Electronic comments: http://wq.ecology.commentinput.com/?id=aiK7u

Or mail hard copy to:

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

Subject: Puget Sound Nutrient General Permit Preliminary Draft Comments

Dear Ms. Ott:

The City of Bremerton (City) offers the following comments on the Puget Sound Nutrient General Permit Preliminary Draft, dated January 2021 (draft NGP).

1. The City is concerned regarding specific language that will be used when incorporating Action Levels (ALs) into general and individual permits since this specific language is not presented in the draft NGP. Permit language needs to clearly state that the ALs are not effluent limits but action triggers for an adaptive management approach to optimization. Our concern is that the permit may open the City to lawsuits for permit violations.

2. The draft NGP core structure requires actions to be taken if and when specified AL thresholds are exceeded. Elsewhere, page 28 of the NGP draft states, *"Each facility required to obtain coverage under this general permit has the responsibility to stay within the action level thresholds calculated by Ecology."* This statement suggests the ALs are limits that cannot be exceeded rather than thresholds that trigger response actions. We propose the draft NGP be language be revised as follows, "Each facility required to obtain coverage under this permit has the responsibility take tiered actions if triggered by annual discharges over AL thresholds".

3. The City agrees that 99th percent confidence level is appropriate for defining "baseline" AL_0 discharge load values. However, the 5% growth allowance for all jurisdictions without consideration of regional growth patterns appears arbitrary. Further, we believe the 5% increase for AL_1 is overly restrictive relative to City and broader regional growth projections and is a de minimis difference versus the baseline AL_0. A greater increase to AL_1 is more

appropriate for standard planning and implementation time scales, and consistent with forecast growth projections from our Metropolitan Planning Organization. The Puget Sound Regional Council (PSRC) report "Vision 2050" growth forecast for metropolitan cities within Kitsap County establishes a growth projection by 2036 of 14,000 people (6,500 housing units), and 27,000 people by 2050. Since Bremerton is the only Metropolitan City in Kitsap County, this projection is for Bremerton. Assuming a linear increase to 2036, this projection represents a forecast to add 2.2% to our baseline population each year going forward, which equates to over 400 housing units/year. A cursory review of the current construction trends in Bremerton supports this growth forecast since at this time Bremerton has nearly 800 housing units in production.

It should be noted that this forecast was made prior to the COVID-19 pandemic, with the resulting exponential increase in work-from-home trend that is occurring both locally and nationwide. It is expected that workers in Seattle who had previously not considered commuting to work from Bremerton (with our affordable housing) feasible, will now move to Bremerton. Further, it does not consider potential trends in de-urbanization following the pandemic. Thus, the 5% growth allowance appears to correspond to less than a 3-year horizon for the City. In terms of the ability to stay within AL thresholds, locations such as Bremerton that may receive migration from the urban Seattle core would be at a disadvantage, whereas urban areas would be advantaged by such migration. Overall, the City is concerned that the combination of minimal growth allowance and macroeconomic factors driving growth will lead to compliance challenges.

4. Given the circumstances described above, the City proposes that a 20% increase from AL_0 to AL_1 is more appropriate and represents a meaningful rather than arbitrary and de minimis growth allowance. Based on more specific growth forecasts and observed housing starts, we project our proposed 20% growth allowance to be reached in only nine years. Our proposed growth allowance is comparable to growth allocations in other nutrient discharge management strategies nationwide. For example, regional nutrient discharge management framework used for San Francisco Bay Area Clean Water Agencies (BACWA) allowed for 15% growth over baseline conditions. The City feels that our proposed growth allowance is more appropriate to allow the concurrent pursuit of adaptive optimization actions and nutrient removal planning activities required under the draft NGP. This growth allowance will also enable appropriate time to characterize changes in nitrogen discharge resulting from initial optimization activities.

5. A circumstance unique to Bremerton is the presence of US Navy vessels both homeported and in for repairs at Naval Base Kitsap-Bremerton (NBK-Bremerton). The number of NBK-Bremerton vessels in port can vary and is outside the City's control; additionally, the Navy does not provide specific vessel schedule projections for security reasons. Uncertainty and variability in vessel portage and associated wastewater generation complicates AL management for the City, particularly considering the limited margin between AL_0 and AL_1

as currently structured. Just looking at aircraft carriers (supercarriers), Bremerton is home to one of only two dry docks that can accommodate the world's biggest warships. As an example, the USS Nimitz supercarrier recently returned to Bremerton after a year-long deployment. Ships company for the Nimitz is over 3,500 sailors excluding the air wing. When this ship is in port, the sailors themselves increase Bremerton's population by 8% without accounting for associated family members and/or contractors supporting Navy repair or refit activities related to the Nimitz. It should be noted that the USS Roosevelt (another supercarrier) is scheduled to come to Bremerton in 2021 for an overhaul, and it is very likely that two supercarriers to be sited in Bremerton at the same time. Note that these same issues exist for the other myriad submarines, tenders and supply ships that are stationed at NBK-Bremerton for homeport or repairs.

In order to accommodate the potential for sudden and dramatic changes in population driven by US Navy activities, we request that Ecology's NGP or Bremerton's individual permit allow for provisional AL variances or temporary modifications to account for such population changes outside the City's control. We ask that the permit structure open the door for such temporary modifications, with the mechanistic details to be developed in more detail during permit development. An example approach could involve benchmarking and accounting of Navy base activities and associated transient population changes. The City does not currently track such movements in detail, and the feasibility of such an approach or comparable approach require further development.

6. For treatment facilities such as the City's designed for conventional high-rate activated sludge secondary treatment for BOD and TSS removal only, it is possible that some optimization measures may be able to marginally reduce nitrogen discharges over baseline conditions. However, such optimization measures cannot be reasonably expected to provide full year-round nitrogen removal to meet future water quality-based effluent limits (WQBELs) expected to be in the range of 3 to 10 mg TIN/L as indicated in the draft NGP. Furthermore, we anticipate the City's discharge to Sinclair Inlet falling on the most stringent end of the WQBEL range. Significant facility upgrades will be required to achieve such limits, and associated costs will be orders of magnitude greater than those for optimization efforts. The NGP fails to provide a complete framework and vision for Ecology's proposed WQBEL adoption and compliance schedules. Thus, the NGP provides little opportunity to comment on implications of Ecology's longer-term framework where financial impacts will be greatest. We ask that Ecology provide more specific guidance on the intended WQBEL compliance schedule within the NGP itself or by means of a separate guidance document. The City has not performed engineering and fiscal planning studies to evaluate the cost and rate impacts of anticipated major nitrogen removal upgrades to meet WQBELs, but our expectation is that the compliance schedule would need to be no less than four permit cycles.

7. Based on the draft NGP, Tier 3 actions triggered by exceedance of the 5% growth AL_1 threshold may require "*final design*" of nitrogen removal facility upgrades during the permit

term immediately following establishment of WQBELs. Essentially, this could be five years after issuance of upcoming permit renewals. This potential final design deadline poses a challenge for new technology adoption. Technology testing necessary to reduce risk of new technology adoption may not be feasible within final design deadlines. Further, final design of major nitrogen removal upgrades is a significant level of detail and expense beyond planning studies. The NGP neither establishes nor suggests the required time frame for construction of such nitrogen removal upgrade designs. The lack of clarity on construction and implementation requirements presents a challenge for facilities planning and budgeting. If such upgrades are required within ten years (two permit cycles), the associated costs would present a major disruption to the City's standing budget. Long-term guidance and implementation timelines are needed for the City to begin planning for any potential major nitrogen removal upgrades while keeping rate increases within affordability thresholds. Municipal financing for major capital improvements generally involves debt financing with repayment of loans over a 20-year period. We request that Ecology's NGP state that the WQBEL compliance framework will allow for flexibility and adaptive management of compliance actions and schedules that are screened for established EPA affordability thresholds, fall within such thresholds, allow time for cost-of-service analysis, and accommodate conventional municipal financing durations.

8. The City is concerned that monies spent for facility modifications to meet the proposed ALs may result in suboptimal long-term approaches and use of assets when viewed in context of meeting WQBELs, particularly if WQBEL-based compliance schedules follow immediately on the heels of discharge load cap strategies. We want to be sure that any use of City financial resources to meet nitrogen discharge Action Levels provides long-term benefits and that the associated improvements not be rendered obsolete if treatment requirements dramatically change over short time scales. For these reasons, the City may elect to not implement certain higher-tier optimization steps that may result in sunk assets that do not fit with the City's long-term facilities planning framed by anticipated WQBEL adoption.

9. Ecology uses maximum month design flow as a basis for classifying and defining monitoring requirements. Such a classification tends to push dischargers with combined sewer systems toward the larger range of plant sizes and overstates the annual average flow linked to annual TIN discharge accounting. Specifically, the City's maximum month design flow is 15 MGD whereas current average dry weather flow is less than 5 MGD. We ask that Ecology consider monitoring classifications based on current annual average or dry weather average flow to avoid the inflation from wet weather impacts. Additionally, The City suggests the following changes to monitoring requirements for plants greater than 10 MGD maximum month design flow:

    - Influent NOx-N is typically negligible. Propose changing this sampling frequency from four times per week to optional or once per week.

- Influent and effluent NH_3-N and TKN sampling frequency of four times per week is high in context of annual discharge load action level thresholds (versus averaging bases for shorter time periods such as weekly or monthly averages). We ask that Ecology reduce the sampling frequency to two times per week or consider a new classification for very large plants such as those greater than 20 MGD annual average flow where more frequent sampling may be appropriate.

10. The City appreciates that dischargers will be considered in NPDES permit compliance should effluent limits be exceeded as a result of optimization efforts or pilot studies related to nitrogen reduction. We agree that the possibility for such exceedances exists when testing new technologies and/or operating more aggressively to achieve some degree of nitrogen removal in infrastructure not designed for such purposes.

Sincerely,

Thomas Knuckey Digitally signed by Thomas Knuckey
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Tom Knuckey, PE

Director of Public Works and Utilities