “adaptive management” is used several times throughout the permit and fact sheet but is not clearly defined. Since the permittee must apply the concept of adaptive management, a clear definition should be provided.</p>	<p>Improved clarity</p>
<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 1a. Process Modeling, ii. pg. 14</p>	<p>Develop an initial assessment approach to evaluate possible optimization strategies at the WWTP prior to and after implementation. Update this assessment approach as necessary with each Annual Report.</p>	<p>facilities that have proactively invested in nutrient reduction infrastructure should be exempted from this requirement. A facility that is design for nutrient reduction will not need to holistically change their strategy from one year to the next. These administrative requirements do little to improve plant performance but rather divert resources to provide excessive documentation that will be reflected within the DMR by plant performance.</p>	<p>Reduce documentation to a practical level and incentivize forward thinking and proactive utilities.</p>

<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2.Optimization Implementation. pg. 15</p>	<p>All Permittees in Table 5 must document implementation of the selected optimization strategy (from S4.C.1.c) during the first reporting period in the first Annual Report due March 31, 2023. Permittees must document implementation during every reporting period thereafter.</p>	<p>Similar to above, facilities that have proactively invested in nutrient reduction infrastructure should be exempted from this requirement. A facility that is design for nutrient reduction will not need to holistically change their strategy from one year to the next. These administrative requirements do little to improve plant performance but rather divert resources to provide excessive documentation that will be reflected within the DMR by plant performance.</p>	<p>Reduce documentation to a practical level and incentivize forward thinking and proactive utilities.</p>
---	--	---	--

<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2. Optimization Implementation. pg. 15-17</p>	<p>Optimization implementation – Annual Report Components:</p> <ul style="list-style-type: none"> <li>• Strategy Implementation</li> <li>• Load Evaluation</li> <li>• Strategy Assessment</li> <li>• Influent Nitrogen Load Reduction Measures/Source Control</li> </ul>	<p>Similar to above, facilities that have proactively invested in nutrient reduction infrastructure should be exempted from this requirement. A facility that is design for nutrient reduction will not need to holistically change their strategy from one year to the next. These administrative requirements do little to improve plant performance but rather divert resources to provide excessive documentation that will be reflected within the DMR by plant performance.</p>	<p>Reduce documentation to a practical level and incentivize forward thinking and proactive utilities.</p>
<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 1b, pg. 15</p>	<p>Apply the assessment approach to document the optimization strategies...</p>	<p>The fact sheet states that “Optimization...is the suite of activities that result in improved nitrogen removal...It does not include activities that result in costly upgrades or large capital infrastructure improvements.” This should also be clearly stated in the permit, as many POTWs may be looking at large capital projects to comply with this permit.</p>	<p>Clarity</p>

<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2, pg. 15</p>	<p>...the first Annual Report due March 31. 2023</p>	<p>This due date does not allow a full year of implementation, optimization, and data collection since the first strategy is not selected until May 1, 2022. This can impact the assessment of how the process is performing. For example, if a strategy is selected in May that requires 3 months to implement and troubleshoot, it would not be implemented until September when temperatures are already starting to cool down and bacterial activity decreases. This would leave the fall and winter months to determine effectiveness, and the strategy under these conditions may not perform as well as it could during warmer summer months.</p>	<p>Effective strategy</p>
<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2, a,i pg. 15</p>	<p>Initial implementation costs and costs to operate and maintain the optimization strategy.</p>	<p>There are several references to providing costs for implementation throughout the permit and fact sheet. What information does Ecology hope to gain through this information?</p>	<p>Clarity</p>
<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2, b pg. 16</p>	<p>By March 31 each year beginning in 2023 each Permittee shall review effluent data collected during the previous calendar year to determine whether TIN loads are increasing.</p>	<p>What will the 2022 data be compared to? Coverage under this permit will not begin until the conditions listed in S2.C which is approximately May 2022 and the permittee may not have any prior effluent TIN data with which to compare. This will also skew comparing 2022 with 2023 data since 2022 won't have a complete year of monitoring under this permit.</p>	<p>Reduce documentation to a practical level and incentivize forward thinking and proactive utilities.</p>

<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2, c. iv pg. 16</p>	<p>Document changes made to the optimization strategy, if any. c. If the Permittee proposes no changes to the optimization strategy, it must provide reasons for not making changes.</p>	<p>The permittee should only need to document changes to the strategy if the strategy did not meet the performance metric.</p>	<p>Reduce documentation to a practical level and incentivize forward thinking and proactive utilities.</p>
<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2, C.3 pg. 17</p>	<p>Permittees must develop an ongoing program to reduce influent TIN loads from septage handling practices, commercial, dense residential and industrial sources...</p>	<p>How does Ecology propose POTWs reduce TIN loads from residences?</p>	<p>Unreasonable Request</p>
<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2, D., 1. C. pg. 17</p>	<p>Submit for review a proposed approach to reduce the most recent calculated annual effluent nitrogen load by at least 10%.</p>	<p>Is the intent of this to still use optimization strategies as opposed to implementing large capital projects? Requiring an engineering report will take time and involve unexpected costs for permittees. For the first action level exceedance, selecting an additional optimization strategy as stated in S4.D.1.b seems a more reasonable course of action.</p>	<p>Effective strategy/Unreasonable Request</p>
<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2, D., 1. C. pg. 17</p>	<p>If a permittee exceeds an action level two years in a row, or for a third year during the permit term, the permittee must begin to reduce N loads by implementing...</p>	<p>This approach does not allow the POTW to go through their identified list of optimization strategies and immediately forces potentially more costly measures to be implemented.</p>	<p>Unreasonable request</p>

<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2. Optimization Implementation. C. Strategy Assessment, iv., e. pg. 18</p>	<p>Submit an update to the Permittee's Operation and Maintenance Manual no later than 30 days following implementation.</p>	<p>Operation and Maintenance Manuals are expected to be updated annually as part of the annual report requirements. Requiring this to be done within 30 days is unreasonable as the plant needs should take priority when implementing a new process/strategy.</p>	<p>Unreasonable request</p>
<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2. Optimization Implementation. E. Nutrient Reduction Evaluation, 1. pg. 18</p>	<p>All permittees in Table 5 except for LOTT must prepare and submit an approvable Nutrient Reduction Evaluation (NRE) to Ecology for review by December 31, 2025.</p>	<p>Why is LOTT excluded and not other facilities with nutrient reduction capabilities/infrastructure? This NRE includes a requirement to assess reaching 3 mg/L on both a seasonal and annual average. LOTT is not obtaining this goal as they reduce their TIN only during the summer months. Budd Inlet's water quality is of high concern, so why would other facilities need to go through this effort if it is not necessary in an area with significant water quality impairment.</p>	<p>Unreasonable request</p>
<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2. Optimization Implementation. E. Nutrient Reduction Evaluation, 3. pg. 18</p>	<p>..., and other nutrient reduction opportunities that could achieve a final effluent concentration of 3 mg/L TIN (or equivalent load reduction) on both an annual average and seasonal average basis.</p>	<p>Requiring plants to assess treatment strategies for reducing annual average TIN to concentrations of 3 mg/L is unreasonable and should be removed from the permit. WQBELs should be the driver for assessing advanced treatment capabilities for each system. This type of assessment may never be necessary to be done as the Fact Sheet states, "Consistent with the findings from Mohamedali, et.al (2011), WWTPs contribute a much larger proportion (92%) of the anthropogenic DIN loads to Washington water of the Salish Sea during the <b>low flow season.</b>". Requiring this type of an assessment at this point is unreasonable.</p>	<p>Unreasonable request.</p>



<p>Special Conditions, S4. Narrative Effluent Limits for WWTPs with Dominant TIN Loads, C. Nitrogen Optimization Plan and Report. 2. Optimization Implementation. E. Nutrient Reduction Evaluation, 3. pg. 18 - 20</p>	<p>Nutrient Reduction Evaluation:</p> <ul style="list-style-type: none"> <li>• AKART Analysis</li> <li>• Wastewater Characterization</li> <li>• Influent Nitrogen Reduction Measures/Source Control</li> </ul>	<p>POTWs will not have clear nutrient reduction targets until Ecology is able to establish WQBELs. Going too far down the assessment path before having a target can result in stranded investments. This is especially true for facilities that have invested in nutrient reduction infrastructure and may be able to meet the nutrient reduction/optimization goals during this first permit cycle.</p>	<p>Incentivize forward thinking and proactive utilities</p>
--	--	---	---

S6. A. Table 9. Influent Sampling Requirements for S4 Permittees. pg. 26

Analytical Method and Laboratory Quantitation Level (QL) for Total Ammonia, Nitrate plus nitrite, and TKN include standard methods (SM) **only and the most sensitive QL.**

1. Analytical Methods should follow 40CFR PART 136—GUIDELINES ESTABLISHING TEST PROCEDURES FOR THE ANALYSIS OF POLLUTANTS, Table IB—List of Approved Inorganic Test Procedures, which include EPA methods, Standard Methods (SM), ASTM methods, USGA/AOAC/Other methods.

TABLE IB—LIST OF APPROVED INORGANIC TEST PROCEDURES

Parameter	Methodology <sup>58</sup>	EPA <sup>52</sup>	Standard methods <sup>84</sup>	ASTM	USGS/AOAC/Other
-----------	---------------------------	-------------------	--------------------------------	------	-----------------

**Permittee should be allowed to use any of the approved methods in Table 1B with sufficient sensitivity for compliance.**

2. Laboratory QL should be based on sufficiently sensitive methods, not **most** sensitive method. The justification for mandating ‘most sensitive method’ as explained in Fact Sheet is based on Federal Register 49001, but Federal Register 49001 contains no such requirement.

3. The original language is in Federal Register 49003 with regard to analytical methods, “This rule requires that, where EPA-approved methods exist, NPDES applicants must use **sufficiently sensitive** EPA-approved analytical methods when quantifying the presence of pollutants in a discharge”

4. Suggested Modification:

Under “Analytical Method” for total ammonia, nitrate plus nitrite, TKN, replaced referenced standard methods with “EPA approved methods, as listed in Table 1B of 40CFR Part 136, with sufficient sensitivity”

Under “Laboratory Quantitation Level”, replace the numeric QL for total ammonia, nitrate plus nitrite and TKN with “Corresponding QL for sufficiently sensitive methods”

Unreasonable and Costly Request

<p>S6. A. Table 10. Effluent Sampling. Requirements for S4 Permittees pg. 27</p>	<p>Analytical Method and Laboratory Quantitation Level (QL) for Total Ammonia, Nitrate plus nitrite, and TKN include standard methods (SM) only and <b>the most sensitive QL.</b></p>	<p>1. Analytical Methods should follow 40CFR PART 136—GUIDELINES ESTABLISHING TEST PROCEDURES FOR THE ANALYSIS OF POLLUTANTS, Table IB—List of Approved Inorganic Test Procedures, which include EPA methods, Standard Methods (SM), ASTM methods, USGA/AOAC/Other methods.</p> <p style="text-align: center;"><small>TABLE 1B—LIST OF APPROVED INORGANIC TEST PROCEDURES</small></p> <table border="1" data-bbox="1100 427 1654 472"> <thead> <tr> <th>Parameter</th> <th>Methodology<sup>58</sup></th> <th>EPA<sup>52</sup></th> <th>Standard methods<sup>84</sup></th> <th>ASTM</th> <th>USGS/AOAC/Other</th> </tr> </thead> </table> <p><b>Permittee should be allowed to use any of the approved methods in Table 1B with sufficient sensitivity for compliance.</b></p> <p>2. Laboratory QL should be based on sufficiently sensitive methods, not most sensitive method. The justification for mandating ‘most sensitive method’ as explained in Fact Sheet is based on Federal Register 49001, but Federal Register 49001 contains no such requirement.</p> <p>3. The original language is in Federal Register 49003 with regard to analytical methods, “This rule requires that, where EPA-approved methods exist, NPDES applicants must use <b>sufficiently sensitive</b> EPA-approved analytical methods when quantifying the presence of pollutants in a discharge”</p> <p>4. Suggested Modification:  Under “Analytical Method” for total ammonia, nitrate plus nitrite, TKN, replaced referenced standard methods with “EPA approved methods, as listed in Table 1B of 40CFR Part 136, with sufficient sensitivity”  Under “Laboratory Quantitation Level”, replace the numeric QL for total ammonia, nitrate plus nitrite and TKN with “Corresponding QL for sufficiently sensitive methods”</p>	Parameter	Methodology <sup>58</sup>	EPA <sup>52</sup>	Standard methods <sup>84</sup>	ASTM	USGS/AOAC/Other	<p>Unreasonable and Costly Request</p>
Parameter	Methodology <sup>58</sup>	EPA <sup>52</sup>	Standard methods <sup>84</sup>	ASTM	USGS/AOAC/Other				

<p>S6. A Table 11. Footnotes for Influent and Effluent Monitoring Tables 9 and 10</p> <p>Foot Note b.</p>	<p>2/week means two (2) times during each week and <b>on a rotational basis</b> throughout the days of the week</p>	<p>While it is expected that pollutant loadings to treatment facilities varies from day to day, samplings on a rotational basis is no more representative than an established sampling schedule. Historically, a fixed sampling schedule for other pollutants such as BOD and TSS in individual NPDES permits has been proven to be representative of pollutant loadings.</p> <p>Suggested modification: remove the requirement of sampling on a rotational basis.</p>	<p>Unreasonable and Costly Request - Permittees will likely need to increase staffing level to meet the requirement.</p>
<p>S6. A Table 11. Footnotes for Influent and Effluent Monitoring Tables 9 and 10</p> <p>Foot Note K.</p>	<p>The Permittee must ensure laboratory results comply with the quantitation level (QL) specified in the table</p>	<p>QL for the most sensitive method should be removed</p>	<p>Unreasonable and Costly Request</p>
<p>Special Conditions, S9. Reporting and Recordkeeping Requirements, C. Annual Report for Dominant Loaders, 1. pg. 35</p>	<p>The Permittee must submit their first annual report by March 31, 2023 for the reporting period that begins on January 1, 2022 and lasts through December 31, 2022.</p>	<p>As outlined in S2.C, Permit coverage effective date does not occur until Ecology issues a coverage letter to the applicant, which could conceivably occur as late as May 1, 2022. Does Ecology expect permittees to begin monitoring prior to the general permit effective coverage date?</p>	<p>Clarify</p>