

# City of Everett

1. =>

B. How does the nutrient action level work with the optimization requirement?

"...Any exceedance of either AL0 or AL1 will trigger further action as outlined in Sections V and VI of the preliminary draft proposal."

Comment: Preliminary analysis of Everett's proposed action levels indicate exceedance of the action levels is likely to be driven by weather events. Since exceedance is driven by forces beyond the control of the WWTP's optimization efforts and adaptive management strategy, propose/recommend/request action level triggers for Everett's WWTP be based either on 2 consecutive years of non-compliance (such as the Birch Bay permit effective 3/1/21, section S11. Nutrient Optimization Plan) , or 2 non-consecutive years in the 5 year permit cycle.

2. =>

Text box page 9 "Do reviewers have feedback on whether the 95% UCL or 99% UCL is more appropriate for AL0? Ecology has considered both and would like additional input."

Comment: The 99th percentile statistic for the upper confidence level is preferred. The 99th percentile captures the widest variability in the bootstrap calculations of the mean loading.

3. =>

## IV. Monitoring and Reporting

### A. Monitoring requirements

"...Ecology proposes to require the monitoring schedules shown in Tables 1 - 3, with monitoring beginning one month after the effective date of the proposed general permit."

Comment: One month is a very short timeline to put all the necessary logistical pieces in place to meet the proposed monitoring schedules. WWTP's will face multiple challenges meeting this schedule including hiring additional staff, accreditation for new testing methods, procurement of additional sampling & analysis hardware, development/training/implementation of new testing procedures, and staffing schedules. Propose/recommend/request 3 to 6 months to implement new monitoring schedules.

4. =>

Table 5 ♦ Monitoring schedule: Large treatment plants, > 10 MGD Maximum Month Daily Flow (MMDF)

Comment: The extensive influent nitrate/nitrate (NO<sub>x</sub>) monitoring requirements are unnecessary.

The influent nitrogen loadings are dominated by ammonia-nitrogen and frequent monitoring of ammonia is the priority for characterizing influent loadings. Influent NOx monitoring 4 times per week is unnecessary.

5. =>

Table 5 ♦ Monitoring schedule: Large treatment plants, > 10 MGD Maximum Month Daily Flow (MMDF) footnote B

Comment: 4x/week sampling on a rotating schedule excluding weekends and holidays will be logistically challenging. Propose/recommend/request including holidays and weekends in potential sampling schedules.

6. =>

Text box page 19 "Do reviewers have suggestions on what information permittees use to justify their decision making process when conducting financial and technical analyses to select (or eliminate) optimization strategies?"

Comment: As ecology is noted, each facility is a unique combination of treatment processes, and each utility is a unique combination of financial circumstances. Therefore, it may not be possible and it is probably inappropriate, to try to define a universal financial reference point for utilities to all apply to the selection of optimization strategies. Puget Sound wastewater utilities are all responsible for a variety of compliance requirements, as well as sustaining the asset value of the collection systems, treatment facilities, biosolids management programs etc. and consequently all have different financial circumstances, user charge structures, financing plans, and so on. Decision-making on optimization activities is best left to individual utilities who are in the best position to address their site-specific circumstances.

7. =>

Text box page 20 "Are there any additional Tier 1 optimization actions that should be included in this document?"

Comment: The Tier 1 activities outlined in the preliminary draft provide a broad range of potential concepts for optimization that may, or may not, apply to any individual facility depending upon the existing treatment process and where utility begins to consider optimization. This list is adequate as a general outline and is not necessary to provide more specific or restrictive definitions for what constitutes Tier 1 optimization. That is better left to individual utilities to consider in light of site-specific circumstances. It is recommended that Ecology reconsider including septage handling as a consideration for optimization, since this may have the unintended consequence of discouraging the acceptance of septage and the potential to divert septage loadings to potentially inappropriate disposal that could have deleterious impacts on Puget Sound water quality. Source control, or pollutant minimization planning, may be a more appropriate approach to considering whether or not there is a potential to reduce influent nitrogen loadings. However, it is not clear that there are readily available source control techniques for nitrogen as have been found for phosphorus (e.g. laundry detergents and dishwashing detergent reformulations), although there could perhaps be some unique circumstances where there are industrial contributions of ammonia or nitrogen

compounds that might be reduced.

8. =>

Text box page 21 "Are the tiers broken out appropriately?"

Comment: The question about breaking out the action by tiers suggests that there may be some priority, or serial order, for the bulleted activities listed under each heading. However, it may be inappropriate to suggest that the tiers be broken out in a greater detail because site specific circumstances will actually dictate what is practical to undertake as the Tier 2 action for any given wastewater facility.

9. =>

Text box page 22 "Ecology is soliciting input on what types of Tier 3 actions plants must take to achieve further nutrient reduction, sooner, if they exceed their second action level trigger. Should these actions vary by facility size?"

Comment: The Tier 3 planning requirements are extensive as written and attempting to parse those activities by facilities sizing may further complicate an already complex set of planning considerations. It may be well advised to allow individual utilities of each size to make their own site-specific decisions about what constitutes a practical and feasible Tier 3 action that best fits their facility.

10. =>

Text box page 22 "Do reviewers have feedback on Ecology's proposed use of a standardized form for the annual optimization report?"

Comment: There are both advantages and disadvantages to using a standardized form for the annual optimization report. A standardized format, especially for reporting numerical data on treatment plant performance and loadings, may be advantageous in structuring uniformity that supports a broader analysis of overall Puget Sound loading conditions. The disadvantage of attempting to structure the annual report uniformly is that each utility will be reporting different information depending upon a variety of factors that include their status with regard to the action levels, the tier level of optimization activities they are pursuing, and the great variety of site-specific facilities differences between each facility.

11. =>

Text box page 27 "Aside from treatment solutions, do reviewers have feedback on types of questions a regional study could answer? How could a regional study like this be used to develop and/or support a nutrient trading framework?"

Comment: There are potential advantages and disadvantages to a regional approach for treatment technology assessments. An advantage may be, as noted in the preliminary draft, the ability for multiple utilities to collaborate on the investigation of new or innovative technologies, without repeating the same investigation for each individual utility. In that way technology evaluations may

be shared, and new applications more broadly applied. Regional studies could also explore unregulated compounds in the effectiveness of nutrient reduction technologies in the removal of other constituents.

12. =>

Text box page 27 "Do reviewers prefer one approach to a regional study over the other? Ecology is soliciting specific feedback on how to develop permit requirements for a regional study that advances understanding of treatment upgrades by building on existing bodies of knowledge related to nutrient treatment processes."

Comment: It is not clear what two approaches Ecology is considering? It is also not clear what constitutes a neutral third-party for a technical study of treatment technologies? It is not clear as to whether Ecology seeks a technology evaluation, or an educational process for a collaboration among diverse stakeholders. These may be two separate, or parallel efforts, that are needed to address both technology issues, and separately communication and education issues with the non-technical group of stakeholders.

13. =>

Text box page 27 "Do reviewers have feedback on whether a regional study should be limited to WWTPs < 10 MGD so that larger facilities can conduct their own evaluation? Or, should Ecology provide minimum elements that must be satisfied leaving participation up to each discharger?"

Comment: The regional study could be structured to both receive site-specific input from larger utilities in summary form, with more detail available from their individual evaluations, as well as shared information for smaller utilities to potentially utilize.

14. =>

Text box page 28 "Do reviewers have feedback on the proposed timeframes for this evaluation?"

Comment: Experience from San Francisco Bay suggests that more than 3 to 4 years may be needed to complete a regional study and for Puget Sound it may well take a full permit cycle five years.

15. =>

Text box page 28 "Is there interest in folding this type of treatment technology information sharing into an existing stakeholder process?"

Comment: The existing stakeholder process does not seem to be well suited for technical discussions on treatment technology. It may be more appropriate to share the results of treatment technology studies developed in a separate venue, with the broader stakeholder process.