ALDERWOOD
WATER & WASTEWATER
DISTRICT

3626 - 156th Street SW • Lynnwood, WA 98087-5021 • 425-743-4605 • 425-742-4562 Fax • www.awwd.com

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William Weaver
Department of Ecology, Water Quality Program
PO Box 47696
Olympia, WA 98504-7696

Subject: Draft Puget Sound Nutrient General Permit Comments

Alderwood Water & Wastewater District (District) appreciates the opportunity to comment on the Department of Ecology's (Ecology) Reissued Draft Puget Sound Nutrient General Permit (PSNGP) and Draft Fact Sheet. Alderwood operates the Picnic Point Wastewater Treatment Facility (PPWWTF) which is a 6.0 MGD treatment facility. Alderwood also contracts with King County and the City of Everett for treatment of wastewater from drainage basins within our service area. Alderwood values environmental stewardship and is committed to our shared responsibility to protect and improve water quality in Puget Sound. The District designed, permitted, built, and operates a state-of-the-art wastewater treatment facility that produces clean effluent that significantly exceeds current permit discharge requirements and staff continue to participate in the nutrient reduction effort to improve water quality in Puget Sound.

The District shares the concerns about water quality in Puget Sound and recognizes Ecology's responsibility to maintain compliance with water quality standards. We appreciate the efforts being taken by Ecology to examine how nutrients contribute to DO reductions. There are many scientific uncertainties associated with the understanding of DO depletions in Puget Sound and the use of the Salish Sea Model (SSM) as a tool to support the proposed regulatory requirements. Though the SSM has continued to make strides, a full understanding of local and regional impacts has not been fully explained. There is an opportunity to update and calibrate the model with the significant amount of data collection over the last few years. The District is concerned about the impacts of implementing new regulatory requirements prior to verifying modeling results with sampling and data analysis or fully exploring the effectiveness and costs of available treatment technology.

This letter provides general comments on the Reissued PSNGP followed by specific comments on the permit and related fact sheet.

The District believes that a general permit is not the appropriate mechanism for this effort due to varying discharge characteristics of the covered facilities, varying permit requirements proposed in the draft permit, and the individual analysis required for each facility as it relates to AKART just to name a few.

As indicated by State and Federal rules as well as text in the draft fact sheet accompanying this draft permit, a general permit is appropriate when the **discharge characteristics are sufficiently similar**, and **a standard set of permit requirements** can effectively provide environmental protection and comply with water quality stands for discharges[1]. The discharge characteristics for the covered facilities are not "sufficiently similar" as can be seen by the fact that this permit separates the dischargers into different categories of Dominate, Moderate and Small based on perceived impact from the discharge. This draft permit also does not set standard permit requirements which can be seen by the varying requirements for each category of discharger including the different action levels, optimization requirements, and reporting requirements as well as the exemption to requirements for an individual discharger.

The fact sheet specifically acknowledges that the AKART provision needs evaluation on a case-by-case basis given its direct ties to economic impact; what constitutes AKART at one facility may be different at the next; and consideration of size differences, available space for expansion, costs of additional treatment, and rate payer considerations must be taken into account. [2] As Ecology has acknowledged, AKART evaluation is an individual evaluation and the outcomes of each individual evaluation will produce varied results in the "reasonable" treatment capacity for each individual facility proposed to be regulated under this general permit.

Ecology is still proposing two permits to regulate a single discharge. In some areas the draft PSNGP duplicates information in the individual permit and in some cases the language in the draft PSNGP conflicts with the individual permit. The language in the draft PSNGP and draft fact sheet is confusing for how/when/if the PSNGP supersedes the individual permit or not. This will lead to misinterpretation. This second permit for the same discharge is not only confusing but it is in direct conflict with the Clean Water Act which does not allow for the issuance of a general permit for the same discharge that has been issued an individual permit.

The action levels proposed for the dominant WWTPs have been based on small subsets of data in some cases and the use of an Ecology developed calculation tool that uses a "bootstrapping" method to calculate the annual load. This process uses randomly generated numbers to add to a data set which is then used to set effluent limitations. This process for setting effluent limits should be reconsidered. The reference in the draft fact sheet for bootstrapping is *Wikipedia,* which is not a legitimate reference for permitting purposes. The reissuance of this permit is an opportunity to Ecology to make improvements to the permit to correct some mistakes made in

[1] Page 12: Draft Fact sheet for the State of Washington Puget Sound Nutrient General Permit
[2] Page 18: Draft Fact sheet for the State of Washington Puget Sound Nutrient General Permit

the original version. There has been significant data collection by dischargers that could be used to create more accurate action levels at a minimum

The Nitrogen Optimization Plan and Report requirements in the draft PSNGP are not clearly described and the optimization (treatment optimization) are not clearly defined. Efforts required to meet the optimization requirement are unclear. The timeline for accomplishing the efforts required are aggressive for meeting the objective of fully evaluating and documenting the success/failure of an optimization effort to meet the reporting deadlines associated with the effort. In many cases, it will take longer than a year (reporting period) to effectively document baseline data, make an optimization change and stabilize the process, collect new data, and evaluate the effects of the effort. It is unclear if an optimization effort can span longer than one reporting period and if it does how that affects compliance with the narrative requirements. As a result, operators may be required to rush through the process to get something to report to meet the narrative requirement, but the effort will have no real value and likely no real positive outcome for Puget Sound.

There was significant discussion and agreement regarding optimization efforts during the PSNGP Advisory Committee meeting. One of the specific topics discussed what would happen if an optimization effort caused an upset and subsequent exceedance of discharge limits in the individual permit for a facility. All parties participating in the discussion agreed that there should be some protection provided to the permittee under these circumstances. This will cause a direct conflict between the two permits for facilities attempting an optimization effort should this effort cause an unanticipated upset to the process that cannot be corrected quickly enough to prevent an exceedance. At least some clarification within the permit language that minor or temporary NPDES limit exceedance can be discussed with the facilities individual permit writers so there is clear direction.

Ecology has proclaimed through its webinars on this reissued permit that an advisory committee will again be put together. We strongly recommend that Ecology allows a 3rd party to oversee this committee, and not have it facilitated entirely by ecology. The last advisory committee process made many utilities feel like their voices weren't heard or wanted. There is some distrust from all parties that will need to be repaired if this next committee is formed and successful. Having a 3rd party facility could be a start to rebuilding that trust.

We strongly feel that whether a permittee decides to volunteer for this general permit, or work through their individual permits, it should not disqualify them from any future nutrient trading, alternative restoration opportunities, or the ability to participate in any future Advisory Committees. This would only hinder the region's ability to reduce nutrients to the Sound. If ecology were to manage discharge limits only in individual permits but allow for a trading program through a general permit, to all dischargers, that may better serve our common and allow for more opportunities for innovative solutions.

Attached you fill find specific comments that reference specific text or sections in the Draft PSNGP and Draft Fact Sheet.

The District cares about water quality in Puget Sound and our region and we have continued to show this by making wastewater treatment decisions that result in discharge of effluent that exceeds permitted requirements. However, this current Draft PSNGP is based on disputed science and data, unrealistic timelines for compliance, unknown cost to water quality benefit, and apparent disregard for the costs to the public. Thank you in advance for your consideration.

Respectfully,

Josiah Hartom

WWTF Manager

Picnic Point Wastewater Treatment Facility

DRAFT PUGET SOUND NUTRIENT GENERAL PERMIT		
Comments from Alderwood Water & Wastewater District		
Page Label	**Permit Section**	**Comment/Question**
8	S4. Table 5	If a permittee exceeds an action level, is it a permit violation?
9	S4. C.	If a facility optimizes for maximum nitrogen removal but exceeds the action limit, what strategy or options remain for that facility since they have presumably exhausted the options?
10	S4. C. 1b (par 2)	How does Ecology define "reasonable implementation costs"?
10	S4. C. 1b (par 2)	Most optimization efforts will take longer than one year from start to finish if the data collection and adaptive management effort is done correctly.
10	S4. C. 1b (par 2)	Dischargers should be able to exclude optimization efforts that could potentially cause a violation of the terms of their NPDES permit(s).
10	S4. C. 1c	Initial sampling and analysis to apply to a developed model to help determine expected TIN removal will take time - This assumes a facility has a model to use. It will take much longer (likely longer than 1 year) if they need to develop a model also.
11	S4. C. 2. a. v.	How will Ecology handle a potential exceedance to an individual permit requirement resulting from optimization efforts?
1218	S4. E. 2. S4. E. 1.	Would this exclude BNR and tertiary treatment? Ecology argued that tertiary treatment was unreasonable and did not fit under AKART. Provide Ecology's definition of "Reasonable" or clarify that the term Reasonable is defined by the Discharger. This exception is an example showing that the permit requirements are not "standard" for all dischargers. This should not be part of a general permit.
1318	S4. E. 3. S4. E. 2.	What is the basis for 3 mg/L here? Provide reference if possible. Would this exclude BNR and tertiary treatment? Ecology argued that tertiary treatment was unreasonable and did not fit under AKART.
1418	S4. E. 5. c. iii. S4. E. 3.	What is the purpose of the request for utility rate structure details? What is the basis for 3 mg/L here?
1419	S4. E. 5. d. ii. S4. E. 5. c. iii.	Why is median household income being used. The lowest incomes will be affected the most by increased costs from nutrient driven capital improvements. What is the purpose of the request for utility rate structure details?
1420	S4. E. 5. d. iv. S4. E. 5. d. ii.	Utility rate structures must be based on cost of service. Please describe and/or provide examples of how alternative rate structures could be applied. What is the basis for "affordability"
15	S5 Table 8	These action levels should be updated. Dischargers have been providing nutrient data while the original PSNGP was being disputed. Those numbers should be evaluated and used to update the action levels in the reissued permit. The "bootstrapping Method" used to create these action levels should also be evaluated to confirm its original exceedance probability was accurate and adjust that calculation if inaccurate.

20	S4. E. 5. d. iii.	Utility rate structures must be based on the cost of service. Please describe how alternative rate structures could be applied.
1723	S5. C.1.cS5. B. 1. a. iv.	Can options that reduce capacity be excluded? If not how will those strategies be evaluated as flows increase to a plant? As plant flows increase, nutrient removal efficiency could decrease. How does Ecology define reasonable? What is a reasonable implementation cost?
1823	S5. C.2S5. B. 1. a. iv.	Most optimization efforts will take longer than one year from start to finish if the data collection and adaptive management effort is done correctly. Can options that reduce capacity be excluded? If not how will those be evaluated as flows increase to a plant?
23	S5. B. 1. a. iv.	Most optimization efforts will take longer than one year from start to finish if the data collection and adaptive management effort is done correctly.
1824	S5. C. 3. a.S5. B. 3.	How would this effect our existing pretreatment program? This item has the potential for requiring additional staffing to evaluate, permit, and monitor. What options have Ecology considered for reducing loads due to septage handling at WWTFs? What programs or controls does Ecology anticipate here - growth moratoriums, zoning restrictions, plumbing code modifications, other??
1924	S5. C. 3. b.S5. B. 3. a.	Current Pretreatment authority does not extend to residential properties. Does Ecology have known and successful strategies for these efforts that facilities can use for consideration? If yes, please provide them. How would this effect our existing pretreatment program? This item has the potential for requiring additional staffing to evaluate, permit, and monitor.
20	S5.E.2	Clarify reasonable as determined by the discharger or provide a definition of reasonable.
20	S5.E.3	Disposal to ground, reclaimed water uses do not reduce the final effluent concentration, it would reduce the total pounds of nitrogen to the sound, which should be the overall goal of nutrient reduction.
24	S5. B. 3. b.	Current Pretreatment authority does not extend to residential properties. Does Ecology have known and successful strategies for these efforts that facilities can use for consideration? If yes, please provide them.
22	S5. E.3.e	Clarify most reasonable “as defined by the utility” or provide definition of reasonable. Or at a minimum, clarify what information is should be used to determine “reasonable”.
2526	S6.B.1S5. C. 3. d. iii.	It should be stated that optimization strategies would be considered temporary if they effectively decrease the treatment capacity of the plant. Utility rate structures must be based on the cost of service. Please describe how alternative rate structures could be applied.
25	S6.B.1.IV	Permittees should be able to exclude any optimization strategy that decreases capacity or is deemed unreasonable to implement do to cost.
25	S6.B.1.b	Document expected %TIN removal **when possible.** Would need a consultant to determine this and it would be a wasted cost when you

		have time to review the results. Requires a model to predict which not all plants have internal access to.
27	S6.C.3.c	It should be noted that there are EPA accepts alternatives to the "Financial Capability Assessment Guidance." That considers real world effects on rates and their impact to ratepayers.
27	S6.C.3.d.ii	Define median household income. Is that a median of the coverage area or state median? Please give guidance.
27	S6.C.3.e	If there is no reasonable treatment alternative for a treatment facility, what is required from the utility to prove that determination. Again, a clearer expectation of ecology's use of "Reasonable" would make things easier to follow.
26	S6.C.3	Can the exemption extend to any small loader that sustains under 10mg/L TIN and shows no **"Significant"** increase? If they are already below 10mg/L and are designated as a small discharger, outside of major capital investment it is very unlikely significant TIN reduction can be made. That capital investment, combined with the small loader amount of flow would be a small return on investment.
28	S7.	If this occurs, would the covered permittees have 2 permits regulating nitrogen discharge?
2833	S7.S7.	This section already exists in our individual permit (Section S7) and this language differs from that in the individual permit. This is another section where there could potentially be violations of 2 permits for the same action or where there could be conflicting requirements due to the different text. If this occurs, would the covered permittees have 2 permits regulating nitrogen discharge?
34	S7.C	Can Small loaders that stay under 10mg/L for the first year, similar to the AKART exemption, have a lowered testing frequency?
33	S8.	This section already exists in our individual permit (Section S7) and this language differs from that in the individual permit. This is another section where there could potentially be violations of 2 permits for the same action or where there could be conflicting requirements due to the different text.
35	S9. B. 5. a.	Does this include additional monitoring for process control? If yes, this conflicts with language in the last sentence of S.6.E.7. "Internal process control parameters are exempt from this requirement". Does this apply if additional monitoring is performed using a test procedure that is a non-accredited method?
41	G8.G7.	Wouldn't this be in the form of a Notice of Intent to reapply following renewal similar to the Biosolids General Permit? Will there be an ability to apply for a future iteration of the permit if a permittee doesn't apply to this reissued permit edition? No leniency for optimization efforts, i.e. PH to the NPDES requirements? There was significant discussion and agreement with the Advisory Committee to provide this leniency during optimization efforts. Language covering this was included in the original preliminary draft and was removed

		and tightened to be a violation in this draft. Please explain the reasoning.
41	General Terms and ConditionsG8.	Several of the general conditions included in this permit are similar to those found in individual permits. However, the text is not always the same. These could be conflicts and duplicate violations. Wouldn't this be in the form of a Notice of Intent to reapply following renewal like the Biosolids General Permit?
41	G10.	Several of the general conditions included in this permit are similar to those found in individual permits. However, the text is not always the same. These could be conflicts and duplicate violations.
48	Appendix A - Definitions	Several definitions in this draft PSNGP are different than the definitions of the same words in our Individual permit (specifically AKART, Best Management Practices, NPDES, TMDL to name a few). Why? What implications are there to the individual permit as a result of the differences?

DRAFT FACT SHEET FOR THE STATE OF WASHINGTON PUGET SOUND NUTRIENT GENERAL PERMIT		
Comments from Alderwood Water & Wastewater District		
Page #	**Paragraph Reference**	**Comment/Question**
14	Par 2 Last Sentence related to electing to use individual permit	Staggering permits has its benefits. Staggering capital improvements allows for more targeted funding efforts that will improve water quality faster and likely for a better value in terms of dollar per lb. of nitrogen removed. Staggering capital improvements will also decrease the demand on the limited number of contractors in the region, resulting in better project costs to the ratepayers.
15	Par 3 related to prioritizing permit reissuance…	Please provide a projected schedule for addressing the current permit backlog for administratively extended permits.
19	SEPA COMPLIANCE: exemption	This SEPA exemption is acknowledging that this PSNGP is regulating the same discharge as the individual NPDES permit.
20	PERMIT LIMITS Par 2 last sentence	Would this exclude BNR and tertiary treatment? Ecology argued that tertiary treatment was unreasonable and did not fit under AKART.
20	WQBELs Par 2 sentence 2 "infeasible"	Explain how numerical effluent limits are infeasible. Ecology has already indicated that they will be proposing numeric limits in the near future which acknowledges that they are feasible. BMPs are not appropriate under this CFR.
20	WQBELs Par 2 sentence 3 re: permit conditions	Ecology has acknowledged that the proposed BMPs are not designed to meet water quality standards but are an attempt to prevent the conditions from worsening.

		Explain how issuance of these BMPs meets the intent of the CFR.
18	Last Par re: 303(d) comment	Ecology should regulate nutrient discharge in individual permits.
21	Last Par re: AKART provision needs evaluation on "case-by-case basis…"	This paragraph acknowledges Ecology's understanding that this in an individual evaluation and effort that will produce varied results. This is more appropriate in an individual permit.
26	Par before Table 3	The scientific basis for the .2mg/L DO depletion limit has yet to be provided by ecology. Ecology's should provide the scientific basis and how it applies to aquatic life.
26	First Par directly below Table 3. re: DO standards	Please identify which requirement(s) in this permit are "based on attaining the numeric marine DO criteria"?
28	History of DO Impairments and Investigations	Would be worth noting the changes in the oceanic nitrogen inputs over time for transparency. Its noted as the highest load but has that load been trending in any direction?
32	Par 3 re: "…permitting authority make the determination…"	Please explain how Ecology came to this determination. If the SSM was used in this determination, please explain how it has the precision to predict this.
33	Par 2 re: Ecology use of optimization scenarios	Ecology should use the TMDL process if the goal is to issue waste load allocations.
33	Puget Sound NRP Par 1 re: Use of NRP to address reduction of human nutrient sources	Can ecology include some examples of how alternative restoration plans could achieve the water quality goals more quickly. Point to other regional or national alternative restoration plans that may be relatively applicable to the situation we face in the Puget Sound.
34	AUTHORITY TO INCLUDE NON-NUMERIC WQ BASED LIMITED First Sentence	Explain how numerical effluent limits are infeasible. Ecology has already indicated that they will be proposing numeric limits in the near future which acknowledges that they are feasible.
35	RATIONALE FOR NON-NUMERIC WQBEL Last sentence that carries to page 33	Please explain how the model runs to date specifically show the impact of specific individual discharges in other areas and where those effects can be seen.
35	Last Paragraph	Shouldn't this be rewritten as if a new permit? Reference 2021 as if it is in the future. Also this is an opportunity for Ecology to confirm those dates were met.
35	Par 2 Final Sentence "In a receiving water as complex as Puget Sound…"	This works should be completed prior to issuance of permits or action limits
36	Par 3 Sentence 1 re: "…optimize existing treatment and begin planning for the future."	This statement implies that POTWs are not already planning for the future.
36	Last Paragraph	Given that small loaders represent 1% of the anthropogenic load, why make them go through the AKART analysis at all? Seems like an unnecessary cost to

		smaller utilities that may already be overburdened. What does Ecology believe they can get out of this? Let say each small loader is able to optimize a 10% reduction in TIN to the sound, that equates to .1% of the total load. Seems like these small loaders would be better off just being held to monitoring standards while the Dominant and Moderate loaders pave the way. Especially when it comes to capital project implementation. Being a 1% contribution to the total load, every dollar spent is going to be vastly inefficient compared to a moderate or dominate loader. Ecology could create a credit system if cost sharing is required.
37	Par 1 Sentence 1 re: "...supplements the individual NPDES permits…"	Please explain how the proposed PSNGP "supplements" the individual permit. Which permit takes precedence?
37	Special Condition 4: Bullet Point 4 re: AKART and evaluation alternatives to meet 3 mg/L TIN	Please explain the basis for 3 mg/L.
41	Par 2 Last Sentence re: developed permit issuance schedule for private treatment plants	Please provide a copy of this schedule and explain how this will be accomplished without impacting on the updates to individual permits and the submittal schedule required by this draft PSNGP.
43	ACTION LEVEL CALCULATION Last par on page re: AL0	It may be possible that future numeric WQBELs will show that a facility could discharge at a load amount higher than the amount generated for the AL0 through the bootstrapping method. Please explain how the anti-backsliding rule will work in this situation.
43	ACTION LEVEL CALCULATION	Ecology now has more accurate data to use in its calculations to develop the load caps, will ecology use that data to update load allocations? Has ecology confirmed the Bootstrapping method chance of exceedance predictions has tracked?
44	Last Paragraph "Sampling requirements in Condition S6 will increase sampling density.."	Ecology should wait to get this consistent sample data set before setting action levels.
44	Last Paragraph	Can ecology provide their “bootstrap calculator” to dischargers, so they can see if a reassessment is warranted.
44	Last Paragraph: “Permittees must show that the overall loading to the facility has not increased…”	Plants were designed to meet their NPDES permits. By not allowing load caps to increase with growth, ecology is assuming all plants can offset growth with optimization, which may not be the case. Growth needs to be allowed when reassessing caps, or else the facility has essential lost capacity.
45	DRAFT CONDITION S4.C NITROGEN OPTIMIZATION PLAN	Please explain how a report is a BMP.

46	Par 2, First Sentence "Plants that do not use an activated sludge process are encouraged to focus more on influent load reductions…"	Please provide examples of successful projects that have achieved influent load reductions without a scalping plant upstream of the POTW.
49	Par 1 Last sentence "….Permittees must also begin to identify different approaches for reducing TIN from new dense residential development…"	Provide examples of how reducing TIN from resident development can occur without regulatory changes to building and plumbing codes and explain the timeline Ecology expects this effort.
49	*Draft Condition S4.D. Action Level Exceedance Corrective Actions;* Par 2 "Strategies considered for reducing loading…"	All of these options require substantial capital planning and investment. This does not meet the stated optimization definition from Ecology. Please provide justification for this requirement.
50	*Draft Condition S4. E Nutrient Reduction Evaluation* Par 1 of section related to LOTT.	Providing exceptions for a facility covered under this permit continues to recognize that a general permit is not applicable in this situation.
51	*Draft Condition S4. E Nutrient Reduction Evaluation* Par 2 Last Sentence re: "Completion of planning exercise during first permit term.."	A POTW cannot adequately plan for process and equipment modifications without knowing what the final limit to be achieved it. It is a waste of time and ratepayer money to plan for the unknown. Starting this process without the numeric WQBELs is a waste of time and money for our ratepayers and will not achieve the intended goal of reducing time to achieve the numeric limits.
52	Par 2 Last sentence re "… site-specific evaluation is now required…"	This is why it would be better to have nutrient requirements in individual permits.
52	Par 3, Treatment Technology Analysis: NRE requirements to evaluate lower limit of technology estimated at 3 mg/L TIN.	Ecology is requiring efforts to a concentration that the "estimate" to be 3 mg/L. Please explain basis for using an estimate to determine that this would be the expected requirement limit for numeric WQBELs. Most treatment options require significant footprint to achieve 3mg/L, a footprint not all discharges have, potentially making it infeasible.
53	*Environmental Justice Review*	Please explain how this effort would occur for agencies that have contracts with other utilities for conveyance and treatment where the rates are set through a long term contract.
53	*Environmental Just Review*	Ecology should confirm with the EPA on terms that could be detrimental to receiving grant/loan funding in the future.
53	*Environmental Justice Review* Par 2 re: alternative wastewater rates to be considered	Washington State Constitution requires utility rates to be based on cost of service. Please explain how this would be applied without a change to the constitution.

65	Bootstrapping (statistics) reference	Wikipedia is not an appropriate reference for a permit document or applied statistics, especially when used to set a regulatory limit.
74	APPENDIX B - GLOSSARY	Several definitions in this draft PSNGP and fact sheet are different than the definitions of the same words in our Individual permit (specifically AKART, Best Management Practices, NPDES, TMDL to name a few). Why? What implications are there to the individual permit as a result of the differences?