



Mukilteo Water and Wastewater District

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Water Quality Permit Coordinator
Northwest Regional Office
State of Washington Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452

Subject: Ecology's Preliminary Determination to Develop a Puget Sound Nutrients General Permit

Mukilteo Water and Wastewater District (District) appreciates the opportunity to comment on the Department of Ecology's proposal to prepare a general permit to address nutrient discharges from domestic wastewater treatment facilities (WWTFs). The District is a special purpose district govern under RCW Title 57 serving the town of Mukilteo and Snohomish County Airport (Paine Field). The District operates the Big Gulch Wastewater Treatment Facility which discharges to Puget Sound.

The District takes seriously the health of Puget Sound and its responsibility of protecting it as evidence of consistently receiving the Department of Ecology's Outstanding Performance Award for the Big Gulch Wastewater Treatment Facility. While the District understands Ecology's desire to address lower dissolved oxygen levels in some parts of Puget Sound through a nutrient general permit, the District requests any decision of implementing a general permit take the following into consideration:

Accurate modeling of Puget Sound's existing conditions and the cause and effect relationship of WWTF point source discharge. Puget Sound is a complex ecosystem unlike any other. One cannot simply take a model from another area, make assumptions of point and non-point discharges, make assumptions about Puget Sound flow patterns, flow channels, water depth and numerous other water body characterizes, and expect to accurately understand the cause and effect or relationship between nutrient discharge and dissolved oxygen levels without a substantial amount of real-life testing. Doing so would simply be putting the cart before the horse. A tested and verified Puget Sound specific model is essential if the intent is to truly address and regulate nutrient levels as it relates to dissolved oxygen levels. Before creating a nutrient general permit, the District encourages Ecology to demonstrate through actual real-life testing and verification the accuracy of the Puget Sound model.

Holistic management of nutrients: Prior to establishing a nutrient general permit, the District believes Ecology should take a watershed management approach to better achieve the desired results of increasing dissolved oxygen levels in Puget Sound. For example, point and nonpoint sources of nutrients should be managed concurrently. The artificial boundary created in Ecology's Salish Sea Model should be addressed to understand the need to manage all watershed sources. The many WWTFs with differing treatment technologies and processes, flow and discharge characteristics, current and future influent volume and loadings, and facility improvement plans needs to be taken into account.


Attacking low hanging fruit: Prior to establishing a nutrient general permit that impacts all WWTFs, the District believes certain WWTFs may be clear candidates for pilot nutrient reduction projects due to their large discharge volumes, nutrient effluent loading, or their treatment technology and process. By assisting these facilities in reducing nutrient loading then measuring these improvements against the Puget Sound baseline model, a more effective nutrient reduction program can be established which actually achieves the desired results.

One size does not fill all: The actual impact of nutrient loading from a WWTF on dissolved oxygen levels in Puget Sound is dependent upon many factors including effluent flow volume, effluent nutrient loading, location in Puget Sound, proximity to other WWTF's, and proximity to non-point nutrient loading sources. A nutrient general permit, if and when enacted, should not have a one size fits all limit but be established on a WWTF by WWTF case, or within zones that have been established and tested through the Puget Sound model.

Available technology to remove nutrients: The capability for the many WWTFs to reduce nutrient effluent loading varies from facility to facility with some simply not have the technology or the technology doesn't exist. Rather than establish a nutrient general permit then force WWTFs to comply, Ecology should partner with specific WWTFs that have obvious high nutrient reduction potential and develop pilot projects to evaluate their effectiveness and nutrient reduction potential. Once cause and effect implementation options are evaluated, meaningful and achievable nutrient limits can be established.

Again, thank you for the opportunity to comment.

Sincerely,



Jim Voetberg, General Manager
Mukilteo Water and Wastewater District