



**MEMORANDUM**

**Date:** MARCH 11, 2021  
**To:** Department of Ecology  
**From:** City of Langley Public Works Advisory Commission  
**Re:** Draft Comments for Puget sound Nutrient General Permit

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**The purpose of this memo is to provide comment regarding the Preliminary Puget Sound Nutrient General Permit for Ecology consideration moving forward.**

The City of Langley Wastewater Treatment Plant; NPDES Permit No WA0020702, has a long history of excellence. We have received the Department of Ecology Outstanding Wastewater Treatment Plant Award 10 of the last 12 years. Department of Ecology Water Quality Section Manager, Mark Henley wrote “the Langley Wastewater Treatment Plant in 2015 demonstrates a prime example of Ecology’s goal for wastewater treatment plants statewide”. In 2017, he stated “The outstanding record of the Langley Wastewater Treatment Plant places it among the top municipal wastewater treatment plants in Washington”.

The current data used to cap the nitrogen discharge in the preliminary Puget Sound Nutrient General Permit clearly shows that since 2016 the City has voluntarily optimized plant operations and successfully reduced nitrogen discharged to the Sound without the unintended consequences of the proposed regulations.

1. The City of Langley feels strongly that the initial permit should apply to the top 80% of discharging facilities. The cost of removal for small facilities like Langley would be much higher per pound of nitrogen removed compared to the large facilities as they can achieve greater economies of a scale. The City believes that the DOE should focus on the large facilities first, to see actual accomplishment of nitrogen reductions and thus increases in oxygen concentration increases. The remaining 20% of facilities should continue with regular and consistent data collection and monitoring. This approach would allow these smaller systems to begin accumulating capital to make adjustments that are known to be necessary.
  - Wastewater discharges contain both carbon and nitrogen as nutrients that contribute to seasonal DO depletion. The model assumes approximately 67 treatment plants discharging into the Salish Sea. The mass loading of these nutrients covers a very broad range – from approximately 50,000 lb/day for the two largest Seattle plants to approximately 10 lb/day for Langley’s plant.
    - Consideration needs to be given to these facilities, like Langley, who have consistently reduced carbon loadings by 98% or more when our permit would have accepted 85% reductions. An exception to the GP should be developed for those communities who have historically had low loadings for carbon and nitrogen, allowing the focus of efforts throughout the Sound on those large dischargers where the reductions will be much more beneficial.
  - Langley already nitrifies and has a very low carbon discharge. Langley may be able to do denitrification, which given the treatment technology employed, would require significant renovation at a considerable cost for minimal nitrogen load reduction.

- Langley could reduce its nitrate discharge loading to 3 lb/day, but this would cost several hundred thousand dollars and would result in increasing effluent carbon loading. There would be virtually no benefit to the Sound. If King Co reduced the nitrogen loading at one of its large plants by 50%, there would be a reduction of almost 10,000 lbs/day, enough to make a significant impact according to the model.
2. The proposed cap will be restrictive in utilizing the remaining capacity of our plant and has the serious potential to limit development. This will be a very expensive hurdle moving forward.
    - The City of Langley is one of three incorporated jurisdictions in Island County. The Growth Management Act dictates that higher density development must therefore be located here. The City continues to amend its zoning codes in order to facilitate more development. At the meeting on 3/5 DOE staff indicated there are inconsistencies between the GMA and Clean Water Act. We suggest that these inconsistencies need to be adequately addressed prior to the adoption of the initial permit in order to provide local governments with clear direction from the State when managing for growth and development.
    - The Langley electorate recently passed a 4-million-dollar bond and was awarded a 3 million dollar grant from Island County, in part to extend sewer service to a neighborhood that was promised sewer service in 1990, and to address infrastructure issues identified in the 2003 Sewer Comp Plan.
    - Over the last couple of years the City planning department has been working with the community to create and amend the code to encourage infill development within the community in order enable the development of more housing and meet the requirements of the GMA. This would also garner additional sewer system connections.
    - Since 2015, the City has been actively working to increase the budget to cover operating costs and save capital to ensure necessary infrastructure improvements can be made. The monitoring requirement alone is a set back to our long-range plans. Planning for expensive optimization that will do little to improve the good quality water that is already being discharged into the Sound is an even bigger disheartening setback for our community.
  3. Water Quality Based Effluent Limits (WQBELs) should be established to determine what optimization is for each facility before each facility is asked to optimize. Section III. Identifies that additional modeling is necessary to quantify water quality effects from discharges, also mentioned is that the process of determining the WQBELs is infeasible. Placing action limits on facilities before the WQBELs are determined is infeasible for rural facilities the size of Langley.
  4. The permit terms are not clear. First and second terms are mentioned but not defined.
  5. Planning Requirements in section B evaluation requirement states that the Nutrient Removal Evaluation is not intended to be an engineering report but requires a Professional Engineers seal. We request that you clearly define the requirements as it appears to be a contradictory and unrealistic expectation without outside funding.
  6. We request that you clearly define what constitutes an exceedance of  $AL_0$  and  $AL_1$ ? Annual average?
  7. In January 2021, DOE issued a preliminary draft of a Puget Sound Nutrient General Permit. The General Permit (GP) would apply to most current discharges for nitrogen, but not carbon. This appears to be a major flaw of the GP. The model has shown that nutrients discharged from domestic wastewater plants contribute to the low DO levels, therefore DOE must require the treatment plants to control nutrients consistent with the Clean Water Act

and WA Water Pollution Control Act. But Carbon is not referenced in the draft GP. The reasoning appears to be that carbon is regulated by the individual NPDES permits.

- The Draft GP does not appear to tie the proposed nitrogen reduction amounts to specific benefits of improved water quality in the Sound. The focus on nitrogen alone would make any effort to improve DO meaningless because failure to reduce carbon loading makes it impossible to evaluate the benefits of nitrogen reductions.

8. Requiring additional sampling and analysis for small systems is not a trivial requirement. There are additional influent and effluent parameters and new analysis equipment proposed that we would have to purchase and install at great expense to our 498 ratepayers.