Jane Steadman

Please accept the attached comments on the Puget Sound Nutrient Reduction Draft Plan and 2025 Puget Sound Nutrient General Permit (and the eight attachments thereto), which are submitted on behalf of the Suquamish Indian Tribe. Thank you for your consideration of these comments, and if you have any trouble opening the document, please contact Jane Steadman at jsteadman@kanjikatzen.com or Alison O'Sullivan at aosullivan@suquamish.nsn.us.

Sincerely,
Jane Steadman

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THE SUQUAMISH INDIAN TRIBE
PO Box 498 Suquamish, WA 98392-0498

August 27, 2025

Casey Sixkiller
Director, Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

RE: *Draft Puget Sound Nutrient Reduction Plan* and *Draft Puget Sound Nutrient General Permit*

Dear Director Sixkiller,

The Suquamish Indian Tribe writes to comment on the June 2025 Draft Puget Sound Nutrient Reduction Plan and reissued Draft Puget Sound Nutrient General Permit (PSNGP). In addition to these comments, please also review the attached Technical Memorandum prepared on behalf of the Tribe by CEA Engineers, P.C. (CEAPC), the recommendations of which the Tribe hereby adopts. The Tribe would appreciate a written response to these comments, as well as government-to-government consultation following your review. In addition, the Tribe is submitting comments it made on the prior PSNGP and 2024 West Point Treatment Plant individual permit, which describe ongoing issues with Ecology's handling of nutrients over the years. The Tribe is concerned that Ecology's proposed actions again do not meet the urgency of the moment and will facilitate continued foot dragging and delay tactics by dischargers, which have stymied progress on the nutrient and dissolved oxygen problem in Puget Sound for decades.

The Suquamish people have lived, fished, hunted, and gathered in and around Puget Sound since time immemorial. The Suquamish Indian Tribe takes its name from the traditional Lushootseed phrase for "people of the clear salt water" and is signatory to the 1855 Treaty of Point Elliot, in which the Tribe forever reserved the right to take fish in its usual and accustomed fishing areas (U&A). Suquamish U&A encompasses large swaths of Puget Sound and connected waters into which wastewater collection and treatment systems discharge. King County's West Point WWTP and other WWTPs are major sources of pollution in the Tribe's U&A, and the Tribe and its members have long been harmed by their discharges, which foul the water and habitat for aquatic species, result in the posting of health advisories and closure of beaches where Suquamish tribal members harvest shellfish, prompt recalls of commercially sold shellfish, interfere with tribal member harvest and sale of salmon, and disturb important cultural activities such as the annual Canoe Journey. In addition to being a major source of fecal coliform pollution, West Point WWTP is the number one source of anthropogenic nutrient pollution in Puget Sound, contributing greatly to the dissolved oxygen problem.

To address the longstanding harm from nutrient loads and dissolved oxygen impairment in Puget Sound, the Tribe requests that Ecology greatly accelerate reductions in total nitrogen (TN) through improvements to its Nutrient Reduction Plan and agency permitting practices. Specifically, the Tribe believes the following actions must be taken to address these long-standing problems:

- **The timelines proposed in the Nutrient Reduction Plan are unacceptably long and must be shortened considerably:** A 25-year timeline (2050) for achieving water quality standards is unacceptable and does not reflect the urgency of solving the problem. Ecology should take the steps necessary to meet water quality standards by 2035. The health of Puget Sound is too important to wait. If a dissolved oxygen TMDL is needed to accelerate reductions in the nutrient load to Puget Sound on a more reasonable timeframe, then that Clean Water Act tool should be considered in addition to the recommendations below.

- **The Puget Sound Nutrient General Permit should be abandoned:** Ecology reissued the PSNGP for public comment only to make the permit optional following the February 28, 2025 Pollution Control Hearings Board (PCHB) Order Granting Permittees' Joint Motion for Partial Summary Judgment in *Puget Soundkeeper Alliance v. State of Washington Department of Ecology*, PCHB No. 21-082c. The PSNGP thus contains all the same legal and technical flaws that led to it being challenged by the Tribe and environmental NGOs in the PCHB in the first place. Because Ecology has addressed none of those problems, the general permit, even if optional, is legally vulnerable on the substantive grounds not yet reached in the prior PCHB proceedings. *See*, *e.g.*, Proposed Legal Issues submitted by Puget Soundkeeper Alliance, WEC and Suquamish Tribe (attached). Moreover, the PSNGP, which only regulates total inorganic nitrogen, does not even address the TN reductions called for in the Nutrient Reduction Plan, nor does it require timely short- and long-term corrective actions following action level exceedances. Waiting potentially five years for an exceedance to be addressed and implementation of an action is unacceptable.

- **Ecology should instead issue individual permits to address TN for <u>all</u> WWTPs discharging to Puget Sound no later than the end of 2030:** All existing WWTP individual permits will need to be revised by 2030 due to the five-year permit cycle. It will be more efficient and effective to achieve nutrient reductions in a facility-specific manner by addressing TN reduction in the individual permits, which can include compliance schedules to allow facilities the time needed to meet water quality requirements. This will also allow Ecology to address the localized water quality impacts of individual WWTPs in specific areas of the Tribe's U&A in addition to the cumulative nitrogen load.

- **Ecology—*not individual permittees*—is responsible for determining AKART:** Ecology must identify AKART for TN based on what current, commonly utilized wastewater treatment technologies and processes are capable of achieving and identify numeric WQBELs based on AKART. Activated sludge biological treatment processes, combined with intra or post-biological treatment filtration, such as membrane bioreactors ("MBR") or deep bed denitrification filters are commonly able to achieve to effluent TN concentrations of 3 mg/l or less. As a result, NPDES permitting authorities across the country frequently apply TN effluent limits of 3 mg N/l when treated wastewater effluent is discharged directly to, or could impact, impaired surface waters. Ecology should do the same.

- **The individual permits must include numeric effluent limits:** Throughout the wastewater treatment industry, wastewater treatment facilities that use common activated sludge biological treatment processes with denitrification routinely achieve effluent TN concentrations of 3 mg/l. Given the sensitive nature of the Tribe's U&A (including Sinclair Inlet and Dyes Inlet, among other water bodies especially sensitive to nutrient loading), TN effluent limits should be set at 3 mg/l.

- **Permits should include load- and concentration-based effluent limits:** For WWTPs discharging to waterbodies impaired for nutrients, including marine waters, it is common to have both load- and concentration-based effluent limitations. For example, NPDES permits issued to WWTPs in the Tampa Bay region of Florida, which has a TMDL in place for TN due to the impacts of algal growth (e.g., red tide), and NPDES permits issued to WWTPs in New York and Connecticut that discharge to the Long Island Sound, which is impaired for dissolved oxygen, are issued with concentration-based TN effluent limits and commonly with annual TN load (based on a rolling 12-month total) and/or five-year annual average TN load effluent limits. The concentration-based limits will allow Ecology and the public to ensure that WWTPs consistently achieve a minimum standard of treatment and reduce localized impacts, while load-based effluent limits can help the agency and public understand cumulative impacts, the effectiveness of treatment upgrades, and trends in a WWTP's average performance.

- **Ecology cannot approve new sources or allow the expansion of existing sources of nutrients:** Ecology has already determined there is reasonable potential for existing sources to cause or contribute to violating water quality standards. Moreover, Puget Sound is already impaired for dissolved oxygen and should have a TMDL. Consequently, WWTPs should be on notice that they cannot expand capacity to meet the needs of growing populations or climate change effects without first making the necessary technology improvements to reduce nutrients.

- **Ecology and WWTP permittees should move aggressively to make the case for funding to the state legislature and Congress:** Undoubtedly, the facility improvements necessary to reduce nutrient loads and meet water quality standards will be very expensive and cannot fairly be placed on ratepayers. However, costs only increase over time. Decades of inaction on Ecology's part has already increased the cost of dealing with the nitrogen problem, and the lengthy timeline proposed in its Nutrient Reduction Plan—including not even requiring the first progress report for another seventeen years—will only exacerbate the funding problem. Ecology must establish a schedule for interim progress reports every two years beginning in 2027, both to ensure the region actually makes progress and adapts to changes as needed but to provide support for its own or local governments' funding requests and no or low interest loans.

- **The West Point Treatment Plant permit (WA0029181) should be revised immediately to include AKART and numeric effluent limits:** The West Point Treatment Plant is the largest source of TN loads to Puget Sound. It is frustrating that the agency has not yet acted to impose these requirements when the public, including the Tribe, urged the agency to do this when it issued the individual permit last year. King County itself argued in the PCHB appeal that the PSNGP was unlawful and the nutrient requirements it contains must be accomplished through individual permits. *See* Permittee Appellants' Joint Motion for Partial Summary Judgment on Threshold Issues, PCHB No. 21-082c, at 1-2, 14-21 (March 18, 2022); Permittee Appellants' Reply in Support of Joint Motion for Partial Summary Judgment on Threshold Issues, PCHB No. 21-082c, at 3-10 (April 29, 2022). Ecology can and must take immediate action to control nutrients in the individual permit; this is why General Condition 3 (G.3) exists in NPDES permits. There is no valid reason to allow the largest discharger in Puget Sound to continue to delay the facility changes necessary to meet water quality standards.

- **The concept of a nitrogen trading program in Puget Sound must be abandoned:** The Suquamish Tribe strongly objects to any nitrogen trading program in Puget Sound. A trading program would allow an individual WWTP to continue to discharge elevated TN loads that can result in localized impacts in the vicinity of its discharge location. It would also disincentive WWTPs from upgrading their treatment processes if it is financially beneficial to purchase credits

and allow them to delay potentially expensive upgrades. A TN credit trading program would have an outsized and intolerable impact on the Tribe given the strong potential for extending adverse localized impacts to shellfish beaches on which the Tribe would otherwise exercise its treaty fishing rights. Due to the extent of treatment upgrades that are necessary at West Point Treatment Plant and other WWTPs, the Tribe is extremely concerned that a nitrogen trading program would prolong impacts to its treaty fishing rights and closures of shellfish beaches.

The Tribe strongly objects to the extreme delay in achieving nutrient reductions that would attend implementation of the Nutrient Reduction Plan as written. Ecology can much more efficiently and quickly force action by abandoning the PSNGP, requiring individual permits, and incorporating action forcing requirements into individual NPDES permits for all WWTPs. And when it does so, it must not allow a scenario in which localized acute impacts to treaty fishing could continue, as would be possible if a nutrient trading program were to be adopted. Thank you for your consideration of these comments. Please contact me at aosullivan@suquamish.nsn.us to schedule the government-to-government consultation requested at the outset of this letter.

Sincerely,

/s Alison O'Sullivan

Alison O'Sullivan
Ecosystem Recovery Program Manager
Suquamish Indian Tribe

cc

Jeremy Reiman, Washington State Department of Ecology, Water Quality Program
William Weaver, Washington State Department of Ecology, Water Quality Program
Adam Levitan, Washington State Office of the Attorney General, Ecology Division

Attachments:

CEAPC Technical Memorandum (August 25, 2025)
Suquamish Tribe's Comments on Draft PSNGP (August 16, 2021)
Puget Soundkeeper Alliance's Comments on Draft PSNGP (August 16, 2021)
WEC & Suquamish Tribe's Proposed Legal Issues, *Puget Soundkeeper Alliance v. State of Washington Department of Ecology*, PCHB No. 21-082c (Feb. 1, 2022)
Puget Soundkeeper Alliance's Proposed Legal Issues, *Puget Soundkeeper Alliance v. State of Washington Department of Ecology*, PCHB No. 21-082c (Feb. 1, 2022)
Suquamish Tribe's Comments on West Point NPDES Permit (July 7, 2023)
Suquamish Tribe's Supplemental Comments on West Point NPDES Permit (Oct. 19, 2023)
Letter from Chairman Leonard Forsman to Ecology Director Laura Watson re West Point NPDES Permit (Dec. 1, 2023)

CEAPC Technical Memorandum on Draft Puget Sound Nutrient Reduction Plan and Draft Puget Sound Nutrient General Permit (August 25, 2025)

CEA Engineers, P.C.
Kevin Draganchuk, P.E., BCEE
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Technical Memorandum

Date: August 25, 2025

To: Suquamish Indian Tribe (Ecosystem Recovery Program Manager Alison O'Sullivan, Tribal Attorney Kendra Martinez, Esq.); Kanji & Katzen, P.L.L.C. (Jane Steadman, Esq.)

From: Kevin Draganchuk, P.E., BCEE

Re: Draft Puget Sound Nutrient Reduction Plan and Draft Puget Sound Nutrient General Permit

CEA Engineers, P.C. Job No.: J23-04

On behalf of the Suquamish Indian Tribe ("Tribe"), this Technical Memorandum conveys an evaluation by CEA Engineers, P.C. ("CEAPC") of the June 2025 Draft Puget Sound Nutrient Reduction Plan ("Draft PS Nutrient Reduction Plan") prepared by the State of Washington Department of Ecology ("Ecology") and the reissued June 2025 Draft Puget Sound Nutrient General Permit ("Draft PS Nutrient General Permit") prepared by Ecology with a focus on the adequacy and practical engineering prudence of their engineering and technical components. CEAPC's evaluation of the Draft PS Nutrient General Permit specifically considered its permit conditions and overall practicality relative to the contents, schedules, and goals of the Draft PS Nutrient Reduction Plan. CEAPC evaluated the Draft PS Nutrient Reduction Plan and Draft PS Nutrient General Permit for adequacy to be protective of public health and well-being and environmental and ecological resources and in accordance with the general standard of care to adhere to best engineering practices and industry standards in the wastewater treatment and combined/sanitary sewer system industries.

Ecology requested specific feedback from the public on several technical topics of the Draft PS Nutrient Reduction Plan in Appendix H: Preliminary Considerations for the Development and Implementation of Water Quality Based Effluent Limitations, such as the basis for developing water quality based effluent limits ("WQBELs") and setting NPDES permit effluent limits. CEAPC provides specific feedback on each requested topic.

CEAPC additionally provides several comments on specific engineering or technical components of the Draft PS Nutrient Reduction Plan.

Major Comments

Based on its evaluation of the Draft PS Nutrient Reduction Plan and Draft PS Nutrient General Permit, CEAPC provides the following "major" comments:

1. Ecology should regulate nitrogen discharges from WWTPs discharging directly to the Puget Sound via individual NPDES permits and should not finalize and issue the Draft PS Nutrient General Permit.

2. Utilizing a combination of individual permits and the Draft PS Nutrient General Permit will result in differing and unnecessarily convoluted approaches to identifying and complying with nitrogen load targets and numeric WQBELs at WWTPs discharging directly to Puget Sound.

3. Ecology can utilize the phased implementation approach it proposes in the Draft PS Nutrient General Permit in a more efficient and effective, WWTP-specific manner, through Compliance Schedules in individual NPDES Permits. Developing WWTP-specific Compliance Schedules in individual NPDES permit is a considerably more effective and efficient approach to achieving meaningful reductions in nitrogen loads to Puget Sound than the far broader requirements, implementation schedule, and WWTP groupings (i.e., small, moderate, and dominant) of the Draft PS Nutrient General Permit, especially considering that under the Draft PS Nutrient Reduction Plan, WWTPs will be required to meet WQBELs based on individual nitrogen load allocations, individual NPDES permits with Compliance Schedules based on WWTP-specific existing treatment systems; treatment performance; sewage flows, loads, and characteristics (e.g., combined sewage); financial resources; and capital improvements plan.

4. The goal of the Draft PS Nutrient Reduction Plan is to reduce ***total nitrogen*** ("TN") discharges to Puget Sound, since it is inclusive of all nitrogen forms (i.e., ammonia, inorganic, organic), all of which can deplete dissolved oxygen in Puget Sound. The Draft PS Nutrient General Permit intends to regulate only ***total inorganic nitrogen*** ("TIN"), which is only a portion of TN, and thus is inconsistent with the goals of the Draft Nutrient Reduction Plan.

5. Consistent with Major Comment 3, issuance of individual NPDES permits will be considerably more effective and efficient in addressing localized water quality impacts, which is of particular importance to stakeholders such as the Tribe that has treaty rights to its usual and accustomed shellfish harvesting and fishing areas and relies on Puget Sound for its traditional lifeways. For example, wastewater effluent discharges from the West Point WWTP impact the Tribe's historic usual and accustomed shellfish harvesting and fishing area, resulting in localized water quality impacts. Even after achieving considerable reductions in TN discharges if it meets its TN load target required under Ecology's modeling in the Draft PS Nutrient Reduction Plan by 2050, approximately 25 years in the future, the West Point WWTP would still be the largest point source of TN loads to Puget Sound with an annual TN load over 2,140,000 pounds. Thus achieving meaningful reductions in TN discharges as quickly as possible in order to improve the water quality of Puget Sound on a localized (and cumulative) basis are of particular importance to stakeholders such as the Tribe.

6. Rather than passing AKART identification off to individual NPDES permittees as proposed in the Draft PS Nutrient General Permit, Ecology needs to identify AKART for TN based on what current, commonly utilized wastewater treatment technologies and processes are capable of achieving and identify numeric WQBELs based on AKART (with seasonal ambient temperature variations in treatment performance and unique attributes of receiving waters taken into consideration).

   Wastewater treatment facilities throughout the wastewater treatment industry utilizing common activated sludge biological treatment processes with denitrification routinely achieve effluent TN concentrations between 3 mg/l and 8 mg/l.

   a. The Modified Ludzack-Ettinger ("MLE") process is the most commonly employed biological nitrogen removal treatment process in wastewater treatment and is capable of TN removal rates of 80% and effluent TN concentrations between 5 mg/l and 8 mg/l.[1,2]

   b. The Bardenpho process adds an additional anoxic zone (i.e., a wastewater treatment zone without dissolved oxygen that requires a different oxygen source for microorganisms to utilize, such as nitrate (NO_3), that results in denitrification and release of nitrogen gas to the atmosphere) to the MLE process and increases denitrification capabilities and overall TN removal rates to commonly achieve effluent concentrations between less than 3 mg/l and 5 mg/l.[3,4]

   c. Activated sludge biological treatment processes, combined with intra or post-biological treatment filtration, such as membrane bioreactors ("MBR") or deep bed denitrification filters are commonly able to achieve to effluent TN concentrations of 3 mg/l or less.[5,6]

   TN in domestic wastewater is comprised primarily of inorganic nitrogen, most commonly ammonia, nitrite and nitrate, with the remaining portion as organic nitrogen, such as proteins, amino acids, naturally occurring organic compounds, and synthetic compounds.[7] Activated sludge wastewater treatment processes as described above designed for full denitrification are commonly capable of removing between 80% and 95% of influent inorganic nitrogen and have a typical technology limit of effluent

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1 United States Environmental Protection Agency, Nutrient Control Design Manual, State of Technology Review Report, EPA/600/R-09/012, January 2009, page 35 - 36. (Hereafter, "EPA Nutrient Control Design Manual")
2 Metcalf and Eddy, AECOM, Wastewater Engineering Treatment and Resource Recovery, Fifth Edition, 2014, page 846, Table 8-25. (Hereafter, "Metcalf & Eddy")
3 EPA Nutrient Control Design Manual, page 36.
4 Metcalf & Eddy, page 847, Table 8-25.
5 Metcalf & Eddy, pages 846 - 847, Table 8-25.
6 United States Environmental Protection Agency, Biological Nutrient Removal Processes and Costs, EPA-823-R-07-002, June 2007, pages 2 and 4. (Hereafter, "Biological Nutrient Removal Processes and Costs")
7 EPA Nutrient Control Design Manual, pages 26 – 27.

concentrations between 1 mg N/l and 2 mg N/l. Through the nitrification process, the activated sludge treatment process is commonly capable of removing 90% of influent ammonia to achieve effluent concentrations less than 1 mg N/l with technology limits of less than 0.5 mg N/l.[8,9] More than 90% of influent amino acids and proteins are removed by biological treatment; however, biological treatment is generally ineffective in removing other soluble and particulate forms of organic nitrogen. Particulate organic nitrogen is removed during clarification and filtration treatment processes. As a result, organic nitrogen commonly accounts for up to 50% of effluent TN concentrations in treated wastewater and has typical technology limitations for effluent concentrations of less than 1.0 mg N/l particulate organic nitrogen and between 0.5 mg N/l and 1.5 mg N/l soluble organic nitrogen.[10,11]

As a result, NPDES permitting authorities frequently apply TN effluent limits of 3 mg N/l when treated wastewater effluent is discharged directly to, or could impact, surface waters impaired for nutrients or water reuse is anticipated, such as for irrigation.[12,13,14]

If individual WWTPs are unable to achieve AKART for site-specific reasons, or will require considerable time to be able to achieve AKART based on the extent of necessary treatment system upgrades, this can be taken into account by Ecology during issuance of individual permits, their Compliance Schedules, and their individual special permit conditions.

Furthermore, when determining AKART, Ecology should consider the aquatic life use categorization of the portion of Puget Sound that a given WWTP discharges to and its corresponding sensitivity to nitrogen loads and adverse impacts on dissolved oxygen. When possible for sensitive portions of Puget Sound, Ecology should aim to identify AKART capable of achieving the lowest possible year-round TN concentrations as WQBELs.

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8 Water Environment Federation, Activated Sludge and Nutrient Removal, WEF Manual of Practice No. OM-9, Third Edition, 2018, page 14.

9 Biological Nutrient Removal Processes and Costs, pages 1 – 2.

10 EPA Nutrient Control Design Manual, pages 24 – 25.

11 Biological Nutrient Removal Processes and Costs, pages 1 – 2.

12 EPA Nutrient Control Design Manual, page 25 and 44.

13 2023 Florida Statutes (including Special Session C) Title XXIX Public Health, Chapter 403, Environmental Control, 403.86 Sewage disposal facilities; advanced and secondary waste treatment.

14 Bloetscher, Frederick and Gokgoz, Sinem, Comparison of Water Quality Parameters from South Florida Wastewater Treatment Plants Versus Potential Receiving Waters, Florida Water Resources Journal, June 2001, pages 37 – 45.

Feedback Requested by Ecology on Appendix H: Preliminary Considerations for the Development and Implementation of Water Quality Based Effluent Limitations

Basin-wide Loading and Facility Allocations:

Based on the three options Ecology presented in Appendix H, CEAPC recommends Ecology generally uses Option 2 as its basis for translating TN loads from the targets in the Draft PS Nutrient Reduction Plan to WWTP WQBELs and nitrogen load allocations with the additional specific recommendations.

- CEAPC recommends that nitrogen load allocations and WQBELs are based on TN ***loads*** and not total effluent flow volumes. Mass loads account for both total effluent flow and TN concentrations and are more representative of a given WWTP's impact on Puget Sound's water quality on both a localized and cumulative basis.
- CEAPC recommends that Ecology rely on real flow data for determining nitrogen load allocations. Use of real flow data is more reflective of the actual load contribution of a given WWTP relative to other flow bases, such as total permitted maximum monthly design flow as proposed in Option 3.

  Additionally, load-based WQBELs based on real flow data and TN concentration data will:

  - account for any reductions in TN load a given WWTP may achieve prior to WQBEL development.
  - incentivize WWTPs to reduce both effluent discharges and TN concentrations to achieve established WQBELs and corresponding TN loads.
- CEAP recommends basing WQBELs on TN loads, which will encourage improved and/or additional treatment at WWTPs to remove TN from wastewater, thus reducing effluent TN concentrations and corresponding TN loads to Puget Sound. Absent improved and/or additional treatment at a given WWTP, reductions in TN are not likely to occur, especially at a dominant WWTP like West Point WWTP that treats combined sewage where reductions in effluent flows are relatively difficult to achieve.
  - Reductions in TN loads at dominant WWTPs are *critical* to achieving the goals of the Draft PS Nutrient Reduction Plan, since their relative contribution (80% based on TIN) far exceeds that of moderate (19% based on TIN) or small (1% based on TIN) dischargers.[15]
    - West Point WWTP accounts for approximately 25.6% of the current average daily TN load of all WWTPs discharging to Puget Sound and 35%

[15] Washington State Department of Ecology, Draft Puget Sound Nutrient Reduction Plan, Publication 25-10-038, June 2025, page 20. (Hereafter, "Draft PS Nutrient Reduction Plan")

of the annual marine point source TN load target to the Puget Sound Main basin after Draft PS Nutrient Reduction Plan Implementation.[16,17]

- South King WWTP accounts for approximately 24% of the current average daily TN load of all WWTPs discharging to Puget Sound and 33% of the annual marine point source TN load target to the Main basin after Draft PS Nutrient Reduction Plan Implementation.[18,19]
- Of 23 total permitted dischargers to the Main basin, the West Point and South King WWTPs would account for nearly 70% of the total annual marine point nitrogen loads targets based on the modeling in the Draft PS Nutrient Reduction Plan Implementation.

- Both South King and West Point WWTPs treat combined sewage through secondary treatment from large service areas, making reducing effluent flows considerably more difficult and thus less effective at achieving meaningful TN load reductions relative to improved and/or additional treatment of combined sewage to remove TN from wastewater and reduce TN concentrations in treated effluent.
- In general, the ability to reduce effluent flows is extremely dependent on the specific conditions at a given WWTP, the sewer system tributary to the WWTP, and its service area. Some WWTPs may be able to reduce, or even eliminate if effluent flows are low enough, direct discharge of treated effluent to surface waters through alternative means of effluent disposal, such as infiltration basins or reclaimed water reuse opportunities (e.g., irrigation). Reduction in WWTP influent flows through elimination of groundwater infiltration into sewer systems via pipe and manhole repairs, or stormwater inflow in separate sewer systems through inflow source identification and elimination (e.g., illicit drain connections; leaking manhole covers), results in reduced effluent discharges. Older sewer systems, for example, are more likely to be able to achieve meaningful flow reductions through infiltration and inflow elimination relative to newer sewer systems.
  - CEAPC recommends that Ecology promotes inflow and infiltration in removal in tributary sewer systems through special permit conditions when WWTPs renew their individual NPDES permits, which will provide numerous positive benefits to a given WWTP and its tributary sewer system, including WWTPs such as West Point WWTP that treat

16 Draft PS Nutrient Reduction Plan, Appendix E.
17 Washington Department of Ecology, Draft Puget Sound Nutrient General Permit, June 18, 2025, Appendix D, Table 4. (Hereafter, "Draft PS Nutrient General Permit")
18 Draft PS Nutrient Reduction Plan, Appendix E.
19 Draft PS Nutrient General Permit, Appendix D, Table 4.

wastewater from separate sanitary sewer systems that discharge to its tributary combined sewer system. The benefits of inflow and infiltration removal and resulting WWTP influent flow reductions include, but are not limited to, increased ability to achieve WQBELs, reduced routine operation and maintenance costs, and improved structural condition and reliance of tributary sewer systems.

In sum, CEAPC recommends that Ecology base nitrogen load allocations and WQBELs on TN loads rather than other proposed metrics. Basing nitrogen load allocations and WQBELs on TN loads will result in WWTPs being required to improve existing treatment process and/or add new treatment processes to reduce TN concentrations, and thus corresponding loads, in order to achieve their WQBEL-based NPDES permit effluent limitations.

Selecting Pollutants for NPDES Permit Limits

CEAPC agrees with Ecology that WQBELs should be based on TN and not other parameters that assess nitrogenous load, such as TIN (like the Draft PS Nutrient General Permit relies upon) or total Kjeldal nitrogen (sum of organic nitrogen and ammonia). TN is the most comprehensive parameter, being inclusive of all forms nitrogen that deplete dissolved oxygen ("DO") levels in Puget Sound.

Loads vs. Concentration

CEAPC agrees with Ecology that the best approach to developing WQBELs is to rely on mass-based load effluent limits, relative to concentration-based effluent limits. As detailed earlier, relying upon loads incentivizes both effluent TN concentration reductions through improved and/or additional treatment or flow reductions, which can be achieved through reclaimed water distribution or elimination of extraneous inflow and infiltration flows to a sewer system. As discussed in more detail later in this Technical Memorandum, CEAPC additionally recommends that concentration-based effluent limits are included in NPDES permit to ensure that WWTPs achieve a consistent level of treatment performance throughout the year.

Ecology discusses that concentration-based effluent limits could be used if a given permittee specifically requested them. In this scenario, Ecology should require not only a permitted effluent flow volume limit, but a Compliance Schedule intended to reduce effluent flows (as described earlier).

Effluent Limits Averaging Period

CEAPC agrees that using average loads over a selected time period, such as rolling 12-month averages, is a reasonable and prudent approach to setting load-based NPDES permit effluent limits for TN; however, CEAPC recommends that concentration-based effluent limits are also included in NPDES permits to require consistent minimum treatment standards in addition to load-based effluent limits that account for the cumulative nature of TN impacts on marine

waters, seasonal fluctuations in flows and loads, and the ability to effectively treat for nitrogen during colder weather months (cold weather reduces nitrification rates, a step in biological nitrogen removal that converts ammonia to nitrite and then to nitrate).

Ecology's rationale that the adverse impacts of TN discharges are not acute but rather develop over time is accurate; however, including TN concentration-based effluent limits, such as monthly average, weekly average, or daily maximum, should also be included in NPDES permits in order to ensure that WWTPs consistently achieve a minimum standard of treatment and reduce localized impacts. Considering ambient temperature impacts on nitrogen treatment effectiveness, concentration-based limits should be seasonally based, with lower limits in the warmer weather months and higher limits in cooler weather months.[20] Ecology also should consider the water quality of the portion of Puget Sound a given WWTP discharges to, including its aquatic life use categorization and sensitivity to nitrogen loads and their adverse impact on dissolved oxygen concentrations.

In CEAPC's experience with nutrient NPDES permit effluent limitations for WWTPs discharging to waterbodies impaired for nutrients, including marine waters, it is common to have both load and concentration based effluent limitations. For example, NPDES permits issued to WWTPs in the Tampa Bay region of Florida, which has a TMDL in place for TN due to the impacts of algal growth (e.g., red tide), and NPDES permits issued to WWTPs in New York and Connecticut that discharge to the Long Island Sound, which is impaired for dissolved oxygen, are issued with concentration-based TN effluent limits and commonly with annual TN load (based on a rolling 12-month total) and/or five-year annual average TN load effluent limits.[21,22,23,24]

Longer-term load averages, such as five-year annual average loads, can be prudent for Ecology to include in NPDES permits, especially when WWTPs are under Compliance Schedules, in order to account for the impacts of treatment upgrades, construction activities, or adverse

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20 For use in its Salish Sea Model used in development of the PS Nutrient Reduction Plan, Ecology identifies "hot" months as between July and September, "warm" months as between April and June and the month of October, and "cool" months as between November and March

21 Weaver, Ken, Florida Department of Environmental Protection, Division of Environmental Assessment and Restoration, Tampa Bay Reasonable Assurance Plan, October 28, 2021.

22 CEAPC has provided expert engineering support for litigation, settlement negotiations, and consent decree compliance monitoring related to the following municipal Publicly Owned Treatment Works (POTWs) in the Tampa Bay region and their exceedances of NPDES permit effluent limitations for total nitrogen (concentration and loaded based effluent limits): City of Largo, City of Bradenton, City of St. Petersburg, and Sarasota County.

23 CEAPC has provided expert engineering support for litigation, settlement negotiations, and consent decree compliance monitoring related to municipal Publicly Owned Treatment Works (POTWs) in Westchester County, New York and southeastern Connecticut (e.g., Bridgeport, Norwalk) that discharge to the portion of the Long Island Sound with a TMDL for dissolved oxygen.

24 New York State Department of Environmental Conservation and Connecticut Department of Environmental Protection, A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound, Prepared in Conformance with Section 303(d) of the Clean Water Act and Long Island Sound Study, December 2000.

weather events that can impact TN treatment performance and the ability to comply with annual average loading effluent limits. It also allows for Ecology and the public to analyze trends in a given WWTP's average performance over a longer timeframe.

Longer-Term NPDES Compliance Tools/Compliance Schedules

According to Ecology, it committed to a phased implementation approach for WWTPs to be able to achieve its long-term goal of meeting WQBELs and DO water quality standards ("WQS") in Puget Sound by 2050 through issuance of the Draft PS Nutrient General Permit. CEAPC disagrees with Ecology's conclusion, since numeric WQBELs are not part of the Draft PS Nutrient General Permit, there is no clear pathway for their implementation in the Draft PS Nutrient General Permit, and the Draft PS Nutrient General Permit's phasing based on narrative effluent limits consisting of monitoring and planning (without required action to implement additional treatment to achieve numeric WQBELs) is extremely slow, especially considering no reductions are required as long as the overly permissive Action Levels set at the 99th percentile upper confidence level of the current mean performance of a dominant WWTP's are not exceeded (by far the largest TN WWTP point sources to Puget Sound).

CEAPC recommends that Ecology issue individual NPDES permits at the next required renewal for WWTPs that identify WQBELs based on AKART capable of achieving TN concentrations of 3 mg/l (with allowance for seasonal variations in ambient temperatures) and a Compliance Schedule based on WWTP-specific circumstances (e.g., existing treatment systems, financial capabilities, influent characteristics). The induvial NPDES permit approach moves WWTPs towards TN reductions considerably quicker, more effectively, and more efficiently than the Draft PS Nutrient General Permit approach. Additionally, the Draft PS Nutrient General Permit is based on TIN, which is only a portion of TN, the parameter on which the Draft PS Nutrient Reduction Plan is based. This in effect sets less stringent performance requirements on WWTPs covered under the general permit than would be required by WQBELs based on TN, as is the goal of the Draft PS Nutrient Reduction Plan.

Longer-Term NPDES Compliance Tools/Interim Permit Limits

CEAPC agrees with Ecology that setting interim effluent limits is a prudent approach when developing Compliance Schedules to allow time for completing studies, treatment system upgrade designs, and treatment system upgrade construction. CEAPC reiterates that use of WWTP-specific interim limits to ultimately achieve WQBELs reinforces that issuance of individual permits with Compliance Schedules is a more effective and efficient approach to providing NPDES permit coverage through the broad-based approach of the general permit.

- Ecology plans to set interim effluent limits for ***TN*** based on the ***95th percentile*** of current WWTP treatment performance. If Ecology intends to continue with its plans to issue a final version of the Draft PS Nutrient General Permit, it should use the same standard to identify Action Levels for dominant dischargers, rather than the 99th percentile of only TIN discharges.

Additional CEAPC Comment on Appendix H – Further Rationale for Individual NPDES Permits

Though EPA provides several permitting methodologies for developing WQBELs, Ecology has not selected a methodology due to the unique characteristics of Puget Sound, such as its complex hydrodynamics and cumulative nature of numerous TN dischargers across a large geographic area. As a result, Ecology has to determine how to best align WQBELS and future NPDES permit requirements (e.g., Compliance Schedules) with EPA guidance and the Salish Sea Model it developed for use in the Draft PS Nutrient Reduction Plan.

- As described by Ecology, the unique characteristics of Puget Sound, including its complex hydrodynamics and geographically dispersed TN dischargers that have both a localized impact and a cumulative impact on Puget Sound, reinforces that individual NPDES permits, most importantly for the dominant WWTPs but also for all WWTPs directly discharging to Puget Sound, are a superior approach to reducing TN discharges, reducing localized adverse impacts, and achieving the DO WQS than the Draft PS Nutrient General Permit.

Additional Comments on the Draft PS Nutrient Reduction Plan

Nitrogen Credit Trading

TN credit trading may achieve a basin-wide objective; however, it allows an individual WWTP to continue to discharge elevated TN loads that can result in localized impacts in the vicinity of its discharge location and disincentives WWTPs that purchase credits from upgrading their treatment processes if it is financially beneficial to purchase credits. Though the Draft PS Nutrient Reduction Plan indicates that a TN credit trading program could incentivize some WWTPs to implement TN treatment technologies, it could conversely incentivize WWTPs that require extensive treatment system upgrades to achieve TN WQBELs and load allocations to delay potentially expensive upgrades in preference of purchasing credits. Ecology describes the TN credit program as a way for WWTPs that are unable to meet their NPDES permit TN effluent limits in the short-term to achieve temporary permit compliance and work towards implementing TN treatment technology upgrades.[25]

These adverse impacts of a TN credit trading program can have an outsized impact on stakeholders such as the Tribe, considering the strong potential for continued adverse localized impacts. WWTP discharges into tribal usual and accustomed fishing areas cause localized impacts to shellfish harvesting and fishing, including, for example, shellfish beach closures. Due to the extent of treatment upgrades that would be required for dominant dischargers like West Point WWTP to achieve their TN targets, if these dischargers were to purchase TN credits, it would simply delay the already lengthy process of completing required treatment upgrades necessary to improve water quality in Puget Sound and reduce localized adverse impacts to Tribal resources.

[25] Draft PS Nutrient Reduction Plan, page 43.

CEAPC Recommendation

CEAPC strongly objects to the implementation of nutrient trading and recommends that Ecology forego a TN credit trading program. To help WWTPs that require considerable upgrades to be able to meet their future TN NPDES permit effluent limits, Ecology should develop practical Compliance Schedules and the State (and Federal government) should provide adequate funding to reduce the impact on local communities and ratepayers and provide the resources needed for WWTPs to upgrade their treatment systems in a timely manner.

Measurable Milestone Schedule Inconsistent with Ecology's 2050 Goal to Achieve DO WQS

Ecology's goal for the Draft PS Nutrient Reduction Plan is to achieve DO WQS by 2050; however, the Measurable Milestone schedule contained in Table 9 extends the milestones necessary to determine if DO WQS will actually be met until 2055. The milestone for 2050 in Table 9 is for Ecology and its partners to fully implement the PS Nutrient Reduction Plan, which is not equivalent to actually achieving DO WQS. Based on Table 9, Ecology will not actually identify if DO WQS are achieved until 2053, assuming it completes the milestone for 2053 of evaluating progress in achieving marine point source and watershed TN targets and running the Salish Sea Model to evaluate DO levels in Puget Sound. Ecology subsequently will not publish a progress report until 2055 detailing if marine point source and watershed TN targets and DO WQS have been met, and if not, to identify adaptive management steps in order to meet them.

CEAPC Recommendation

Ecology needs to revise the Measurable Milestone Schedule in Table 9 to complete the data collection and analyses in the years prior to 2050 and produce a subsequent progress report in 2050 to determine if DO WQS have been met to be consistent with the goal of achieving DO WQS. If the DO WQS have not been achieved, the progress report can identify additional adaptive management measures necessary to meet marine point source and watershed TN targets and corresponding DO WQS whose implementation can begin in or shortly after 2050, rather than 2055 as contained in the current Measurable Milestone Schedule. If necessary to identify if it has achieved its 2050 goal of achieving DO WQS, Ecology should move forward its first round of data collection and progress reporting, currently scheduled for 2040 and 2042, in order to provide adaptive management steps sooner and allow more time for them to impact TN load reductions and achievement of DO WQS.

CEAPC agrees that the phased implementation approach of the Draft PS Nutrient Reduction Plan is prudent; however, considering Ecology's goal is not to achieve DO WQS for another approximately 25 years and it has not yet committed to the more effective and efficient individual NPDES permitting approach for marine discharging WWTPs, it should ensure that it has a schedule in place that will clearly identify if DO WQS were achieved by 2050. If not, Ecology needs to react as quickly as possible to identify and implement additional steps necessary to achieve the DO WQS.

In sum, considering the current 30-year Measurable Milestone Schedule that extends beyond Ecology's goal of achieving DO WQS by 2050, Ecology needs to revise its Measurable Milestone Schedule to complete the necessary data collection, analyses, and reporting by 2050 to determine if DO WQS have been met. Completion by 2050 will also allow Ecology to take adaptive management steps as soon as possible after 2050 if the DO WQS are not achieved.

TN Loading Targets

TN loading targets for marine point sources and watersheds were designed to meet the biologically based numeric criteria for dissolved oxygen based on marine water aquatic life use category (e.g., extraordinary quality, excellent quality) ***or*** to limit the impact of local or regional sources of human-caused nutrient pollution on DO to 0.2 mg DO/l.[26] Under this criteria, if the human impact criteria is achieved, it is possible that TN targets can be met but DO WQS would not be, thus failing to achieve the overall goal of the Draft PS Nutrient Reduction Plan.

CEAPC Recommendation

The Draft PS Nutrient Reduction Plan should be revised to identify the options for the adaptive management approach that Ecology would propose in the event that TN targets are achieved and the limit of human impact criteria is met, but DO WQS in Puget Sound is not achieved. This scenario creates a conundrum, since Washington surface WQS natural conditions criteria sets a human impact allowance of 0.2 mg DO/l below natural conditions but the goal of the Draft PS Nutrient Reduction Program of achieving DO WQS would not be met.

Ecology should make clear that it will perform analyses in the areas of Puget Sound that fall into this scenario to determine if natural processes or seasonal conditions do not permit achievement of DO WQS as part of the adaptive management process.[27] If the determination of those analyses is that they can potentially be achieved, Ecology should clearly state that as part of the adaptive management process, the feasibility of further reductions in human-sources of TN will be evaluated in attempts to achieve DO WQS (i.e., biologically based numeric criteria for dissolved oxygen based on marine water aquatic life use category).

Model Scenario Inclusion of Non-Active WWTPs

Ecology utilized 2014 flow and loading data for marine point sources in its Salish Sea Model used to develop TN targets as part of the Draft PS Nutrient Reduction Plan. The data include TN Loads from a state WWTP and two industrial facilities that no longer actively discharge to Puget Sound. Their loads were included in the overall TN targets as a factor of safety to achieve the overall target TN load or as a reserve load that could be allocated to other TN sources.[28]

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26 Draft PS Nutrient Reduction Plan, page 31.
27 Draft PS Nutrient Reduction Plan, page 30.
28 Draft PS Nutrient Reduction Plan, page 36.

CEAPC Recommendation

CEAPC recommends that Ecology rerun the Salish Sea Model without the TN loads from the three facilities that no longer discharge to Puget Sound rather than keeping their TN loads as a factor of safety or allocating their TN loads to other WWTPs. Keeping TN loads in the model runs that no longer actively discharge is not a true factor of safety for achieving TN targets, but rather it artificially increases the modeled TN load and reduces modeled DO levels. Allocating TN loads that do not actually exist to underperforming WWTPs based on artificially high modeling determinations is inherently a flawed approach and disincentivizes underperforming WWTPs that receive the nonexistent TN allocations from diligently improving treatment performance or reducing flows to achieve their TN load targets and their WQBELs.

Individual WWTP Permits

As detailed earlier, CEAPC strongly recommends that Ecology address development of WQBELs and reductions in TN loads at WWTPs through individual NPDES permits. The following excerpt from the Draft PS Nutrient Reduction Plan reinforces that recommendation.

"Due to the potential large difference between the current nitrogen effluent levels discharged from marine point sources and the effluent levels required to meet the nitrogen targets in this plan, we acknowledge that permittees may need to make large investments in treatment plant infrastructure to add nutrient reduction technologies necessary to meet their WQBEL. Construction of such infrastructure can take many years, and in some cases, decades to complete. As a result, compliance schedules coupled with interim limits may provide permittees the time needed to properly plan, design, and construct the facilities necessary to meet WQBELs, while also requiring them to make step-wise progress in reducing nutrient loading."[29]

Concentrated Animal Feeding Operations (CAFOs)

As part of its Water Clean-up Plans, Ecology is relying on its NPDES general permits for several point sources, such as stormwater discharges from construction sites and industrial facilities and wastewater discharges from CAFOs. CAFOs are of particular importance for achieving TN reductions within watersheds containing them, since they are a major potential source of TN discharges, especially if manure/wastewater lagoon water is land-applied as a disposal method.

CEAPC Recommendation

Considering the oversized potential for TN loading from CAFOs relative to other NPDES permitted point sources, the Draft PS Nutrient Reduction Plan should identify the location of permitted CAFOs in the watersheds. Ecology should begin the process of identifying the additional monitoring requirements, BMPs, or general permit amendments to better characterize TN loads from CAFOs and improve their ability to achieve TN targets.[30]

[29] Draft PS Nutrient Reduction Plan, page 41.
[30] Draft PS Nutrient Reduction Plan, page 50.

Future Watershed TN Load Monitoring

Ecology details the factors it will consider when planning, identifying, and prioritizing its future monitoring program for tracking TN loads in Puget Sound's watersheds.[31]

CEAPC Recommendation

Ecology should include the following factors not currently included in the Draft PS Nutrient Reduction Plan:

- collection of samples during both wet weather and dry weather, since stormwater discharges are the primary non-point source that Ecology can influence through the NPDES permitting process
- collection of stream flow data at the time of sample collection for TN concentrations, since stream flows are required for calculations of TN loads

[31] Draft PS Nutrient Reduction Plan, pages 68 and 69.

Suquamish Tribe's Comments on Draft PSNGP (August 16, 2021)

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TRANSMITTED BY EMAIL

August 16, 2021

Eleanor Ott, P.E.
Washington State Department of Ecology
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eleanor.ott@ecy.wa.gov

RE: Draft Puget Sound Nutrient General Permit

Dear Ms. Ott,

The Suquamish people have lived, fished, hunted, and gathered in and around Puget Sound since time immemorial. The Suquamish Tribe takes its name from the traditional Lushootseed phrase for "people of the clear salt water" and is signatory to the 1855 Treaty of Point Elliot, in which the Tribe forever reserved the right to take fish in its usual and accustomed fishing areas (U&A). The Suquamish U&A includes the Puget Sound and associated waterbodies. Untreated or improperly treated wastewater which includes nutrients are discharged into these waters resulting in impacts to the Suquamish Tribe and its members. These discharges result in harmful algae blooms, posting of health advisories, and closure of beaches where Suquamish tribal members harvest shellfish. In addition, these discharges have and will continue to prompt recalls of commercially sold shellfish. All these impacts interfere with tribal member commercial and subsistence harvest activities that are reserved under the treaty.

General Comments

There is increasing evidence that nutrients discharged by King County Wastewater Treatment Division and others are impacting the Puget Sound ecosystem by contributing to low dissolved oxygen, acidification, harmful algal blooms, and changes to food web dynamics. These impairments pose a direct threat to aquatic life and the abundance of treaty-reserved resources. In the case of harmful algal blooms, it also threatens the Tribe's access and ability to harvest treaty reserved resources. Shellfish closures due to paralytic shellfish toxins in the central basin of Puget Sound were almost unheard of until the 1970s but had become commonplace by the 1990s and continue to the present. Approximately 38 tons of dissolved inorganic nitrogen are discharged from wastewater treatment plants to Puget Sound each year. Two-thirds come from the four largest plants, including West Point Treatment Plant and King County South Treatment Plant, both of which are King County Wastewater Treatment Division facilities.

In 2013, King County entered into a Consent Decree with the State of Washington, and the Environmental Protection Agency to address serious and ongoing sewage discharges from its wastewater treatment facilities and combined sewer outfalls that were in violation of the Clean Water Act. Notwithstanding a series of enforcement actions against King County, Clean Water Act violations have continued, including major releases from the West Point Treatment Plant.

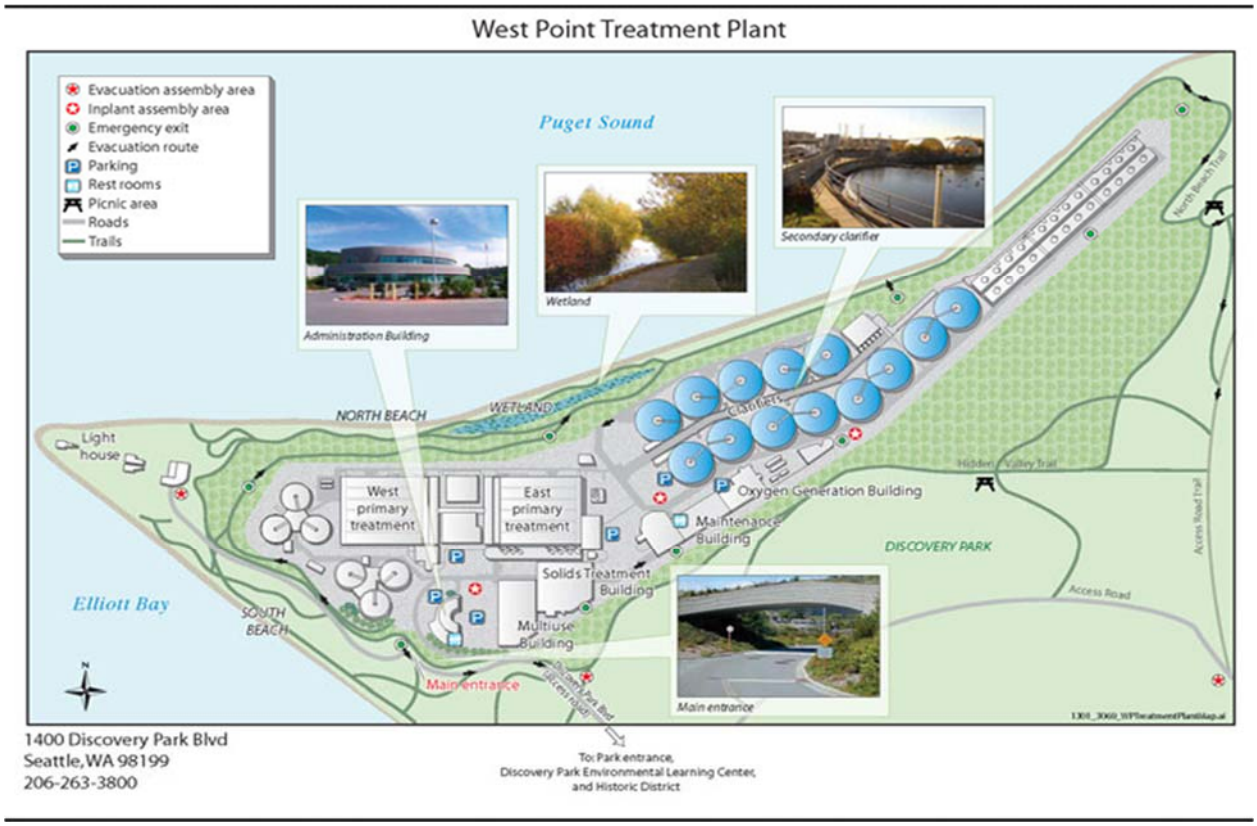
King County is responsible for a number of NPDES permit violations, discharging effluent wastewater into Puget Sound between 2015 and 2021. These discharges occurred at the West Point Treatment Plant, as well as other treatment facilities, and Combined Sewer Outfalls, on the shores of Centennial Park on Elliot Bay in downtown Seattle, and near Alki Beach in West Seattle.

The waters of Puget Sound and the entire Puget Sound are the Tribe's most treasured resource. We are obliged to protect these waters, not only for ourselves but for all who rely on them for healthy seafood, recreation, and cultural practices for the next seven generations (Suquamish Tribal Chairman Leonard Forsman). We acknowledge King County's investments to improve its wastewater treatment systems, but the Suquamish Tribe and its members are frustrated by ongoing sewage releases and NPDES exceedances in Puget Sound that include nutrient loads, which continue to harm marine water quality and the Tribe's ability to exercise treaty reserved rights and engage in cultural activities. We are running out of time and need swifter action. It is time to increase commitments in improving and protecting our shared waters.

The federal Clean Water Act requires that water quality standards protect existing beneficial uses. Any new expansion or discharge increase must be thoroughly reviewed to identify alternatives to degrading water quality. Local jurisdictions repeatedly state that they have made heroic efforts in determining how to best invest limited funds to produce the biggest benefits. We have heard in meetings and read in comments submitted that "we can't do everything, so we need to determine what the highest priority investments are." The investments jurisdictions make are not just in the physical infrastructure that make up the treatment facility, but investments in a healthy and recovered Puget Sound with abundant salmon and orca whales, and with clean and abundant shellfish beds that support tribal treaty rights without interruption or closures from frequent sewage spills (including CSO events) or from harmful algal blooms.

Membrane technology is repeatedly overlooked as a viable and feasible alternative. By applying membrane technology one can convert a traditional activated sludge system into a membrane bioreactor (MBR). Those differ from conventional systems in two ways:

1. In MBR applications the activated sludge tanks can be operated with a far higher concentration of bacteria. This leads to a higher treatment capacity at the same tank volume.
2. In MBR applications the treated clear water is not separated by means of gravity settling but by means of membrane filtration. Therefore there is no secondary clarifier necessary and the output quality is vastly improved. The Tribe has been told that limited area available makes most upgrades impossible yet secondary clarifiers take up almost half of the facility footprint (see West Point Treatment Plant map below).



Specific Comments

Section 1 Permit Coverage, Page 10 Exemptions

- It is stated that discharges from industrial (industrial discharges are not a significant contributor of nutrients) or privately owned (RCW 173-220) treatment plants. The Tribe objects to this exemption until sufficient data supporting this exemption is provided.
- Discharges from domestic WWTPs entering tributary watersheds to Washington waters of the Salish Sea, upstream of Ecology Ambient monitoring stations are also exempt. The Tribe objects to this exemption as the receiving waters may already be compromised.

Section 4(B) Narrative Effluent Limits for WWTPS with Dominant TIN Loads, Page 12

- Limits should be based on monthly average flows not the sum of monthly flows over one year. Flows during during dry summer months can significantly skew annual averages by averaging out high flow events effectively allowing discharges resulting in water quality violations during the rainy winter and spring months.

Section 4(D) Action Level Exceedance Corrective Actions, Page 17

- Action Level Exceedance Corrective Actions should include both short term and long term actions. Waiting potentially 5 years for an exceedance to be addressed and implementation of an action is unacceptable to the Tribe.

Section 57 Discharges to 303(d) or TMDL Water Bodies, Page 33

- Add additional language stating that discharges will not be allowed to receiving waters on the 303(d) list for dissolved oxygen (since nutrients contribute to low oxygen levels).
- There should be a larger role for TMDLs in this permit process. Provide additional detail regarding the approach that will be taken for both waters with a Total Maximum Daily Load (TMDL) and those without.

Section 9 Reporting and Recordkeeping Requirements, Page 35

- Are annual reports linked to monitoring to demonstrate performance, effectiveness and ensure that reductions are in fact occurring during the 5 year permit cycle?

Whereas the Suquamish Tribe generally supports the draft nutrient permit the Tribe urges DOE to take a conservative environmental approach and view this new permit as an opportunity to align wastewater investments with the recovery of the Puget Sound ecosystem and protection and restoration of the Tribe's treaty resources and access to them. Please keep us informed of project status and any relevant project related actions. You can contact me via email aosullivan@suquamish.nsn.us if you have any questions.

Sincerely,
Alison O'Sullivan
Senior Biologist, Natural Resources Department

Puget Soundkeeper Alliance's Comments on Draft PSNGP (August 16, 2021)

EARTHJUSTICE

August 16, 2021

VIA EMAIL and ONLINE SUBMISSION

Eleanor Ott, P.E.
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RE: Comments of Puget Soundkeeper Alliance, Draft Puget Sound Nutrient NPDES General Permit

Dear Ms. Ott:

INTRODUCTION

These comments on the Department of Ecology's ("Ecology") Draft Puget Sound Nutrient National Pollutant Discharge Elimination System General Permit (the "Permit") are submitted by Earthjustice on behalf of Puget Soundkeeper Alliance ("PSA"). PSA is a Washington non-profit environmental organization whose mission is to protect and enhance the waters of Puget Sound for the health and restoration of our aquatic ecosystems and the communities that depend on them. PSA engages its mission through monitoring and patrolling Puget Sound and its tributaries; through education, outreach, and advocacy with the community and regulators; and through pursuit of legal action, where necessary, to protect Puget Sound. PSA generally agrees that nutrient pollution from wastewater treaters can be addressed through a general permit, but objects to the Permit because it is not in compliance with state and federal requirements, does not create a pathway to actually meeting water quality standards, and because the Permit will do nothing to reduce nutrient pollution discharges to Puget Sound during the term of the Permit and potentially well afterwards.

BACKGROUND

I. NUTRIENT POLLUTANTS AND PUGET SOUND

A. Nutrient Pollutants

Many, if not most, of the nation's marine ecosystems are polluted by excess nutrients; both nitrogen and phosphorus. EPA, *Nutrient Criteria Technical Guidance Manual: Estuarine and Coastal Waters* [EPA Nutrient Guidance] at xvii and 1-1 (Oct. 2001). Furthermore, at least two-thirds of U.S. estuaries and marine coastal waters have been assessed as seriously degraded by chronic nutrient pollution (National Research Council 2000, Bricker et al. 2008). Water systems are considered impaired when the water fails to meet the standards required to protect specified designated uses. *Id*. Nutrient pollution can cause an increase in harmful algal growth, which in turn can result in reduced or depleted levels of oxygen, an imbalance of the ecosystem,

public health concerns, loss of critical habitat for beneficial aquatic life, greatly reduced biodiversity, and a general decline in fish and aquatic life. EPA Nutrient Guidance at 1-1 and 1-5, Burkholder and Glibert 2013 and references therein. Harmful algal "blooms" (outbreaks) have been linked to major fish kills, significantly affecting local recreational and commercial fisheries. Burkholder 1998, EPA Nutrient Guidance at 4. Blooms of certain cyanobacterial species produce toxins that can cause disease and death of beneficial aquatic life and humans. Chorus and Bartram 1999, EPA Nutrient Guidance at 1-1. Depletion of dissolved oxygen can cause stress and death in bottom-dwelling organisms such as sessile, ecologically, and commercially important marine shellfish. *Id.; see also,* Ecology, *South Puget Sound Dissolved Oxygen Study Interim Data Report* (Dec. 2008) at 13; Ecology, *Puget Sound and Straits Dissolved Oxygen Assessment* (2014) at 11.

Chronic nutrient pollution and a related array of impacts are present in Puget Sound. *Id.*[1] As acknowledged by Ecology on its own website and in the Permit Fact Sheet, "[d]ischarges of excess nutrients, particularly nitrogen, to Puget Sound from domestic wastewater treatment plants (WWTPs) are significantly contributing to low oxygen levels in Puget Sound." Permit Fact Sheet; *see also,* Khangoankar, T. et al., *Analysis of Hypoxia and Sensitivity to Nutrient Pollution in Salish Sea*, Jour. of Geophysical Research (2018).[2] According to Ecology, approximately 20 percent of Puget Sound is currently not meeting water quality standards for dissolved oxygen and Ecology's Salish Sea Model shows parts of Puget Sound failing to meet the standards for 120+ days, one third of the year or more. Information from the Environmental Protection Agency ("EPA") confirms that dissolved oxygen standards are not being met in Puget Sound and that those conditions are trending worse, not better. https://www.epa.gov/salish-sea/marine-water-quality.

About 70% of the anthropogenic nitrogen inputs to Puget Sound are contributed by wastewater treatment point sources, and nutrient pollution has been identified as a major source of water quality degradation to the Sound. Bounding Scenarios Report, Publication No. 19-03-001, Jan. 2019. The Puget Sound region (human population more than 4.5 million) is predicted to sustain a 40% increase (1.8 million more) by 2050 (Ott 2020). Ecology's Draft Permit will control the discharges from 58 publicly owned domestic wastewater treatment plants into the Sound. The total discharge ("action level") of these wastewater plants is estimated to contribute more than 28,463,000 pounds per year of highly bioavailable total inorganic nitrogen (TIN)—just one of many pollutants in the effluents—to the already-nutrient-degraded Sound. PSNGP

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[1] *See also* University of Washington, Puget Sound Institute, https://www.eopugetsound.org/magazine/is/nutrients and https://www.pugetsoundinstitute.org/2017/10/puget-sounds-growing-nutrient-problem/.

[2] More recent indications of Puget Sound being out of balance from excess nutrients (nitrogen and phosphorus), which has been exacerbated by warming trends and other impacts of climate change, can be seen in the "Blob's" extreme adverse impacts on aquatic ecosystems in the northeastern Pacific Ocean (NOAA 2019), explosions of jellyfish populations, and ocean acidification interfering with shellfish being able to form shells. https://crosscut.com/environment/2020/12/outdated-sewage-treatment-suffocating-fish-puget-sound.

Fact Sheet 2021. Clearly, to improve water quality and ecosystem protection, this Permit needs to accomplish significant reduction of effluent pollutants to the Sound from these dischargers.

Ecology has proposed this draft Permit purportedly to address the problem of excess nutrients in Puget Sound from wastewater treatment facilities. Domestic wastewater contains a high proportion of biologically available nitrogen and phosphorus, to such an extent that sewage sources are considered much more potent and high-impact than other nutrient pollution sources (Jarvie et al. 2006, Millier and Hooda 2011, Venkiteswaren et al. 2019). As stated in Ecology's Permit Fact Sheet, "WWTPs are the dominant land-based dissolved inorganic nitrogen (DIN) source during the low flow (summer) months" and "cumulatively contribute to DO impairments in other locations due to the water exchange that occurs between basins." PSNGP Fact Sheet 2021 at 30.

Unfortunately, the Permit as proposed will do little to nothing to control or reduce excess nutrient pollution in Puget Sound and the significant water quality impacts from that pollution. Rather, current pollutant levels will continue apace, and increase as the sources expand, for at least the next five-year permit term and potentially well into the future. As a result, the proposed Permit fails to meet the most basic requirements of state and federal law.

II. REQUIREMENTS UNDER THE CLEAN WATER ACT AND STATE LAW.

A. Federal.

Federal regulations prohibit the issuance of a NPDES permit when the conditions in the permit do not provide for compliance with all applicable requirements of the Clean Water Act and/or regulations promulgated under the Act, or when the imposition of conditions cannot ensure compliance with water quality standards. 40 C.F.R. §§ 122.4(a) and (d). Federal regulations require that each NPDES permit shall include technology-based effluent limits (TBELs) and such other more stringent effluent limits (e.g., water quality-based effluent limits or WQBELs) necessary to achieve water quality standards, including any state narrative criteria. *Id.* at § 122.44(a) and (d). Effluent limits must control all pollutants or pollutant parameters which will cause or contribute to (or have the *potential* to cause or contribute to) an excursion above any water quality standard, including narrative criteria. *Id.* § 122.44(d)(1)(i).

When developing effluent limitations as required by these provisions, the state must ensure that the level of water quality achieved through such limits meets water quality standards and is consistent with any applicable wasteload allocation. *Id.* § 122.44(d)(1)(vii). Permit effluent limits for publicly owned treatment works shall be stated as average weekly and average monthly discharge limitations. *Id.* § 122.45(d). Best management practices may be substituted for numeric effluent limits *only* where a numeric limit is infeasible. *Id.* § 122.44(k)(3).

Finally, federal regulations also require that permitting entities ensure that the discharge authorized by the permit will not further degrade waters. 40 C.F.R. § 131.12.

B. State.

In addition to federal requirements for NPDES permitting, the State is required, by statute and its own regulations, to ensure the highest level of protection for all Washington waters, and to that end, that the State require all known, available, and reasonable technology ("AKART") be applied to prevent and minimize the discharge of pollutants to the state's waters. RCW 90.48.010; 90.48.520; 90.54.020; WAC 173-226-070; *see also Wash. State Dairy Fed'n v. State of Wash.*, __ P. 3d __, 2021 WL 2660024 (Wn. Ct. App. 2021) at *6–8. AKART is required regardless of the quality of the receiving water. RCW 90.48.520; 90.54.020(b).

As with the Clean Water Act, no permit may be issued that causes or contributes to the violation of any water quality standard. RCW 90.48.520; WAC 173-201A-510(1). For general permits, Ecology must include such WQBELs as are necessary to meet water quality standards and to ensure that the discharges authorized by the permit do not cause or contribute to a violation of any water quality standard. WAC 173-226-070(2) and (3). WQBELs must be incorporated into the actual terms of the general permit (i.e., not included as assumptions or referenced as background considerations in non-permit materials on the administrative record) if they are necessary for a majority of dischargers covered by the permit. WAC 173-226-070(2)(a); *see also Wash. State Dairy Fed'n*, at *17. For wastewater dischargers, those limits must be expressed as average weekly and monthly quantitative concentrations and mass limitations. WAC 173-226-070(6)(b).

As with federal regulations, state regulations require that there shall be no degradation of water quality. WAC 173-201A-300, -310.

While the rules at both federal and state levels provide that a permitting agency may use compliance plans to allow a polluter time to come into compliance with new permit requirements, 40 C.F.R. § 131.15, WAC 173-226-180 and 173-201A-510(4)(a), compliance plans do not excuse or negate the requirements described above: that limits be explicitly stated in the permit and that the permitting agency determine those limits will ensure compliance with water quality standards.[3]

PERMIT CONTENTS

The Permit does not include effluent limits for nutrients, numeric or otherwise. Instead, the Permit suggests best management practices ("BMPs") only for the purpose of polluters staying within action levels, set at their currently highest (99%) level of nutrient pollutant discharges. Because current levels represent a situation where there has never been an effluent limit, they cannot now suddenly be considered an effluent limit.

[3] Further, to the extent that they are allowed at all, compliance plans should not extend beyond the 5 years of the permit.

Ecology claims that it is infeasible to develop numeric effluent limits until modeling is complete. Draft PSNGP Fact Sheet 2021, p.34. Ecology claims infeasibility in part because each polluter and its situation, as well as the receiving water location, is unique. At the same time, Ecology claims that a general permit for nutrient pollution discharges from wastewater treatment plants is appropriate and warranted. General permits are allowed under state regulations only for categories of dischargers that meet *all* of the following requirements:

> (i) Involve the same or substantially similar types of operations; (ii) Discharge the same or substantially similar types of wastes; (iii) Require the same or substantially similar effluent limitations or operating conditions, and require similar monitoring; and (iv) In the opinion of the director are more appropriately controlled under a general permit than under individual permits.

WAC 173-226-050; *see also* 40 C.F.R. § 122.28. It is unclear to PSA how nutrient pollution from wastewater dischargers to Puget Sound is unique and case-by-case to the extent that Ecology cannot possibly develop and impose numeric effluent limitations that are AKART, and yet also meet the above requirements for a category of polluters that can be regulated by a general permit. Ecology cannot have it both ways.

Remarkably, Ecology assigns to the polluters themselves the task of setting effluent limits and determining what constitutes AKART for the treatment and limitation of nutrient discharges from wastewater treatment plants. Moreover, the Permit gives the polluters the full five years of the Permit to study and plan.

The Permit requires no reductions in nutrient pollution from any discharger covered by the Permit. Rather, Ecology requires polluters to attempt to optimize their current performance—yet Ecology states this is to occur "reasonably" without investing in "costly upgrades or...infrastructure improvements." PSNGP Fact Sheet 2021, p.42; Permit S.4.B. and D., 12 and 17–18. Ecology sets an "action level" equal to the top end (99th percentile) of recent levels of nutrient pollution from each pollutant discharger. Permit S.4.B., 13–14. If that action level (that is, the high end of current pollutant levels) is exceeded in two consecutive years or three times total over the entire five years of the Permit, the polluter that exceeded the action level must undertake a year's worth of planning to propose action to Ecology for bringing its nutrient pollution discharges down by at least 10% within five years (which, depending on the magnitude of the exceedances may still be in excess of the 99th percentile). Permit S.4.D., 17–18. Generally, the permit sets a pollutant load cap at nearly the highest level of historic pollutant discharges and creates a system in which compliance is measured across *years* of the permit term and exceedances don't lead to noncompliance—let alone penalties. This is not a cap, it's a suggestion.

Ecology also requires the polluters to study and report on their utility fee structure and specifically to assess whether certain communities within a polluter's service area are disproportionately affected by the fee structure and what alternative fee structures may be. Permit S.4.E.5.d.

These provisions fail to meet minimal requirements for permitting under federal and state law. They will do nothing to reduce the already excessive nutrient pollution load to Puget Sound that is having devastating effects. For these reasons, PSA objects to the proposed Permit.

OBJECTIONS TO THE DRAFT PERMIT

I. THE PERMIT FAILS TO INCLUDE NUMERIC EFFLUENT LIMITS IN VIOLATION OF STATE AND FEDERAL PERMITTING REQUIREMENTS

The Permit makes no findings regarding AKART and imposes no numeric effluent limits, AKART or otherwise, on nutrient discharges by wastewater treatment plants into Puget Sound. As currently drafted, the Permit is indefensible both legally and factually.[4]

A. The Permit Fails To Address A Significant Part Of The Problem In Failing To Include Phosphorus.

Despite Ecology's repeated acknowledgment that both nitrogen and phosphorus pollution degrade surface waters including the Sound, Draft PSNGP Fact Sheet 2021, the Permit fails to consider any wastewater treatment plant effluent limits for phosphorus. Ecology's stated basis was that a grey-literature report (Newton and Van Voorhis 2002) "documented that nitrogen is a limiting nutrient for Puget Sound." The cited report contains no such documentation. It describes monitoring of several areas in the Sound, including measurements for phosphate, but not total phosphorus. Algae luxury-consume phosphate (Wetzel 2001); that is, they take up much more than they need when it is available and store it in their cells. For that reason, measurement of total phosphorus is needed to assess the phosphorus potentially available to the algae. Moreover, the report includes nothing about attempts to assess the primary nutrient limiting algal growth in the Sound. It does mention experiments that were mistakenly described as having simulated anthropogenic nutrient loading of "excess" nutrients—but the levels of ammonium and phosphate added (~420 µg/L and ~100 µg/L, respectively) were an order of

[4] PSA concentrates its comments on portions of the Permit applicable to the larger dischargers (called the "Dominant WWTPs"). However, PSA questions that all smaller dischargers should be exempt from any of the Permit requirements and reserves the right to object. There is no information in the Permit or Fact Sheet concerning where and how much the smaller WWTPs discharge their pollutants. For example, is it to an area that is already failing to meet dissolved oxygen standards? There is no information on sensitivity of receiving waters or growth rates for the smaller WWTPs (defined by Ecology as collectively contributing ~1% of the domestic point source anthropogenic load) which may dictate requiring them to have an effluent limit, when it is easier to address the problem prior to more growth. Examples of facilities that require more information and disclosure—and that may be of concern for lack of limits—are Bainbridge, Mukilteo, Sequim, and Port Townsend (growing communities that are more affluent than surrounding areas). In addition, Penn Cove and Coupeville are of concern as possibly discharging to sensitive shellfish waters.

magnitude lower than effluent concentrations from most wastewater treatment plants discharging to the Sound.

The General Permit reflects Ecology's failure to apply present scientific understanding about the two basic ways that nutrient pollution affects aquatic ecosystems—through *supplies (concentrations)* of both nitrogen and phosphorus, and through the *balance or proportion* of N and P supplies, commonly considered as the N:P ratio (Sterner and Elser 2002, Burkholder and Glibert 2013, and references therein). Large supplies of highly bioavailable N and P from the many domestic wastewater treaters covered in the Permit, in highly skewed proportions relative to historic background, are being discharged into the Sound. Control of one of these two major nutrients without control of the other, as Ecology has directed for Puget Sound in this Permit, drives aquatic ecosystems dramatically out of balance and selects for harmful algae at the base of the food web. These algae are poor in food quality for beneficial aquatic animals. The "domino effect" of poor food quality adversely affects the entire food web, from herbivores to top predators (Glibert et al. 2011 and references therein). To protect and improve aquatic ecosystems degraded by nutrient pollution, the highly bioavailable forms of nitrogen and phosphorus in domestic sewage must be co-managed; that is, they must be significantly decreased in concentration, and in the right proportion to re-establish the Sound's N:P balance (Glibert et al. 2011 and references therein, EPA 2015).

Yet, remarkably, there is *no mention* of phosphorus in the Permit. This oversight must be corrected and phosphorus must be regulated by the Permit.

B. Total Nitrogen Must Be Controlled.

Even with the Permit's central focus on effluent TIN, it still falls far short of protecting the receiving waters of the Sound even from continued degradation by nitrogen. While TIN is well known to stimulate algal growth (Glibert et al. 2011, 2016, and references therein), *organic* nitrogen constituents in the total Kjeldahl N (TKN) component of the effluents include stimulatory substances as well. For example, urea is the major organic component of human urine. Various harmful algae, including well-known bloom formers in Puget Sound such as *Heterosigma akashiwo*, can thrive on urea as a nitrogen source (Glibert et al. 2006 and references therein). Urea has also been related to increased toxicity of harmful taxa such as *Pseudo-nitzschia australis*, important in West Coast blooms (Howard et al. 2007). Ecology's eventual target of 3 mg TIN/L therefore will not be sufficiently protective of the Sound ecosystem. The agency's target should be *total* nitrogen; and as previously noted, sewage treatment processes that have been available for decades reliably decrease effluent total nitrogen to 3 mg/L and lower (U.S. EPA 2007). Total N, not TIN, should be the 3 mg/L target.

C. The Permit Fails To Meet Requirements For TBELs/AKART.

As set forth above, both federal and state law require imposition of effluent limits. Under state law, Ecology must determine all known, available, and reasonable treatment technology and require that all pollutants be prevented and treated with it, regardless of the status of the

receiving water. It is Ecology's affirmative duty to assess and make a formal determination, when issuing a permit, as to what constitutes AKART and to then include that requirement in the permit. *Port of Seattle v. Ecology*, 2004 WL 2372063 (PCHB Oct. 18, 2004); *see also,* 1983 Atty Gen. Op. No. 23 at 9.

Ecology admits that it has failed to do so here. Ecology's statements show the agency is aware that technology limiting nitrogen discharges to 3 mg/L and phosphorus in the range of 0.05 to 0.3 mg/L is known, reasonable, and in use (for decades) by wastewater dischargers elsewhere. *See, e.g.,* Permit S.4.E.5.e; *see also* Biological Nutrient Removal Processes and Costs, EPA Fact Sheet, June 2007.[5] Treatment to 3 mg/L nitrogen and 0.05 to 0.3 mg/L phosphorus has been described as readily available and current technology. Using current technology, it is possible to remove effluent TIN to less than 1 mg/L after coagulation and filtration. Even allowing for residual recalcitrant dissolved organic nitrogen—dissolved organic nitrogen that is not removed during the wastewater treatment process—of 0.5 to 1.5 mg/L in municipal wastewater, an effluent limit for total nitrogen of less than 3 mg/L can be achieved.[6] This is not 'new' technology. EPA's assessment of biological nutrient removal dates to 2007—well over a decade ago. Other facilities, in states such as Florida, Virginia, and Michigan, have been meeting 3 mg/L nitrogen and 0.3 mg/L phosphorus limits, or lower, since the mid-2000s. Biological nutrient removal to 3 mg/L nitrogen and at least 0.3 mg/L phosphorus is AKART and must be required for all dischargers as an effluent limit in this Permit.

As explained above, Ecology mistakenly asserts that it is "infeasible" to include effluent limits in the Permit. Ecology is incorrect. Effluent limits of 3 mg/L nitrogen and 0.3 mg/L phosphorus are known, achievable, and reasonable, and have been for decades. Information abounds about the treatment technologies that can achieve these limits. The cost-effective technologies that can be used to set 3 mg/L nitrogen and 0.3 mg/L phosphorus as effluent limits are "off the shelf" and Ecology's claim of infeasibility is absolutely contrary to the facts.

Ecology also tries to claim infeasibility by pointing to "site-specific" differences that require careful study/modeling and proposals from the polluters themselves. This assertion is also baseless. The literature demonstrates that technology can commonly achieve 3 mg/L nitrogen and 0.3 mg/L phosphorus and, in some situations, even better. If concerned about "site-specific" situations, Ecology should set 3 mg/L nitrogen and 0.3 mg/L phosphorus as the baseline and require assessment over the course of the Permit for more stringent limits if necessary. Finally, Ecology's own use of a General Permit suggests that there are few differences among WWTPs in this regard. "Site-specific" conditions should not result in anything less stringent than 3 mg/L total nitrogen and 0.3 mg/L total phosphorus.

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[5] EPA's fact sheet on biological nitrogen removal notes that some facilities may be able to achieve nitrogen concentrations below 3 mg/L due to site-specific conditions.

[6] Barnard, James L., Biological Nutrient Removal: Where we have been, Where we are going?, Water Environment Federation, WEFTEC 2006.

The Permit's failure to include effluent limits of 3 mg/L nitrogen and 0.3 mg/L phosphorus for all dischargers (or at least the dominant dischargers) is a violation of 40 C.F.R. §§ 122.44(a) and 122.45(d) and RCW 90.48.010; 90.48.520; 90.54.020 and WAC 173-226-070.

II. THE PERMIT DOES NOT REQUIRE ADEQUATE ASSESSMENT OF COMPLIANCE.

WQBELs are supposed to be based on compliance with the state's Surface Water Quality Standards (Chapter 173-201A WAC). Sufficient data must be available to enable assessment of compliance. Yet, even for TIN, Ecology's main target among effluent constituents, the Permit requires only monthly sampling for evaluation on an annual and seasonal basis. The Permit describes a numeric action level for TIN only (in total pounds per year), and an AKART analysis to (eventually) meet Ecology's proposed 3 mg TIN/L target "(or the equivalent load)".

The exceedingly vague description of this "planning" is a major concern, considering that most of the dischargers covered in this Permit presently have *much* higher TIN concentrations in their effluents (mean, 20 mg/L; maximum 45.7 mg/L). Only 8 of the 58 dischargers presently have TIN levels below 5 mg/L; moreover, most of them are only at about one-third to half of their permitted capacity. Without requiring major alterations of most of these WWTPs, it seems highly unlikely that they will attain, even "eventually," a 3 mg N/L target.

Another important question that is not addressed by the draft Permit is how compliance in achieving the "eventual" target will be assessed. To protect the Sound from continued chronic degradation by the effluents, monitoring frequency should be weekly for the important nutrient parameters TKN, ammonia, nitrate+nitrite, and total phosphorus (note: TN = TKN + nitrate+nitrite). The target should be set as a weekly maximum, applicable year-round. Violations should be infrequent rather than routinely allowed, which could easily occur if the target was set as a seasonal average.

III. THE PERMIT FAILS TO ENSURE THAT DISCHARGES AUTHORIZED UNDER THE PERMIT DO NOT CAUSE OR CONTRIBUTE TO VIOLATIONS OF WATER QUALITY STANDARDS.

Independent of the failure to include limits that are AKART, the Permit also violates the requirements to ensure that it does not cause or contribute—or even have the *potential* to cause or contribute—to a violation of narrative and numeric water quality standards. Ecology admits that large areas of Puget Sound already violate numeric standards for dissolved oxygen. Roberts et al. 2014. It is likely that the areas of impairment—violations of dissolved oxygen standards—are much more extensive than reflected on the latest section 303(d) list of impaired waters or than monitored to date. *See* PSNGP Fact Sheet. Further, narrative standards are plainly violated considering the incidence of algal blooms, acidification, and related adverse impacts to aquatic

life, exacerbated by warming temperatures.[7] Chronic nutrient pollution to Puget Sound is impairing the designated uses of the Sound, resulting in harmful algal blooms, fish kills, contamination of seafood with algal toxins, and imbalances in the overall ecosystem. Those are violations of narrative standards that are supposed to protect the chemical, physical, and biological integrity of the Sound.

Ecology has already identified wastewater treatment plant polluters as the dominant cause of dissolved oxygen violations (and likely the cause of narrative standard violations) in the Sound. *See*, Ecology's application of the Salish Sea Model (SSM) as described in the Draft PSNGP Fact Sheet 2021. Further, at a minimum, even if a polluter is not the "cause," further addition of nutrients to this already impaired and failing ecosystem will contribute to ongoing violations of water quality standards. Such violations should be addressed with numeric WQBELs applied to all dischargers (large and small) in the Permit. 40 C.F.R. § 122.44(d) and RCW 90.48.520, WAC 173-201A-510(1), and WAC 173-226-070(2) and (3).[8] Finally, it is not necessary for Ecology to pinpoint either cause or contribution to a particular degree of certainty. The law requires Ecology to impose WQBELs where there is even the *potential* that a polluter may cause or contribute to an excursion of water quality standards. *Id.*[9] At the minimum, Ecology must restore the natural N:P ratio in the Sound, as explained above, by setting effluent limits on wastewater polluters at levels that will no longer contribute to water quality impairments. That step is critically needed to restore the Sound's ecosystem and create needed resiliency for the expected additional impacts of climate change.

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[7] Ecology has been negligent in developing numeric criteria for nutrients in Puget Sound. *Twenty-one years* ago, the National Research Council (2000) and EPA (2000a) identified a critical need for states to develop numeric nutrient criteria for U.S. waters. Even then, the problem of nutrient pollution was well-known and adversely affecting all of the nation's waters. EPA provided extensive guidance and research to aid states in carrying out their obligations under 33 U.S.C. § 1313(c).

[8] The Permit's lack of a WQBEL also demonstrates a failure to comply with anti-degradation obligations under federal and state law. 40 C.F.R. § 131.12; WAC 173-201A-300, -310. If wastewater polluters are causing or contributing to a violation of water quality standards, then they are also degrading the water quality of Puget Sound. Even areas of the Sound that may be meeting water quality standards (or where violations have not yet been detected) must be protected under the anti-degradation requirements. Ecology identifies much of the Sound as excellent or extraordinary water quality, a level of quality that must be protected. There is no demonstration in the Permit or accompanying materials that Ecology engaged in an adequate anti-degradation analysis or included limits necessary to ensure that any area of the Sound does not degrade due to wastewater nutrient pollution.

[9] Plainly this language is meant to address the kind of argument Ecology is making to avoid WQBELs in this Permit. Delays in controlling pollutants can always occur where polluters or reluctant regulators search for the perfect information. That kind of delay in controlling pollutants is directly contrary to the very intent and purpose, as well as specific directives, in the Clean Water Act and all applicable regulations here which is to be proactive, to protect (not just restore after the fact), and to be action-forcing in that protection.

Ecology has failed to do the required analysis for WQBELs and has shunted off that obligation (thereby adding a new, unnecessary time lag between permit and water quality standard attainment) to the polluters themselves. Ecology has impermissibly done so despite knowing standards are currently violated, the polluters that are the subject of the Permit are the cause (or contributors) to that violation, and that the nutrient pollution dischargers will continue to make it worse. Ecology knows that technology is available to impose effluent limits to at least curb some of that problem. Ecology is disregarding express legal requirements to ensure that no permit is issued that will cause or contribute to a violation of water quality standards by asking the polluters causing the problem themselves to 'look into it and five years from now propose a plan.' The statutory and regulatory obligation is Ecology's, and the final permit must conform to this requirement and Ecology's obligation met.

It seems clear that Ecology does not plan to address this problem at the five-year mark either, because each of those plans will need to be vetted and some period of time for the process of implementation be allotted. The Permit fails to set clear timelines for the ultimate approval and implementation of any pollutant management plans. Each plan submitted to Ecology by the end of this Permit term will need to be reviewed and approved by the agency—a potentially onerous task that should not be rubber stamped and will thus likely take some time to work through. The Permit is setting in place a process which will lead to years of planning without implementation, delays without deadlines, and exceedances without compliance that could lead to a decade or more of non-capped and unabated nutrient discharges into the Sound. Under this Permit, nutrient pollution will continue to wreak havoc in Puget Sound for another decade or more before Ecology takes meaningful action to require polluters to reduce their pollutant loads. By then the problem will have worsened considerably, considering that chronic nutrient pollution is well known to push waterbodies into a 'feedback loop' of harmful algal blooms, die-offs, oxygen depletion during decomposition of blooms, and release of nutrients to fuel additional harmful algal blooms (Burkholder and Glibert 2013, and references therein).

The Permit must include numeric WQBELs for all dischargers of nutrients to Puget Sound. Failure to do so violates 40 C.F.R. § 122.44(d) and RCW 90.48.520, WAC 173-201A-510(1), and WAC 173-226-070(2) and (3).

IV. THE PERMIT IMPERMISSIBLY ALLOWS "SELF-REGULATION."

As set forth above, in this Permit Ecology shifts its statutory and regulatory obligations to the polluters themselves. Ecology fails to set numeric effluent limits, instead directing the polluters to study and suggest limits over the five-year permit duration (both AKART and WQBELs). Ecology instructs polluters to obey the law and not "cause or contribute to violations of water quality standards," while knowing that polluters are already doing so and will continue to do so under the proposed terms of the Permit. As a result, the Permit fails to regulate and wrongly allows impermissible self-regulation. *See, Envt'l Def. Ctr. Inc. v. EPA*, 344 F.3d 832, 855–56 (9th Cir. 2003); *Puget Soundkeeper Alliance v. Ecology*, PCHB Nos. 07-021 et al., 2008 WL 5510413 at *30, ¶ 29.

Similarly, the action level and planning sections of the Permit do nothing to ensure that water quality standards will be met or that nutrient problems in Puget Sound will not worsen. Rather, the action level is set at the highest end (99%) of what wastewater treatment polluters have been discharging for the last several years. If the action level is exceeded for two consecutive years, the polluter has a year to *propose* a remedy to Ecology to "reduce the most recent calculated annual effluent nitrogen load by at least 10%" within five more years. PSNGP Fact Sheet at 41; Permit S.D.1.c. That is, the plan is to reduce from the exceedance level by 10% and give the polluter five years to do it. If the action level is exceeded three times in the five years of the permit, then again, the polluter must propose a remedy to Ecology for 10% reduction in effluent nitrogen. PSNGP Fact Sheet. There would be more than five years of Permit exceedances before that problem was even known. For example, in situations where an action level is exceeded for years 1, 3, and 5 of the permit term (i.e., not exceeded two years consecutively, but three out of five years of the permit term), a remedial action plan would not need to be developed until year 6, and could take until year 11 to be met. This system builds in years—or decades—of potential exceedances of nutrient limits and seems to intentionally limit monitoring, transparency, and oversight. Under the terms of this draft Permit, there could be years of illegal discharges before even Ecology is made aware of a problem—let alone the public. Thus, it is likely, given the built-in time lags, that exceedances of this generous level of pollution will result in *increased* nutrient pollutant loading to the Sound during and after the term of this Permit.

Indeed, there is no rational basis for concluding that wastewater treaters will do anything more than annual reporting or monitoring. Monthly, weekly, daily, and continuous monitoring is the norm across most pollutant types, and the development of real-time averages keyed to annual limits allows facilities—and regulators—to spot problems early and begin to correct them as they arise. The Permit will have zero positive impact on nutrient pollutants discharged to Puget Sound for the next five years and beyond (likely the next 10 years). Instead, the Permit will likely allow pollution in the Sound to worsen during that time. That adverse effect cannot easily be reversed. Ecology should set clear numeric limits in this Permit and ensure that they are implemented as soon as possible within the Permit term.

V. THE PERMIT SHOULD REQUIRE A MORE COMPREHENSIVE ASSESSMENT AND PLAN TO ADDRESS DISPARATE IMPACTS.

While PSA commends Ecology for attempting to incorporate environmental justice concerns into the Permit, Permit S.4.E.5.d., Ecology overlooks important considerations that should be included for a more comprehensive assessment and plan to address disparate impacts.

The Permit requires only that the permittee identify communities within the pollutant discharger's "service area" that are communities of color, Tribes, indigenous communities, and low-income populations. *Id.* The Permit instructs pollutant dischargers to perform an affordability assessment to identify how much "overburdened" communities can afford to pay

for wastewater utility. The Permit then directs pollutant dischargers to propose alternative rate structures to prevent adverse effects or rate increases on populations with economic hardship. *Id.*

The Permit should also require that the pollutant dischargers identify communities disproportionately affected by the failure to regulate and control nutrient pollution to the Sound. That analysis should not be confined to "service areas," as communities other than a polluter's rate-payers may be more adversely affected than rate-payers. Tribes in particular have been, are, and will be disproportionately adversely affected from the effects of low dissolved oxygen, increased acidification, increased temperature, and toxic algal blooms. Ecology is perpetuating its fundamental failure to address this problem, thus continuing to exacerbate harm to those communities and serving to externalize the costs of pollution.

The Permit should also require dischargers to identify communities within the service area with incomes above national median income. Such communities can better bear utility costs and those communities are likely putting a higher burden on water infrastructure. Information concerning those communities should be a necessary and integral part of the assessment, to design proposals for alternative rate structures that are more equitable.

The Permit should require the dischargers to identify how many funding burdens are placed on water utility fees and whether they are being transparent about those fees and hidden taxes. This analysis should include an assessment of how state funding and regressive taxation (or lack of income taxes) affect the ability of dischargers to equitably pay for urgently needed pollution controls. *See e.g.* https://mannyteodoro.com/?p=2738 for a thorough assessment of the inequities in current water rate structures and how to address them.

Finally, the assessment must include an analysis of rates for Puget Sound wastewater treatment as compared to comparable cities such as Portland, San Francisco, and Berkeley or communities around and near Chesapeake Bay.

VI. ECOLOGY'S STATEMENT REGARDING POTENTIAL TRADING FOR NUTRIENT POLLUTANTS IS PREMATURE AND UNSUPPORTED.

In the Fact Sheet accompanying the Permit, Ecology states that it intends to allow trading on a watershed scale. This statement is premature, unsupported by the facts of the situation, and must not come to fruition in this Permit's terms.

First, to "trade" Ecology must understand exactly what is necessary to bring the load in Puget Sound down (it is already violating water quality standards and discharges cannot contribute to that violation) and must set effluent limits such that there is a measure against which any potential trade would occur. It is essentially not possible to "trade" narrative limits—nor to set a trading program without clear caps, a thorough understanding of other sources affecting the "capped reservoir," and locked-in enforceable provisions for addressing noncompliance. Trading in the almost wholly unregulated situation represented by the Permit is simply moving what Ecology knows to be a current excess of nutrient pollution around in the

Sound, effectively moving deck chairs on the Titanic. This is unacceptable and must be rejected as an option at the outset.

Second, trading as proposed by Ecology is directly contrary to statements and claims elsewhere in the Permit and Fact Sheet that all nutrient discharges and control thereof must be very site-specific and unique and nutrients respond/express very differently in different parts of the Sound. That is why, Ecology claims, Ecology can't set effluent limits/AKART or WQBELs. Given that set of facts, Ecology cannot very well allow trading either. To do so under Ecology's stated lack of knowledge regarding specifics within the Sound will only lead to irreversible mistakes in overloading already polluted areas that are already exceeding water quality standards. This is an unacceptable risk.

PSA wholly objects to nutrient trading in Puget Sound with this Permit.

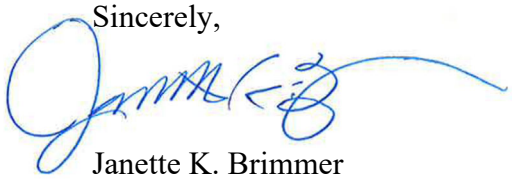
CONCLUSION

The Permit will result in no nutrient reductions, and may ultimately result in increases to nutrient pollution that is already harming Puget Sound. The failure of the Permit to set TBELs/AKART limits and WQBELs violates the law. Ecology must act now to reverse damage that has already occurred and to ensure resiliency in the face of climate change. Finally, Ecology must go further to address the inequities of environmental impacts from excess nutrients. PSA urges Ecology to revisit the Permit for all the reasons set forth above. The Permit must:

1. Set effluent limits that are AKART, pursuant to state law that must be fully implemented by the end of the Permit term;
2. Set water quality-based effluent limits that ensure that discharges authorized by this Permit will not cause or contribute to violations of water quality standards that must be fully implemented by the end of the Permit term;
3. During the period of time that the dischargers are implementing the AKART and WQBELs, cap monthly nutrient inputs to the Sound from covered wastewater treatment plants at a level significantly lower than the 99% trigger in the draft Permit and provide for noncompliance triggers should there be any exceedance on any month;
4. Require real-time monitoring and regular "rolling" monthly compliance targets to allow for early intervention and mitigation of exceedances;
5. Ensure that any remedial requirements for exceedances are not only developed, but implemented in as short a period as possible so as to limit the deleterious effects of illegal nutrient discharges;
6. Address environmental justice as described above; and
7. Contain all other such requirements necessary for meeting water quality standards.

Thank you for the opportunity to submit comments on this critically important issue. Please do not hesitate to contact the undersigned with any questions.

Sincerely,



Janette K. Brimmer
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cc: Puget Soundkeeper Alliance

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WEC & Suquamish Tribe's Proposed Legal Issues, *Puget Soundkeeper Alliance v. State of Washington Department of Ecology*, PCHB No. 21-082c

(Feb. 1, 2022)

POLLUTION CONTROL HEARINGS BOARD

STATE OF WASHINGTON

PUGET SOUNDKEEPER ALLIANCE, KING COUNTY, CITY OF TACOMA, WASHINGTON ENVIRONMENTAL COUNCIL, SUQUAMISH TRIBE, CITY OF EVERETT, CITY OF BREMERTON, BIRCH BAY WATER AND SEWER DISTRICT, ALDERWOOD WATER & WASTEWATER DISTRICT, PIERCE COUNTY, and CITY OF EDMONDS, Appellants, v. STATE OF WASHINGTON DEPARTMENT OF ECOLOGY, Respondent.	PCHB No. 21-082c APPELLANTS WEC'S and SUQUAMISH TRIBE'S LIST OF PROPOSED LEGAL ISSUES, WITNESSES & EXHIBITS FOR PRE-HEARING CONFERENCE

In accordance with the Board's letter to the Parties dated January 7, 2022, Appellants Washington Environmental Council ("WEC") and Suquamish Tribe ("Suquamish" or "Tribe") submit the below list of proposed legal issues and preliminary identification of witnesses and exhibits.

WEC and Suquamish have conferred with Appellants Puget Soundkeeper Alliance and reached agreement that the proposed legal issues included in this filing are appropriate to be

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addressed in this case. WEC and Suquamish will not provide briefing or testimony on each of the issues, but do not oppose another party's right to do so. WEC and Suquamish reserve the right to join any issue raised by any other party in the matter, to advocate for new or rephrased issues to be included in the Prehearing Order, and to move to amend the Prehearing Order. The identification of witnesses and exhibits pertains to WEC and Suquamish only.

A. PROPOSED LEGAL ISSUES

1. Whether the Nutrient Permit's failure to impose numeric or other sufficiently specific, protective, and enforceable effluent limits on all dischargers of nutrient pollution to Puget Sound violates the requirements to control all pollution discharges with all known, available and reasonable methods of prevention, control and treatment (AKART) under Washington law?

2. Whether the Nutrient Permit's failure to impose numeric effluent limits of 3 mg/L nitrogen and 0.3 mg/L phosphorus for at least all dominant and moderate dischargers of nutrient pollution to Puget Sound violates state and federal law?

3. Whether the Nutrient Permit authorizes discharges that cause or contribute to a violation of water quality standards, or have a reasonable potential to cause or contribute to a violation of water quality standards, in violation of state and federal law?

4. Whether the Nutrient Permit authorizes discharges that fail to protect designated uses of waters in violation of state and federal law?

5. Whether the Nutrient Permit authorizes discharges that degrade Puget Sound in violation of state and federal law?

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6. Whether Ecology's failure to determine and require AKART in the Nutrient Permit constitutes impermissible self-regulation contrary to the requirements of state and federal law?

7. Whether the Nutrient Permit's "Best Management Practices" (BMPs) fail to qualify as effluent limitations under federal law and AKART under state law?

8. Whether the Nutrient Permit's terms and conditions fail to constitute best management practices in violation of 40 CFR § 122.44(k)?

9. Whether the Nutrient Permit's failure to require adequate assessment of compliance by (1) requiring insufficiently frequent monitoring overall and (2) requiring insufficiently frequent monitoring for phosphorus, total nitrogen, and organic nitrogen specifically is arbitrary and capricious and contrary to state and federal law?

10. Whether Ecology's choice of upper confidence limits and monitoring frequency to establish action levels and to determine when action levels are exceeded for Dominant and Moderate Loaders is arbitrary and capricious and contrary to state and federal law?

B. APPELLANTS' WITNESS LIST

1. Mindy Roberts, Ph.D. Dr. Roberts is the Puget Sound Program Director at WEC. Dr. Roberts will provide fact testimony with respect to WEC's participation in the public process associated with Permit development, and WEC's standing to bring this appeal. Dr. Roberts has environmental engineering degrees from the University of California Berkeley (BS), Massachusetts Institute of Technology and Woods Hole Oceanographic Institution (MS), and the University of Washington (Ph.D.). She is a registered professional engineer in the State of Washington and Commonwealth of Massachusetts, and has over 25 years of experience in quantifying loads of pollution to receiving waters, assessing impacts of wastewater on water

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quality, and three-dimensional hydrodynamic and biogeochemical modeling of marine waters in a regulatory context. Dr. Roberts will provide expert testimony with respect to modeling, statistics, and other technical aspects of the Permit.

2. Tribal leader or staff, Suquamish Tribe. A representative of the Tribe will testify as to the Tribe's interest in this appeal, the Tribe's subsistence, ceremonial, and commercial fisheries in Puget Sound, and the impacts of water quality on the Tribe's fisheries.

3. WEC and Suquamish may identify additional witnesses, including an additional expert witness or witnesses, as needed, to address the legal issues developed by the various parties.

4. WEC and Suquamish reserve the right to call additional witnesses, including staff or consultants associated with the Department of Ecology or cross-appellants, as well as any rebuttal witnesses.

C. APPELLANTS' EXHIBIT LIST

1. WEC and Suquamish intend to rely upon documents in the Permit file, including agency reports, published reports, and public comments. In addition, Dr. Roberts may develop an expert report, including documents supporting the expert opinions contained in the report.

2. WEC and Suquamish may rely upon additional documents obtained during discovery or identified or developed by any of the various parties during the Permit appeal.

Dated this 1st day of February, 2022.

ZIONTZ CHESTNUT

s/ Wyatt F. Golding
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Puget Soundkeeper Alliance's Proposed Legal Issues, *Puget Soundkeeper Alliance v. State of Washington Department of Ecology*, PCHB No. 21-082c

(Feb. 1, 2022)

POLLUTION CONTROL HEARINGS BOARD
FOR THE STATE OF WASHINGTON

PUGET SOUNDKEEPER ALLIANCE, *et al*., Appellants, v. STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY, Respondents.	PCHB NO. 21-082 Consolidated APPELLANT PUGET SOUNDKEEPER ALLIANCE'S PROPOSED LEGAL ISSUES AND PRELIMINARY LIST OF WITNESSES AND EXHIBITS Puget Sound Nutrient General Permit

In accordance with the Pollution Control Hearings Board's (Board), January 7, 2022, letter following a conference call with all parties, Appellant Puget Soundkeeper Alliance (Soundkeeper) respectfully submits the following proposed list of legal issues and preliminary list of witnesses and exhibits. Soundkeeper has conferred with Appellants Washington Environmental Council and Suquamish Tribe and reached agreement that the proposed legal issues are appropriate to be addressed in this case. Soundkeeper will not necessarily provide briefing or testimony on each of the issues. The identification of witnesses and exhibits pertains to Soundkeeper only.

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On January 7, 2022, the Board consolidated Soundkeeper's appeal with P21-083, P21-085, P21-087, P21-088, P21-090, P21-091, P21-092, P21-093, and P21-094, which each challenge the Puget Sound Nutrient General Permit (Nutrient Permit), a National Pollutant Discharge Elimination Systems and State Waste Discharge General Permit, issued December 1, 2021, by the Department of Ecology (Ecology). In consolidating the cases, the Presiding Judge stated that it was not necessary for the parties to intervene in each other's individual appeals because the appeals will become one case after consolidation. Soundkeeper expects to present evidence and testimony adverse to the Permittee Appellants on certain legal issues and reserves the right to do so here.

Proposed List of Legal Issues

1. Whether the Nutrient Permit's failure to impose numeric or other sufficiently specific, protective, and enforceable effluent limits on all dischargers of nutrient pollution to Puget Sound violates the requirements to control all pollution discharges with all known, available and reasonable methods of prevention, control and treatment (AKART) under Washington law?

2. Whether the Nutrient Permit's failure to impose numeric effluent limits of 3 mg/L nitrogen and 0.3 mg/L phosphorus for at least all dominant and moderate dischargers of nutrient pollution to Puget Sound violates state and federal law?

3. Whether the Nutrient Permit authorizes discharges that cause or contribute to a violation of water quality standards, or have a reasonable potential to cause or contribute to a violation of water quality standards, in violation of state and federal law?

4. Whether the Nutrient Permit authorizes discharges that fail to protect designated uses of waters in violation of state and federal law?

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5. Whether the Nutrient Permit authorizes discharges that degrade Puget Sound in violation of state and federal law?

6. Whether Ecology's failure to determine and require AKART in the Nutrient Permit constitutes impermissible self-regulation contrary to the requirements of state and federal law?

7. Whether the Nutrient Permit's "Best Management Practices" (BMPs) fail to qualify as effluent limitations under federal law and AKART under state law?

8. Whether the Nutrient Permit's terms and conditions fail to constitute best management practices in violation of 40 C.F.R. § 122.44(k)?

9. Whether the Nutrient Permit's failure to require adequate assessment of compliance by (1) requiring insufficiently frequent monitoring overall and (2) requiring insufficiently frequent monitoring for phosphorus, total nitrogen, and organic nitrogen specifically is arbitrary and capricious and contrary to state and federal law?

10. Whether Ecology's choice of upper confidence limits and monitoring frequency to establish action levels and to determine when action levels are exceeded for Dominant and Moderate Loaders is arbitrary and capricious and contrary to state and federal law?

Appellants continue to evaluate the potential legal and factual issues and reserve the right to supplement this list as discovery proceeds. Appellants also reserve the right to join any issue raised by any other party in the matter and the ability to amend issues in the Prehearing Order entered herein to amend or add issues as allowed under the terms of the Prehearing Order and the rules of practice before the Board.

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Preliminary List of Witnesses

Soundkeeper expects to call as an expert witness: JoAnn Burkholder, Ph.D. Dr. Burkholder will testify about nutrient pollution from wastewater treatment plants, scientifically sound limitations on nutrient pollution, scientifically sound monitoring protocols for nutrient pollution, and reasonably available treatment technologies for nutrients.

Soundkeeper expects to call at least 1-2 additional expert witnesses. Soundkeeper is currently working to identify additional testifying witnesses and will further address this as discovery proceeds and the rules and case schedule require. Soundkeeper expects to call witnesses as necessary to introduce documentary evidence in support of its issues, and to respond to issues raised by permittees, including from either Ecology or permittees.

Soundkeeper also reserves the right to call any witness identified by the other parties in this matter in either a preliminary or final witness list and reserves the right to call rebuttal witnesses as allowed by the Board.

Preliminary List of Exhibits

Soundkeeper is at an early stage of preparing its case and has not yet conducted discovery nor obtained work product from experts and therefore has not yet identified all its exhibits.

Soundkeeper reserves the right to supplement this list and will supplement in accordance with applicable rules and any prehearing order. Soundkeeper also reserves the right to utilize any exhibit listed by the other parties in this matter in either a preliminary or final exhibit list. At this stage, Soundkeeper anticipates relying on the following exhibits:

- Puget Sound Nutrient General Permit, a National Pollutant Discharge Elimination Systems and State Waste Discharge General Permit, issued December 1, 2021
- Fact Sheet and Appendices for the Puget Sound Nutrient General Permit
- Puget Soundkeeper's comments on the draft Puget Sound Nutrient General Permit (Aug. 16, 2021)

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Respectfully submitted this 1st day of February 2022.

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DECLARATION OF SERVICE

I, Adam Hinz, hereby declare that on February 1, 2022, I filed the foregoing document with the Pollution Control Hearings Board via electronic mail at eluho@eluho.wa.gov.

I further declare that I served a copy of the foregoing document via email, per agreement, upon the parties as follows:

Ecology Ronald Lavigne, Senior Counsel Sonia Wolfman, Asst. Attorney General Office of the AG – Ecology Division P.O. Box 40117 Olympia, WA 98504 ronald.lavigne@atg.wa.gov sonia.wolfman@atg.wa.gov donna.fredricks@atg.wa.gov ecyolyef@atg.wa.gov	**King County** Beth Ginsberg Michael Campbell Stoel Rives LLP 600 University Street, Suite 3600 Seattle, WA 98101 beth.ginsberg@stoel.com michael.campbell@stoel.com lynn.stevens@stoel.com Verna Bromley Michael Graves King County Prosecuting Attorney's Office 1191 Second Avenue, Suite 1700 Seattle, WA 98101 verna.bromley@kingcounty.gov mgraves@kingcounty.gov
Washington Environmental Council Wyatt Golding Brian C. Gruber Ziontz Chestnut 2101 Fourth Avenue, Suite 1230 Seattle, WA 98121 wgolding@ziontzchestnut.com bgruber@ziontzchestnut.com chazzard@ziontzchestnut.com	**Suquamish Tribe** Jane G. Steadman Kanji & Katzen, PLLC 811 First Avenue, Suite 630 Seattle, WA 98104 jsteadman@kanjikatzen.com Melody Allen The Suquamish Tribe Office of Tribal Attorney 18490 Suquamish Way P.O. Box 498 Suquamish, WA 98392 mallen@suquamish.nsn.us

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Pierce County Devra R. Cohen Lori A. Terry Foster Garvey PC 1111 Third Avenue, Suite 3000 Seattle, WA 98101 devra.cohen@foster.com lori.terry@foster.com shbien.cross@foster.com	**Alderwood Water & Wastewater District** Joseph P. Bennett Hendrick-Bennett, PLLC 402 Fifth Avenue South Edmonds, WA 98020 joe@hendricksb.com

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Birch Bay Water & Sewer District Robert A. Carmichael Catherine A. Moore Carmichael Clark PSW 1700 D Street Bellingham, WA 98225 bob@carmichaelclark.com cmoore@carmichaelclark.com tbaker@carmichaelclark.com tmaloy@carmichaelclark.com	

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 1st day of February 2022, at Seattle, Washington.

Adam Hinz, Litigation Paralegal

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Suquamish Tribe's Comments on West Point NPDES Permit (July 7, 2023)

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THE SUQUAMISH INDIAN TRIBE

PO Box 498 Suquamish, WA 98392-0498

TRANSMITTED BY ONLINE COMMENT FORM

July 7, 2023

Tricia Miller
Permit Administrator
WA State Dept of Ecology - NWRO
PO Box 330316
Shoreline, WA 98133-9716

RE: West Point Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge Draft Permit, Permit WA0029181

Dear Ms. Miller,

The Suquamish people have lived, fished, hunted, and gathered in and around Puget Sound since time immemorial. The Suquamish Indian Tribe takes its name from the traditional Lushootseed phrase for "people of the clear salt water" and is signatory to the 1855 Treaty of Point Elliott, in which the Tribe forever reserved the right to take fish in its usual and accustomed fishing areas (U&A). The Suquamish U&A includes portions of Puget Sound and connected waterbodies into which King County's West Point Wastewater Treatment Plant and Combined Sewer Overflow System discharges. Untreated or improperly treated wastewater, including from West Point and other sources regulated in the draft permit, are discharged into these waters resulting in impacts to the Suquamish Indian Tribe and its members. These discharges result in harmful algae blooms, posting of health advisories, and closure of beaches where Suquamish tribal members harvest shellfish and engage in traditional cultural activities. In addition, these discharges have prompted and will continue to prompt recalls of commercially sold shellfish. All these impacts interfere with tribal member commercial and subsistence harvest activities that are reserved under the treaty. Discharges that result in health advisories and beach closures, negatively impact Suquamish tribal members ability to safely practice traditional life ways such as canoe racing, potlach ceremonies, and canoe journey, to name a few.

The Suquamish Indian Tribe has reviewed the West Point Wastewater Treatment Plant draft NPDES permit and requests Ecology include certain changes so that the permit protects water quality and complies with federal and state law. In general, the Tribe is concerned that Ecology is, for the most part, maintaining the status quo rather than forcing meaningful action from the State's largest wastewater treatment plant to improve water quality in Puget Sound.

In association with these comments, please also closely review the Technical Memorandum prepared on behalf of the Suquamish Indian Tribe by CEA Engineers, P.C. ("CEAPC"), which is attached to these comments and incorporated by reference. We also support the comments provided by Washington Conservation Action (WCA) and Puget

Soundkeeper Alliance (Puget Soundkeeper), some of which we specifically highlight in the sections below.

I. The Draft Permit Does Not Force Actions Necessary to Address King County's WPTP and Combined Sewer Overflow System's Long History of Impairing Water Quality in Puget Sound.

The waters of Puget Sound and the entire Puget Sound are the Tribe's most treasured resource. We are obliged to protect these waters, not only for ourselves but for all who rely on them for healthy seafood, recreation, and cultural practices for the next seven generations (Suquamish Tribal Chairman Leonard Forsman). We acknowledge King County's investments to improve its wastewater treatment systems, but the Suquamish Indian Tribe and its members are frustrated by ongoing sewage releases and NPDES exceedances in Puget Sound that include nutrient loads, which continue to harm marine water quality and the Tribe's ability to exercise treaty reserved rights and engage in cultural activities. We are running out of time and need swifter action. It is time to increase commitments in improving and protecting our shared waters.

King County is responsible for numerous NPDES permit violations, discharging untreated and improperly treated wastewater into Puget Sound between 2015 and 2021. These discharges occurred at the West Point Treatment Plant, the CSO treatment facilities, and combined sewer outfalls (CSOs), affecting, among others, the shores of Centennial Park on Elliott Bay in downtown Seattle, Alki Beach in West Seattle, Discovery Park Beach in Magnolia, and the beaches at the Port Madison Reservation. Ecology must do more to force action to address these unpermitted discharges than its draft permit provides for.

As noted in Ecology's fact sheet, even with the use of mixing zones, King County has not consistently complied with effluent limits and permit conditions throughout the duration of the existing permit, issued December 2014. In addition to violating effluent limits, King County has had unauthorized bypasses and CSO overflows. As a result, the Suquamish Indian Tribe notified King County that it was responsible for at least 19 significant illegal discharges from the WPTP into the Tribe's treaty-protected fishing areas and that the Tribe intended to file suit for ongoing violations of the Clean Water Act (33 U.S.C. §1251 *et seq.*) and King County's NPDES permit. The subsequent settlement agreement between King County and the Tribe, executed on October 20, 2022, requires King County to upgrade infrastructure to eliminate or further reduce untreated discharges from WPTP into Puget Sound. However, the Tribe should not be forced to engage in such resource-intensive actions to protect the Sound's water quality and the free and safe exercise of tribal fishing rights. That is Ecology's obligation, and one major avenue for doing so is through issuing permits with conditions that force dischargers to reduce pollutant loads, including through implementation of the best available technology.

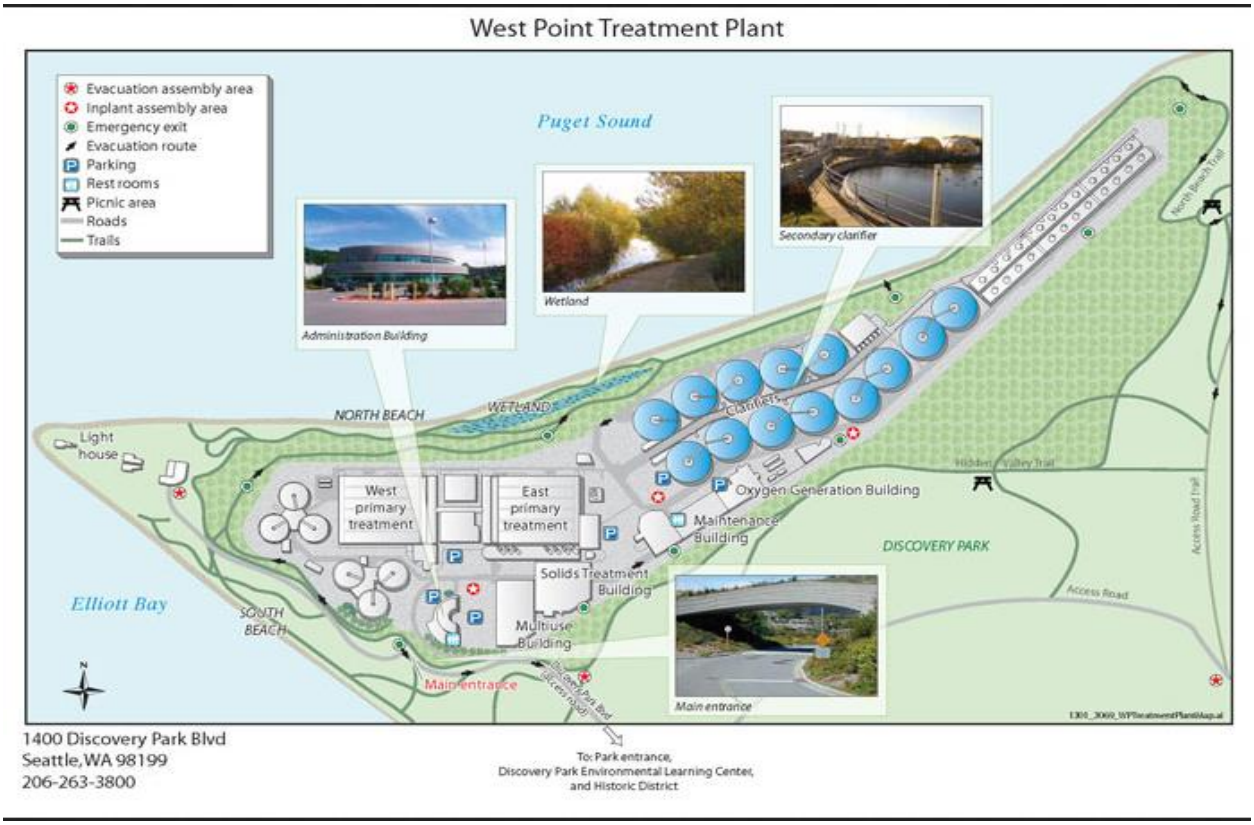
Any new expansion, discharge increase, or permit application must be thoroughly reviewed to identify alternatives to degrading water quality. Local jurisdictions repeatedly state that they have made heroic efforts in determining how to best invest limited funds to produce the biggest benefits. We have heard in meetings and read in comments submitted that "we can't do everything, so we need to determine what the highest priority investments are." The investments jurisdictions make are not just in the physical infrastructure that make up the treatment facility, but investments in a healthy and recovered Puget Sound with abundant salmon and orca whales,

and with clean and abundant shellfish beds that support tribal treaty rights without interruption or closures from sewage spills (including CSO events) or from harmful algal blooms.

Membrane technology is repeatedly overlooked as a viable and feasible alternative. By applying membrane technology, one can convert a traditional activated sludge system into a membrane bioreactor (MBR). Those differ from conventional systems in two ways:

1. In MBR applications the activated sludge tanks can be operated with a far higher concentration of bacteria. This leads to a higher treatment capacity at the same tank volume.

2. In MBR applications the treated clear water is not separated by means of gravity settling but by means of membrane filtration. Therefore, there is no secondary clarifier necessary and the output quality is vastly improved. The Tribe has been told that limited area available makes most upgrades impossible yet secondary clarifiers take up almost half of the facility footprint (see West Point Treatment Plant map below).



II. Ecology Should Determine AKART for Nutrients from the West Point Treatment Plant and Include Nutrient Effluent Limits in the Permit.

Washington's Water Pollution Control Act establishes a public policy of maintaining "the highest possible standards to insure the purity of all waters of the state" and to exercise state authority "as fully and effectively as possible, to retain and secure high quality for all waters of

the state." RCW 90.48.010. The Act makes it unlawful to discharge any matter that shall cause or tend to cause pollution, and defines pollution broadly to include any discharge that will, or is likely to, render a water of the state harmful to fish or other aquatic life. RCW 90.48.080, .020; *see also* WAC 173-226-020.

"No waste discharge permit can be issued that causes or contributes to a violation of water quality criteria, except as provided for in this chapter." WAC 173-201A-510(1). When issuing a permit, Ecology must ensure that "all known, available, and reasonable methods of treatment"—or AKART—are implemented by treatment plants. RCW 90.52.040, 90.54.020. WAC 173-220-130(1) requires, in pertinent part, that "[a]ny permit issued by [Ecology] shall apply and insure compliance with all of the following, whenever applicable: (a) All known, available, and reasonable methods of treatment required under RCW 90.52.040, 90.54.020 (3)(b), and 90.48.520." "Permits must be modified by the department when it is determined that the discharge causes or contributes to a violation of water quality standards." WAC 173-201A-510(1)(b); 40 C.F.R. § 122.44(d)(1)(iii) (permit must contain an effluent limit for parameter when permitting authority determines that discharge causes, has the reasonable potential to cause, or contributes to an excursion above the water quality standards). Ecology is also required by its antidegradation policy to take appropriate and definitive steps to bring the water quality back into compliance with the water quality standards for waters that do not meet assigned criteria or protect existing or designated uses. WAC 173-201A-310(2); Fact Sheet at 62.

Nutrient pollution causes an increase in harmful algal growth, which in turn can result in reduced or depleted levels of dissolved oxygen, an imbalanced ecosystem, significant public health risks, loss of critical habitat for beneficial aquatic life, greatly reduced biodiversity, and a general decline in fish and aquatic life. These impairments pose a direct threat to aquatic life and the abundance of treaty-reserved resources. In the case of harmful algal blooms, it also threatens the Tribe's access and ability to harvest treaty reserved resources. Shellfish closures due to paralytic shellfish toxins in the central basin of Puget Sound were almost unheard of until the 1970s but had become commonplace by the 1990s and continue to the present.

Ecology should expressly confirm that nutrient discharges from the West Point Wastewater Treatment Plant are causing and contributing to violations of the state's dissolved oxygen water quality criteria. The fact sheet recognizes that Ecology's Salish Sea Model predicts "that nutrients discharged from wastewater treatment plants have a reasonable potential to contribute to existing low dissolved oxygen levels, below state water quality criteria, in the Salish Sea (which includes Puget Sound)." Fact Sheet at 83. But it says no more. However, this conclusion should not be up for dispute. Elsewhere, Ecology has recognized:

1. "Recent studies led Ecology to determine that anthropogenic (human) sources of nutrients lead to instances of low DO concentrations throughout Puget Sound (Khangaonkar et al., 2018, Pelletier et al., 2017, Ahmed et al., 2014, Roberts et al., 2014, Khangaonkar et al., 2012 b, Albertson et al., 2002) exacerbating those effects in areas that may have naturally occurring lower DO and creating additional conditions (areas or duration) where water quality standards are not met." Puget Sound Nutrient General Permit (PSNGP) Fact Sheet at 26.

2. "With at least 10 years dedicated to the technical work and development of water quality models, Ecology has reached the point where the science clearly demonstrates that cumulative point and nonpoint sources deplete DO resulting in nonattainment of standards within Washington waters of the Salish Sea." PSNGP Fact Sheet at 31.

3. "Ecology documented reasonable potential with the determination that domestic wastewater discharges may cause or contribute to a violation of surface water quality standards for dissolved oxygen." PSNGP Fact Sheet at 34.

And the U.S. Environmental Protection Agency (EPA) has explained: "Discharges of excess nutrients, specifically nitrogen, to Puget Sound from domestic WWTPs are contributing to existing low DO levels in Puget Sound. Through use of the Salish Sea Model, Ecology concluded that all domestic WWTPs that discharge to Puget Sound have reasonable potential to contribute to existing impairments." U.S. EPA, *Fact Sheet Addendum for Proposal of Additional Conditions Related to PFAS and Nutrient Optimization/Reduction*, at 4 (April 11, 2023), https://www.epa.gov/system/files/documents/2023-04/R10-NPDES-Lummi-Sandy-Point-WA0025658-Fact-Sheet-Addendum-2023.pdf.

West Point Treatment Plant's 2019 total inorganic nitrogen loading into the Puget Sound was 18,290 lbs/day, the highest of any wastewater treatment plant, and 25.6% of total cumulative nutrient load. PSNGP Fact Sheet at 78. There should be no dispute based on the modeling and data that West Point and its nutrient discharge are causing and contributing to violations of the state's dissolved oxygen water quality criteria.

Ecology has also recognized that "the existing DO impairments within the Washington Waters of the Salish Sea *require* nitrogen reduction from domestic POTWs (and other sources) in order to meet surface water quality standards," PSNGP Response to Comments at 26 (emphasis added), and "population growth will make the duration and extent of [the Sound's] existing impairments worsen," *id.* at 14. Ecology should confirm that nutrient reduction is required from West Point.

The fact sheet states that "Technology-based limits, in combination with the Puget Sound Nutrient General Permit discussed above, will ensure that dissolved oxygen criteria are met in the receiving water." Fact Sheet at 84. The Tribe requests that Ecology explain how it reached this conclusion and what time frame it is based on. There does not appear to be support for it and to the contrary, all the evidence suggests Ecology is aware the dissolved oxygen impairment will only get worse without nutrient discharge reductions and nothing in this permit or the PSNGP if and even once fully implemented will lead to nutrient reductions in the near future.

Yet the draft permit includes no effluent limits for nutrients (technology-based, water quality-based, numeric, or narrative) that Ecology acknowledges are necessary to control nutrient pollution to the Puget Sound in a manner protective of water quality. Instead, the fact sheet merely states:

> On December 1, 2021, Ecology issued the Puget Sound Nutrient General Permit (PSNGP) to regulate the discharge of Total Inorganic Nitrogen from 58 domestic wastewater treatment plants that discharge to marine and estuarine waters in

> Washington's waters of the Salish Sea (https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Nutrient-Permit). King County's West Point Treatment Plant is covered by the PSNGP, which includes requirements for the control and monitoring of nutrients. This individual permit does not contain limits or other conditions related to the regulation of nutrients.

Fact Sheet at 83. This is insufficient for numerous reasons.

This justification ignores the context of the PSNGP and the permittee's efforts to have its limited requirements stayed and vacated. First, the PSNGP makes no findings regarding "all known, available and reasonable methods of prevention, control and treatment" (AKART) for the removal of nutrient pollutants from discharges by wastewater treatment plants into Puget Sound. It requires the permittees to undertake evaluations and analyses, but doesn't require dominant or moderate loaders to implement optimization; it only requires dominant or moderate discharging plant to implement a proposed approach to reduce its discharge by at least 10% below the action level exceedance if it exceeds the action level two years in a row, or for three years in the five-year permit term. This does not achieve Ecology's obligation to make an AKART determination and by not addressing nutrients in West Point's individual permit, Ecology is not addressing the Plant's discharges that cause or contribute to an exceedance of the relevant dissolved oxygen criteria.

Second, King County has sought and partially succeeded in staying most of the limited substantive requirements contained in the PSNGP, in particular the entire "Compliance with Standards" section and the sections on "Action Level Exceedance Corrective Actions" are stayed and not in effect pending an appeal of the PSNGP. *See* Stipulation for Partial Stay of Puget Sound Nutrient General Permit, PCHB No. 21-082c (Jan. 14, 2022). The appeal before the Pollution Control Hearings Board itself only got to briefing on preliminary issues, did not complete discovery, and based on a request joined by the permittee here, the appeal is currently stayed pending resolution of *City of Tacoma v. Dep't of Ecology*, No. 56859-4-II, before Division Two of the Court of Appeals. The substantive requirements contained in the PSNGP are thus likely multiple years away from becoming effective.

Third, the permittee itself is arguing that the PSNGP is unlawful and the limited nutrient control requirements it contains must be accomplished through individual permits. *See* Permittee Appellants' Joint Motion for Partial Summary Judgment on Threshold Issues, PCHB No. 21-082c, at 1-2, 14-21 (March 18, 2022) ("Ecology is only authorized, however, to require permit coverage for a discharge through either an individual permit or a general permit. Ecology does not have the authority to issue a mandatory general permit regulating the same discharge already authorized by an individual permit. Ecology could reissue individual permits with new requirements addressing each WWTP's specific contribution to discharges of total inorganic nitrogen ("TIN") and associated dissolved oxygen impairments."); Permittee Appellants' Reply in Support of Joint Motion for Partial Summary Judgment on Threshold Issues, PCHB No. 21-082c, at 3-10 (April 29, 2022). While the Tribe agrees with Ecology's response in the appeal that the permittee is incorrect, King County should not be able to have it both ways. This context shows that the West Point Wastewater Treatment Plant is currently "covered" by the PSNGP in only a narrow technical sense divorced from the reality of the situation and that the permittee itself should be viewed as requesting nutrient limits be incorporated into its individual permit

rather than the general permit. *See, e.g.*, WAC 173-226-080(2) ("The director may require any discharger to apply for and obtain an individual permit, or to apply for and obtain coverage under another more specific general permit."); WAC 173-226-240(3) ("Any discharger authorized by a general permit may request to be excluded from coverage under the general permit by applying for and being issued an individual permit."). Importantly, what is Ecology's plan should the permittee succeed in this, or any of its other arguments and gets the PSNGP thrown out? The Puget Sound cannot wait another five, eight, or more years before addressing West Point's nutrient discharges, and Ecology has the opportunity now to begin restoring it with the individual permit of the single largest nutrient discharger.

The failure to address nutrients in the permittee's individual permit is all the more troubling given the options Ecology is aware of. Ecology is aware of technology limiting nitrogen discharges to 3 mg/L. The Tribe requests that Ecology make a site-specifical finding on AKART for the removal of nutrient pollutants from West Point's discharges and set water-quality based effluent limits. Please also carefully review the attached CEAPC Technical Memorandum's "Lack of Nitrogen Permit Effluent Limits" section.

Alternatively, implementing the stayed provisions of the PSNGP is a bare minimum option. Ecology could require King County to conduct an engineering analysis to determine what constitutes all known, available, and reasonable methods of prevention, control and treatment (AKART) for nitrogen removal at the facility. The analysis must highlight an alternative representing the greatest total inorganic nitrogen reduction that is reasonably feasible on an annual basis. King County then must implement the option selected as AKART, within the permit term. Ecology could set an action level for total inorganic nitrogen; however, the Tribe requests the yearly action level be reduced from the level in the PSNGP as that level was set too high to be meaningful. Limits should be based on monthly average flows not the sum of monthly flows over one year. Flows during dry summer months can significantly skew annual averages by averaging out high flow events effectively allowing discharges resulting in water quality violations during the rainy winter and spring months.

The yearly "action levels" that Ecology calculated for the West Point Wastewater Treatment Plant and the other discharges used an egregiously lax statistical basis. The 99th percentile of the existing discharge loads would allow King County to continue to increase nitrogen pollution loads over many years. We urge Ecology to first review King County's 2022 nitrogen loads reporting under the Puget Sound Nutrient General Permit, which have not been made available to the public, and calculate the ratio of the actual monthly loads to the action levels.[1]

Any action level exceedance should also require both short term and long-term corrective actions. Waiting potentially 5 years for an exceedance to be addressed and implementation of an action is unacceptable.

[1] The Tribe recognizes the PSNGP allowed the permittee to "bubble" West Point with two other plants but sees no reason that would prevent Ecology from addressing West Point's nutrient discharges through its individual permit.

III. Ecology Has Not Imposed Adequate Compliance Schedules in the Draft Permit for Infrastructure Improvements at West Point WWTP, the County's CSO System, or Elliott West CSO Treatment Plant.

"When appropriate," NPDES permits may include "a schedule of compliance leading to compliance with CWA and regulations . . . as soon as possible, but not later than the applicable statutory deadline under the CWA." 40 C.F.R. § 122.47(a)(1). Compliance schedules "shall be developed to ensure final compliance with all water quality-based effluent limits in the shortest practicable time" and "shall generally not exceed the term of any permit." WAC 173-201A-510(4); *see* WAC 173-220-140(1)(b) ("Schedules of compliance, shall set forth the shortest, reasonable period of time, to achieve the specified requirements"); WAC 173-220-140(2) ("in no event shall more than one year elapse between interim dates").

"Any compliance schedule contained in an NPDES permit must include an enforceable final effluent limitation and a date for its achievement that is within the timeframe allowed by the applicable State or federal law provision authorizing compliance schedules as required by CWA sections 301(b)(1)(C); 502(17); the Administrator's decision in *Star-Kist Caribe, Inc.* 3 E.A.D. 172, 175, 177-178 (1990); and EPA regulations at 40 C.F.R. §§ 122.2, 122.44(d) and 122.44(d)(1)(vii)(A)." Memo from James Hanlon, Director of EPA's Office of Wastewater Management to Alexis Strauss, Dir. of the Water Division, Region 9, at 2 (May 11, 2007), https://www3.epa.gov/npdes/pubs/memo_complianceschedules_may07.pdf. "In order to grant a compliance schedule in an NPDES permit, the permitting authority has to make a reasonable finding, adequately supported by the administrative record and described in the fact sheet (40 C.F.R. § 124.8), that a compliance schedule is 'appropriate' and that compliance with the final WQBEL is required 'as soon as possible.' *See* 40 C.F.R. §§ 122.47(a), 122.47(a)(1)." *Id.*

Ecology does not include compliance schedules that should be incorporated in the draft permit. Instead of establishing a compliance schedule for the infrastructure projects the County, Ecology, and the Suquamish Indian Tribe have identified to address various problems in the County's West Point WWTP and CSO system (e.g., the 2022 settlement agreement and 2013 consent decree, as modified) in the draft permit, Ecology merely references documents external to the permit in its fact sheet or does not mention them at all.

For example, King County has had numerous, serious problems with power supply and intermediate pump station (IPS) failures at West Point, which have caused extremely significant discharges of untreated sewage through its emergency bypass and inadequately treated non-wet weather secondary treatment diversions. While the Fact Sheet (page 11) briefly notes the power disruption that caused the catastrophic failure of West Point in 2017, it fails to even mention the 1.28 million gallon secondary treatment diversion on May 19, 2018, the 1 million gallon secondary treatment diversion on March 17, 2019, the 2.1 million gallon *full plant* diversion on July 19, 2019 (which fouled Suquamish's beaches during the Canoe Journey and led to the Tribe sending a notice of intent to sue), the 2.5 million gallon secondary treatment diversion less than two months later on September 7, 2019, the 11 million gallon *full plant* diversion on January 13, 2021, or the 3.5 million gallon secondary treatment diversion on February 2, 2021. And this list does not even include the frequent secondary treatment bypasses and emergency bypasses in the tens of thousands and hundreds of thousands of gallons during the current permit's term. *See, e.g.*, Suquamish Tribe's Third Supplemental Notice of Intent to Sue Under the Clean Water Act

to King County (July 19, 2021). The Fact Sheet and draft permit certainly do not mention the significant power supply and IPS pump failures that have led to these serious violations of the Clean Water Act.

More importantly, neither the fact sheet nor the permit *addresses* the IPS pump failures (or human error) that have led to many of these serious bypasses in any way. Regarding power supply, the draft permit merely repeats conditions S5.D (Electrical Power Failure) and G.8 (Reduced Production for Compliance) from the current permit, which have done absolutely nothing to prevent the emergency bypasses and power-related secondary treatment bypasses. With respect to the emergency bypasses (i.e., no treatment whatsoever), the most Ecology does is state the following:

> As discussed above, the West Point WWTP has the potential to discharge untreated wastewater to Puget Sound through an emergency bypass outfall when necessary to protect the treatment plant and its operators. The emergency outfall consists of a 12-ft by 12-ft square pipe located approximately 600 feet offshore of West Point's north beach. The outfall discharges at a depth of approximately 40 feet. While Ecology recognizes the importance of this outfall to protect the facility and its operators, the proposed permit does not consider the outfall as a permitted discharge location. Ecology *may* take enforcement actions for discharges through this outfall. Figure 2 also shows the location of this outfall.

Fact Sheet at 17-18 (emphasis added). "*May* take enforcement actions for discharges through this outfall"? Such equivocation with respect to Ecology's enforcement intent is woefully insufficient to address the significant, ongoing problems with emergency bypasses at West Point. In any event, the emergency bypass and non-wet weather secondary treatment diversion problems must be better and more directly addressed *in the final permit's conditions*, including through compliance schedules for infrastructure improvements. As noted below, Ecology should specifically incorporate the infrastructure requirements and deadlines from the Tribe's settlement with the County in the permit, along with any additional requirements that Ecology believes are necessary in order to avoid unpermitted secondary treatment diversions and emergency bypasses.

Another issue of great concern to the Tribe is King County's lack of progress on addressing combined sewer overflows (CSOs). CSOs harm Suquamish tribal members through diminished use of beaches, decreased fishing and shellfishing opportunities in the Tribe's U&A, and the accumulation of metals and other toxics in fish that are then ingested by tribal members. EPA finalized the federal policy for reducing pollution from combined sewer overflows in 1994, and in 2007, EPA concluded that King County's ongoing CSOs violated state and federal regulations. This led to a 2013 Consent Decree between King County, Ecology, EPA, and the U.S. Department of Justice that required actions necessary to bring King County's CSO program into compliance with the Clean Water Act. King County has repeatedly complained about the deadlines in the 2013 Consent Decree (as modified in 2016), and on October 28, 2019, requested that the terms be renegotiated. In that letter, King County cited as one basis for modification the "Clean Water Plan," a wide-ranging planning process that the County has now abandoned citing the PSNGP and its negotiations with Ecology and EPA on the 2013 Consent Decree. *See* https://kingcounty.gov/depts/dnrp/wtd/ system-planning/clean-water-plan.aspx. The public, including the Suquamish Indian Tribe, has been excluded from negotiations regarding

modification of the consent decree. We have found this distressing and believe that the County must, at an absolute minimum, adhere to the schedule established in the 2013 consent decree, as modified in 2016, in order to meet its very long-standing obligations under the Clean Water Act.

In short, both Ecology and the Suquamish Indian Tribe have invested considerable time and resources into addressing the issues discussed in this section with King County, resulting in external documents that can and should inform and be incorporated into permit conditions in the new permit, including compliance schedules. Though such permit conditions need not be limited to the terms of such external documents (and certainly could not exceed any deadlines or contradict other conditions imposed in them), at a minimum, Ecology should establish compliance schedules in this permit consistent with provisions of the Tribe's settlement agreement with King County (Section IV), which contains deadlines that have not yet passed regarding the Uninterruptible Power Supply, Voltage Sag Mitigation, and Peak Flow Redundancy to address the emergency bypass and non-wet weather secondary treatment bypasses at West Point, and the 2013 consent decree (as modified in 2016), which establishes deadlines to address King County's persistent and significant CSO problems. Please also see Puget Soundkeeper's comments regarding controlled and uncontrolled CSOs.

The draft permit does—finally—impose a compliance schedule for improvements at the Elliott West CSO Treatment Plant, which routinely violates the current NDPES permit's effluent limits. Elliott West has been a significant and persistent source of the County's numerous Clean Water Act violations. The Tribe's 3rd Supplemental Notice of Intent to Sue, dated July 19, 2021, tracked nearly 100 violations at Elliott West CSO (Outfall 27b) between 2015 and 2021 alone. More violations followed. The draft permit imposes a compliance schedule for improvements at S15.A.[2] While the Tribe would very strongly prefer that the construction completion deadline for improvements at Elliott West occur within the permit term, it recognizes that there are scheduling difficulties with that timeframe and that the new total residual chlorine limit for Elliott West CSO treatment plant may have necessitated King County's reassessment of its prior alternatives analysis for the facility. The County recently updated the Tribe on its Elliott West alternatives analysis and schedule for Elliott West CSO Treatment Plant improvements. The Tribe appreciated the update but was also troubled by aspects of it. While the Tribe can live with the compliance schedule at S15.A of the draft permit, it cannot accept the County's current anticipated schedule, which would extend construction completion to a year longer than contemplated in the draft permit (i.e., December 31, 2032 instead of December 31, 2031). The County also contemplates submitting its final plans and specifications to Ecology by June 30, 2028 (rather than December 31, 2027) and completing bidding for construction for the approved improvement project by December 31, 2028 (rather than May 30, 2028). The Tribe urges Ecology to retain the compliance schedule included in the draft permit, and at the very least, bidding must be completed by the end of the permit term. Ecology must also hold firm on the construction completion date, including making the date binding through all means available.

Further, in light of the lower limits for total residual chlorine included in the draft permit (which the Tribe appreciates), the County is re-evaluating disinfection alternatives for Elliott West, including ultra-violet disinfection, to meet the new permit condition. As the CEAPC

[2] Note that the 80% draft plans and specifications deadline should be June 30, 2027 rather than July 1, 2027 to comply with WAC 173-220-140(2).

Technical Memorandum (page 8) indicates: "Implementation of ultraviolet disinfection entirely eliminates TRC from discharges from Elliott West, thus providing a clear environmental and ecological benefit, and will benefit the County by eliminating the potential for penalties resulting from NPDES Permit violations related to discharges of TRC from Elliott West." Consequently, the Tribe urges Ecology to add to Permit Condition S15.B (Requirements for engineering documents) or to Task 1 in S15.A (Table 36) that the modifications required to bring the Elliott West CSO Treatment Plant effluent into compliance with its permitted limits must include ultraviolet disinfection.

Finally, as described in the next section, the Tribe also urges Ecology to include a compliance schedule for completing a robust inflow and infiltration (I&I) removal program within the term of the permit.

IV. The Draft Permit Fails to Address Inflow and Infiltration (I&I) in a Meaningful Manner.

The Tribe is deeply concerned that Ecology has not addressed I&I in any meaningful way in the draft permit. The failure to do so means that Ecology is not forcing actions that would reduce flows into the County's West Point plant and CSO system that could reduce the severity and/or frequency of: CSOs, sanitary sewer overflows (SSO), CSO treatment facility discharges, secondary treatment bypasses, and emergency bypasses at the West Point WWTP influent control structure, all of which result in the discharge of elevated pollutants loads to the environment, which can adversely affect public health and the exercise of treaty fishing rights. Each of these types of discharge are therefore of significant concern to the Tribe, and Ecology should be doing everything within its power to force the County to reduce their frequency and severity, including meaningfully addressing inflow and infiltration. Please carefully review the CEAPC Technical Memorandum comments in the section entitled "Draft Permit Lack Requirements for Inflow and Infiltration Reductions." As CEAPC notes,

> The Draft Permit requires that as part of the County's operation and maintenance program that the County strictly enforce its sewer ordinances to not allow connection of inflow sources, such as roof drains or foundation drains, to the sanitary sewer system, but contains no means of monitoring this requirement. The only other requirement the Draft Permit includes for reducing RDII [i.e., rainfall-derived inflow and infiltration] is *consideration* of methods for I&I removal if a plan for maintaining adequate capacity at the West Point WWTP is triggered through either the actual flow or waste load to West Point WWTP reaches 85% of its design criteria for three consecutive months or the projects flows or loading would reach design capacity within five years. Either triggering event occurring is unlikely, meaning that the Draft Permit will most likely not force action to reduce I&I but rather only maintain the status quo. Even if one of the two triggering events occurred, the County would not have to take any measures to actually identify and eliminate RDII sources, but would only have to *consider* them in a plan.

Technical Memorandum at 4. The existing and proposed requirements are plainly insufficient to address the problem. The Tribe very strongly encourages Ecology to adopt the following

recommendation described in the CEAPC Technical Memorandum (pages 4-5):

> Consistent with Industry Standards and with common NPDES permitting requirements, Ecology should include requirements in the Draft Permit for the County to implement an I&I removal program in the County-owned and operated portions of its SSS that convey flows to the West Point WWTP and the ICS SSS that convey flows to the County's collection system for treatment at the West Point Treatment Plan in order to reduce the occurrence of untreated wastewater discharges through CSOs, SSOs, and Emergency Bypass and partially-treated wastewater through CSO treatment facility discharges and Bypass. Areas of the SSS identified with excessive RDII should be prioritized for pipe and manhole inspections and illicit inflow source identification investigations (e.g., smoke testing) and I&I source removal through prioritized manhole and pipe rehabilitation and illicit inflow source elimination. The Draft Permit should include a compliance schedule for completion of the I&I removal program within the term of the Permit, a required level of I&I removal resulting from the I&I removal program, and clear demonstration through flow monitoring results that the County achieved the required level of I&I removal.
>
> Also consistent with Industry Standards, King County and the ICS should address privately sourced I&I to have the most effective I&I removal program possible. Recent I&I removal efforts by the City of St. Petersburg, Florida identified that private I&I source removal through service lateral pipe rehabilitation combined with public I&I source removal through main pipe and manhole rehabilitation resulted in a 64% reduction in total RDII, while public source removal alone resulted in only a 30% reduction in RDII.[27] In support of environmental justice and to ensure the most effective I&I removal efforts possible, St. Petersburg instituted a program to assist private property owners with the costs of inspecting and rehabilitating private service laterals. The County and ICS should consider funding and implementing a similar comprehensive I&I reduction program addressing private and public I&I source removal to reduce excess flows in the County collection system and to West Point WWTP.

Beyond these specific requests, Ecology should require the County to evaluate and provide a report to Ecology regarding a plan to update its current service agreements with the independent collection systems that contribute to flows in the County collection system, which do not currently contain restrictions on the quantity of flows discharged to the County collection system, and to explain how the County will provide incentives for ICS to reduce flow by identifying and eliminating I&I sources.

The Tribe also concurs with the comments of Washington Conservation Action and Puget Soundkeeper on this topic,[3] including WCA's suggestion of including metering requirements for contributing jurisdictions based on the experience of jurisdictions on the east coast.

[3] The Tribe also directs Ecology's attention to Puget Soundkeeper's comments regarding I&I being listed at WAC 173-245-040(2)(b) as the first control alternative that "shall" be considered to achieve the greatest reasonable reduction at each CSO site. As Puget Soundkeeper notes, there is little indication that King County has considered any meaningful I&I reduction measures via the consent decree or otherwise.

V. Comments on Specific Pollutants

The Tribe briefly comments on some of the specific pollutants included (or not included) in the draft permit. In addition, the Tribe directs Ecology's attention to the comments in the CEAPC Technical Memorandum, as well as the comments of Washington Conservation Action and Puget Soundkeeper, regarding specific pollutants. While we appreciate that Ecology has added and, in some cases, strengthened certain effluent limits, we do have concerns about how some pollutants have been addressed or not been included in the permit at all.

A. Per-and polyfluoroalkyl substances (PFAS)

As the fact sheet explains, "Ecology published a revised PFAS Chemical Action Plan that include[s] a recommendation to 'Understand and manage PFAS in waste', which included recommendations related to wastewater treatment. Fact Sheet at 103. In that Chemical Action Plan, Ecology recognized the danger from PFAS and the need for action to address PFAS contamination. Ecology has recognized that "PFAS have been detected in Washington [] surface waters, groundwater, wastewater treatment plant (WWTP) effluent, freshwater and marine sediments, freshwater and marine fish tissue, and osprey eggs. Any toxic or other hazardous effects of these chemicals will be with us for many decades." *Per- and Polyfluoroalkyl Substances Chemical Action Plan, Hazardous Waste and Toxics Reduction Program*, Wash. State Dept. of Ecology, Publication 21-04-048, at 12 (Sept. 2022), https://apps.ecology.wa.gov/publications/documents/2104048.pdf. Bioaccumulation of PFAS has been confirmed in marine and terrestrial species, zooplankton and other invertebrates, and fish. *Id.* at 13. PFAS exposure in humans can occur through consuming contaminated water or food. PFAS have shown harmful effects to wildlife and to people. *Id.* One recommendation from Ecology's PFAS Chemical Action Plan was that: "Ecology should evaluate PFAS in WWTP influent and effluent to better understand PFAS discharges in Washington state." *Id.* at 27.

The Tribe supports the draft permit's requirement for monitoring of PFAS in influent to the West Point WWTP in 2025 and 2026 and the steps required to identify and control PFAS discharges such as updating industrial users inventory, requiring those industrial users to complete a PFAS prevention/source reduction evaluation, and evaluate other best management practices and pollution prevention strategies. Draft Permit at 17, 43. However, those requirements are not sufficient:

1. Consistent with U.S. EPA and Ecology's own recommendations, Ecology should not just require influent monitoring, but also effluent and biosolids monitoring. Memo from Radhika Fox, Assistant Administrator U.S. EPA to EPA Regional Water Division Directions, Regions 1-10, *Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs*, at 4 (Dec. 5, 2022), https://www.epa.gov/system/files/documents/2022-12/NPDES_PFAS_State%20Memo_December_2022.pdf; *see also* Authorization to Discharge Under the National Pollutant Discharge Elimination System, U.S. Department of the Navy Naval Magazine Indian Island Wastewater Treatment Plant, Permit No. WA0021997 (June 21, 2023) https://www.epa.gov/system/files/documents/2023-06/R10-NPDES-Naval-Magazine-Indian-Island-WA0021997-Final-Permit-2023.pdf (requiring quarterly influent, effluent, and sludge PFAS monitoring). While influent monitoring will

be valuable in helping to identify potential sources of PFAS coming into the facilities, effluent and residuals monitoring are necessary to address potential impacts to receiving waters and inform future permitting decisions, including the potential development of water quality-based effluent limits on a facility-specific basis.

2. Also consistent with U.S. EPA recommendations, the influent, effluent, and biosolids monitoring should require monitoring once the NPDES Permit is in effect (i.e., not wait until 2025) and last for its entire term (i.e., not stop in 2026). The permit should continue to require regular monitoring during its term to validate PFAS reductions are working. *Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs*, at 4-5.

The Tribe requests the permit should be revised to include PFAS monitoring of influent, effluent, and wastewater residuals monitoring for the entirety of the permit term and on a frequent enough period (i.e., more than quarterly) to be able to characterize the presence and concentration in the facilities' waste streams. Finally, in section S6.E(1), we believe that the industrial categories listed are underinclusive of potential sources of PFAS, such as laundries, electronic products, hazardous waste, chemical wholesalers, and that Ecology should enumerate such potential sources in the list included at that section.

B. Other Chemicals of Emerging Concern (CECs) and Other Known Toxics

In addition to PFAS, other chemicals of emerging concern should be monitored under the permit and similar requirements to those established for PFAS should be incorporated. For instance, 6PPD-Q is a contaminant of concern due to its known effects on salmonids. Since stormwater constitutes the majority of CSOs, it is important to know whether the CSOs are discharging 6PPD-Q and to monitor for such discharges. Other important CECs include a variety of endocrine disrupters, such as those found in some pharmaceuticals and personal care products, which can affect aquatic species important to the Tribe. The Tribe recommends expanding monitoring to include these other CECs.

The Tribe also believes that Ecology should establish effluent limits for PCBs and other known toxics found in wastewater effluent streams. The Tribe directs Ecology's attention to the comments of Washington Conservation Action and Puget Soundkeeper on these topics.

C. Total Residual Chlorine (TRC)

The Tribe appreciates that Ecology has significantly reduced the TRC limit at Elliott West CSO Treatment Plant and at least marginally reduced the TRC limits at some of the other CSO treatment plants. The TRC limit at West Point remains high, and we request that Ecology justify the Average Monthly limit of 139 micrograms/liter and Maximum Daily Limit of 364 micrograms/liter. West Point has already demonstrated that its average discharge is well below either of these limits (Fact Sheet at Table 19). Unlike the CSO treatment plants, West Point discharges daily, and the Tribe would like to understand Ecology's reasoning for allowing this load of TRC into Puget Sound.

D. Copper Effluent Limit for Henderson/MLK CSO treatment plant

Ecology determined that copper has a reasonable potential to cause a violation of the water quality standards at the Henderson/MLK CSO treatment plant. However, due to the fact that the facility is located near the upstream boundary that Ecology recognizes as the line between brackish and freshwater conditions, Ecology has proposed to increase the effluent limit derived using EPA's 1991 *Technical Support Document for Water Quality-based Toxics Control* (EPA/505/2-90-001) [hereinafter "EPA, 1991"] for copper, which was 12.3 µg/l, to 22.3 µg/l (i.e., 95th percentile value of monitored data) based on a number of questionable factors (Fact Sheet at 94) to protect aquatic life based on *freshwater* criteria.

The Tribe does not agree with this approach and directs Ecology's attention to the attached CEAPC Technical Memorandum's section discussing the Henderson/MLK Copper Effluent Limit Determination. As there is no hard or physical boundary between brackish and freshwater conditions, it is likely that marine organisms, or organisms adapted to brackish conditions, are present at the site. It is well known that copper is toxic to many aquatic organisms, including shellfish and salmonids. The Tribe believes allowing more copper to be discharged than the 12.3 µg/l effluent limit derived using methods from 1991, EPA (Fact Sheet at 94 and Appendix D) would be less protective than is required under the Clean Water Act and to protect important tribal resources.

VI. CSO Pollution Prevention Program Best Management Practices Should be Reviewed and Evaluated for Effectiveness and Consistency in Annual Reporting.

The draft permit requires implementation of a pollution prevention program focused on reducing the impact of CSOs on receiving waters (S11.B.7). As an element of the pollution prevention program, best management practices (BMPs) must be implemented to control the sources of pollutants in stormwater runoff that enters the Permittee's combined sewer system. The draft permit includes BMPs, however, the permit must go further and require that BMPs will be reviewed and evaluated for effectiveness and consistency in annual reporting. Requiring an annual evaluation of BMPs ensures accountability.

VII. The Draft Permit Impermissibly Employs Mixing Zones.

In permits that address the discharge of wastes that have caused or contributed to water quality violations in the past, the use of dilution is inappropriate and unlawful. Yet Ecology continues to rely on the old concept that "the solution to pollution is dilution," despite the fact that pollutants do not flush to the Pacific Ocean but continue to circulate throughout the Salish Sea. EPA created the concept of the mixing zone but it also has asserted that they can only be used when "where appropriate." 40 C.F.R. § 122.44(d)(1)(ii).

The Pollution Control Hearings Board has held that "[t]he granting of a mixing zone, which allows the discharge of pollutants at a greater concentration than the calculated effluent limit, is an exception to the water quality standards and is to be granted sparingly." Puget Soundkeeper Alliance v. Washington Ecology, PCHB No. 13-137c, Findings of Fact, Conclusions of Law, and Order (July 23, 2015) at 43 (emphasis added).

In general, mixing zones permit the discharge of effluent that is more polluted than allowed by water quality standards for the protection of aquatic organisms and designated uses, including the harvest and consumption of fish and shellfish. Mixing zones are typically used when effluent will not meet standards at the point of discharge without dilution by the receiving water. While dilution may reduce some effects, it does not eliminate impacts or risks.

Wastewater-impacted environments often show increased concentrations of total organic carbon, total nitrogen, phosphorus, and toxic chemicals in sediments. The effects of organic enrichment and contamination on the seabed usually follow a gradient of type and intensity with distance from the source. However, regardless of their scale intensity, duration or frequency, these effects may be influenced by other factors (physical, climatic or anthropogenic) to produce cumulative environmental impacts that are not considered in the permitting process establishing mixing zones. For example, studies by Ecology have long ago concluded that nitrogen in municipal sewage discharges is causing and contributing to low levels of dissolved oxygen. Decreased levels of dissolved oxygen results in nuisance algal blooms that further depress dissolved oxygen levels and have other deleterious effects, such as the replacement of Puget Sound's forage fish with jellyfish, and other food web and water quality changes.

Under WAC 173-201A-400, a discharger shall be required to fully apply All Known and Reasonable Technologies (AKART) prior to being authorized a mixing zone. The Tribe believes that other technologies, specifically membrane bioreactor (MBR) technology, offers viable and feasible approaches to improve effluent quality, ensuring compliance with permit limits without the use of mixing zones. For CSO discharges, we question whether Ecology has the authority to assign dilution factors and mixing zones at all, and especially not for toxic chemicals. The Tribe incorporates the comments provided by Puget Soundkeeper and Washington Conservation Action by reference.

The permit needs to be revised to authorize only temporary mixing zones and require a defined process, including benchmarks, to upgrade treatment that will meet effluent limits at the point of discharge (e.g., MBR technology).

VIII. The Tribe Requests that the Permit Require Sediment Monitoring at the Alki and Carkeek CSO Treatment Facilities.

The draft permit requires sediment monitoring in the vicinity of the Barton CSO outfall (057), Martin Luther King Jr. Avenue Regulator outfall (013), and the Henderson Pump Station outfall (045) based on the 2012 Post Construction Monitoring Plan (PCMP) for King County CSO Controls and the 2018 King County Sediment Management Plan (SMP) Update.

The fact sheet states that the most recent sediment data from these two sites were collected in 2001 and 2000, respectively. At that time, all detected chemicals were less than their respective SQS criteria or LAET values. Given the fact that there were no historical SMS exceedances, and because source conditions have not changed, no additional sediment monitoring is required in this permit. The Tribe believes that 20-year-old sediment data may not reflect current conditions and sediment monitoring should be required to confirm sediments in the vicinity of the discharge points meet SMS criteria.

IX. Combined Sewer Overflows Cannot Cause an Exceedance of the Sediment Management Standards.

The draft permit fact sheet explains that, among other regulations, the sediment management standards apply to domestic wastewater NPDES permits, Fact Sheet at 7, and this permit "has a role in assuring [CSO outfall] discharges comply with the Sediment Management Standards," Fact Sheet at 50. Section 11.A. of the current NPDES permit states, regarding combined sewer overflow discharge locations: "This permit does not authorize discharges from CSO outfalls that threaten characteristic uses of the receiving water as identified in the water quality standards, Chapter 173-201A WAC, *or that result in an exceedance of the Sediment Management Standards, Chapter 173-204 WAC*." (emphasis added). Section 11.A. of the draft permit uses different language: "In accordance with chapters 173-201A-400(4) and 173-245-015 WAC, this permit does not authorize a mixing zone or discharge from a CSO outfall when doing so causes adverse impacts that threaten characteristic uses of the receiving water, cause a loss of sensitive or important habitat, or adversely affects public health."

Why does the draft permit remove the language that is in the current permit stating that the permit does not authorize CSO outfalls that result in an exceedance of the Sediment Management Standards? The removal of that language will only serve to create confusion, when it should be clear that the permit does not and cannot authorize a discharge that would result in an exceedance of the Sediment Management Standards. Clean Water Act Section 402(o) prohibits backsliding, or reissuing a permit with effluent limitations that are less stringent than comparable effluent limitations in the previous permit, subject to certain exceptions. 33 U.S.C. § 1342(o); *see also* 40 C.F.R. § 122.44(l)(1). This change appears to violate the Clean Water Act's backsliding prohibition, or at least the spirit of that prohibition. The Tribe requests that the final permit maintain the language that the permit does not authorize CSO outfalls that result in an exceedance of the Sediment Management Standards or clearly explain the agency's intent with respect to the Sediment Management Standards.

X. The Final Permit Should Require Notices Be Provided to the Suquamish Indian Tribe.

As Ecology is aware and as described in these comments, Puget Sound, including those portions into which King County's West Point WWTP and CSO system discharge, are of existential importance to the Tribe and its members. As a sovereign that is directly affected by King County's discharges, the Tribe requests that all reporting required under the final permit, including but not limited to all non-compliance reporting and all immediate reporting to Ecology, the Department of Health Shellfish Program, and local health jurisdictions, be provided to the Tribe at the same time. King County must already report certain instances of non-compliance to the Tribe under the 2022 settlement agreement, and similar reporting requirements to affected Tribes are becoming more common place in the region. *See, e.g.*, NPDES Permit Issued by EPA to the U.S. Navy for the Naval Magazine WWTP (to become effective on October 1, 2023), https://www.epa.gov/system/files/documents/2023-06/R10-NPDES-Naval-Magazine-Indian-Island-WA0021997-Final-Permit-2023.pdf (Special Condition III.G.4 at page 25).

The Tribe also directs Ecology's attention to Washington Conservation Action's important comments regarding public transparency and accountability section.

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Thank you for the opportunity to comment on the draft individual King County Wastewater Treatment Division West Point Wastewater Treatment Plant and Combined Sewer Overflow System NPDES permit. We are available at your convenience to discuss these comments and to answer any questions you may have about them. You may contact Denice Taylor at dtaylor@suquamish.nsn.us in regard to these comments. We look forward to seeing our comments addressed in the final permit.

Sincerely,

/s/ Alison O'Sullivan

Alison O'Sullivan
Ecosystem Recovery Program Manager
Natural Resources Department
Suquamish Indian Tribe

ATTACHMENT

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Technical Memorandum

Date: July 6, 2023

To: Suquamish Indian Tribe, Office of Tribal Attorney; Kendra Martinez, Esq.; Jane Steadman, Esq.

From: Kevin Draganchuk, P.E., BCEE

Re: Draft NPDES Permit WA0029181 – King County Wastewater Treatment Division West Point Wastewater Treatment Plant and Combined Sewer Overflow System

CEA Engineers, P.C. Job No.: J23-04

On behalf of the Suquamish Indian Tribe ("Tribe"), this Technical Memorandum conveys an evaluation by CEA Engineers, P.C. ("CEAPC") of the Draft National Pollutant Discharge Elimination System ("NPDES") Permit No. WA0029181 ("Draft Permit") for the King County ("County") Department of Natural Resources and Parks Wastewater Treatment Division West Point Wastewater Treatment Plant ("West Point WWTP") and Combined Sewer Overflow ("CSO") System developed by the State of Washington Department of Ecology ("Ecology") issued for public comment on April 5, 2023. CEAPC evaluated the Draft Permit for adequacy to be protective of public health and well-being and environmental and ecological resources and in accordance with the general standard of care to adhere to best engineering practices and industry standards in the wastewater treatment and combined/sanitary sewer system industries ("Industry Standards").

Documents Relied Upon

CEAPC relied upon the following documents in completing its evaluation and this Technical Memorandum:

- State of Washington Department of Ecology, Draft National Pollutant Discharge Elimination System Permit No. WA0029181, King County Wastewater Treatment Division West Point Wastewater Treatment Plant and Combined Sewer Overflow System.
- State of Washington Department of Ecology, Fact Sheet for NPDES Permit WA0029181, West Point Wastewater Treatment Plant and Combined Sewer Overflow System, April 5, 2023. ("Fact Sheet")
- State of Washington Department of Ecology, West Point Draft Permit Information Session.
- State of Washington Department of Ecology, National Pollutant Discharge Elimination System Permit No. WA0029181, King County Wastewater Treatment Division - West

Point Wastewater Treatment Plant & Combined Sewer Overflow System, Effective February 1, 2015. ("Current Permit")

Collection System Overview

The County's wastewater collection system infrastructure conveys wastewater to the West Point WWTP and consists partially of a combined sewer system ("CSS") to collect and convey both sanitary sewage and stormwater runoff and a separate sanitary sewer system ("SSS") to collect and convey sanitary sewage, including from numerous tributary jurisdictions with service agreements with the County. The SSS discharges to the CSS for ultimate conveyance to West Point WWTP for treatment.[1]

The West Point WWTP treatment train consists of primary treatment, secondary treatment through the activated sludge process, and chlorine disinfection. Fully treated effluent discharges through Outfall 001 to Puget Sound.[2,3]

During wet weather conditions when instantaneous flows exceed 300 million gallons per day ("MGD"), the design capacity of the secondary treatment process at West Point WWTP, the excess flows bypass secondary treatment and receive only primary treatment and disinfection prior to discharge to Outfall 001 ("Bypass"). Bypass is authorized by the Current Permit under these wet weather conditions, and the Draft Permit proposes to continuing Bypass authorization.[4]

The CSS includes five CSO treatment facilities that treat combined sewage flows in excess of the CSS capacity through primary settling to reduce solids loading and disinfection to reduce bacteria loading in discharges from the CSO treatment facilities. The five CSO treatment facilities include: [5]

- Elliott West
- Henderson/MLK
- Carkeek
- Alki
- Georgetown

Disinfection at Georgetown is performed using ultraviolet radiation.[6] The other four CSO treatment facilities utilize chlorine disinfection and subsequently dechlorinate CSO discharges

1 King County, Clean Water Plan, Existing Conditions Report, April 2020, pages 41 and 43.
2 State of Washington Department of Ecology, Draft National Pollutant Discharge Elimination System Permit No. WA0029181, King County Wastewater Treatment Division West Point Wastewater Treatment Plant and Combined Sewer Overflow System, page 2. (Hereafter, "Draft Permit").
3 State of Washington Department of Ecology, Fact Sheet for NPDES Permit WA0029181, West Point Wastewater Treatment Plant and Combined Sewer Overflow System, April 5, 2023, pages 12 - 13. (Hereafter, "Fact Sheet").
4 Draft Permit, pages 31 and 47.
5 Draft Permit, page 2.
6 Draft Permit, page 2.

through addition of sodium bisulfite.[7] The chlorine disinfection/dechlorination process introduces an additional pollutant to CSO discharges, total residual chlorine ("TRC") that requires monitoring and effluent limitations at Elliott West, Henderson/MLK, Carkeek, and Alki.[8]

The CSS includes 38 permitted CSO outfalls for discharges of combined sewage when flows exceeded regulated capacity of the CSS at the CSO outfall locations.[9]

Draft Permit Lacks Requirements for Inflow and Infiltration Reductions

Based on historical flow records, approximately 25% of flows to the West Point WWTP consist of inflow and infiltration ("I&I") and 75% of peak flows in the SSS result from rainfall-derived inflow and infiltration ("RDII").[10,11]

Wastewater flow in an SSS consists of base sanitary flow, groundwater infiltration, dry weather inflow, and RDII. Infiltration results from groundwater seepage into the SSS through structural defects, such as faulty joints between pipes or service connections, defects in manhole walls, or defects in pipes.[12] Inflow results from stormwater runoff that enters an SSS through directly connected roof leaders, foundation drains, sump pumps, cellar drains, yard drains; cleanouts; defective manhole covers; and improper connections between the sanitary and storm sewers. Inflow can also occur in dry weather from sump pumps or foundation drains that receive groundwater under dry conditions or from structurally defective SSS infrastructure that traverses surface waters.[13,14,15,16]

Stormwater inflow to a CSS differs from inflow to an SSS, since a CSS is intended and designed to collect and convey stormwater flows. An SSS is not designed to collect and convey stormwater flows, which are intended for collection and conveyance by a separate storm sewer system in areas with an SSS.

34 independently owned and operated collection systems discharge to the County collection system. The combined length of the 34 independent collection systems ("ICS") is over 5,900 miles of pipelines.[17] The County's current service agreements with ICS do not contain

7 Fact Sheet, pages 19, 21, 23, 26.
8 Draft Permit, pages 10 and 11.
9 Draft Permit, page 2 and Special Condition S.11, pages 47-48.
10 Fact Sheet, page 14.
11 King County, Clean Water Plan, Existing Conditions Report, April 2020, page 60.
12 Service connections are the locations where lateral pipes enter mains.
13 Water Environment Federation, Wastewater Collection Systems Management Seventh Edition, Manual of Practice No. 7, 2021, page 6.
14 Water Environment Federation, Prevention and Control of Sewer System Overflows, WEF Manual of Practice No. FD-17, Third Edition, 2011, pages 28 and 176.
15 2016 WCS O&M Manual, pages 4-1 and 4-2.
16 United States Environmental Protection Agency, Guide for Estimating Infiltration and Inflow, June 2014.
17 King County, Clean Water Plan, Existing Conditions Report, April 2020, pages 40 - 41.

restrictions on the flow quantity discharged to the County collection system and do not provide incentives for ICS to reduce flows by identifying and eliminating I&I sources.[18]

CEAPC Comment

The Draft Permit fails to address excess flows resulting from I&I in a meaningful way. The Draft Permit requires as part of the County's operation and maintenance program that the County strictly enforce its sewer ordinances to not allow connection of inflow sources to the SSS, such as roof drains or foundation drains, but contains no means of monitoring this requirement.[19] The only other requirement the Draft Permit includes for reducing RDII is *consideration* of I&I removal methods within a plan for maintaining adequate capacity at the West Point WWTP. Development of such a plan is only triggered through either the actual flow or waste loads to West Point WWTP reaching 85% of the design criteria for three consecutive months or flow or loading projections reaching design capacity within five years.[20] Either triggering event occurring is unlikely, meaning that the Draft Permit will most likely not force action to reduce excess flows resulting from I&I, but rather maintain the status quo. Even if one of the two triggering events occurred, the County would not have to take any measures to actually identify and eliminate RDII sources, but would only have to *consider* them in a plan.

The lack of requirements in the Draft Permit to address excess flows resulting from RDII is problematic because RDII contributes to CSOs, sanitary sewer overflows ("SSOs"), CSO treatment facility discharges, Bypass, and emergency bypasses at the West Point WWTP influent control structure ("Emergency Bypass"), all of which result in the discharge of elevated pollutants loads to the environment, including pathogens, nutrients, and oxygen-demanding substances, that can adversely impact public health and well-being and environmental and ecological resources. SSOs and dry weather CSOs are prohibited by the Draft Permit, and, in addition to authorized Bypass, require immediate reporting to Ecology, the Department of Health Shellfish Program, and local health jurisdiction due to their potential adverse impacts to public health and well-being.[21]

Consistent with Industry Standards and with common NPDES permitting requirements, Ecology should include requirements in the Draft Permit for the County to implement an I&I removal program in the County-owned and operated portions of its SSS that convey flows to the West Point WWTP and the ICS SSS that convey flows to the County's collection system for treatment at the West Point Treatment Plan in order to reduce the occurrence of untreated wastewater discharges through CSOs, SSOs, and Emergency Bypass and partially-treated wastewater

18 Fact Sheet, page 15.
19 Draft Permit page 34,
20 Draft Permit, pages 31 – 32.
21 Draft Permit, page 28.

through CSO treatment facility discharges and Bypass. [22,23,24,25,26] Areas of the SSS identified with excessive RDII should be prioritized for pipe and manhole inspections and illicit inflow source identification investigations (e.g., smoke testing) and I&I source removal through prioritized manhole and pipe rehabilitation and illicit inflow source elimination. The Draft Permit should include a compliance schedule for completion of the I&I removal program within the term of the Permit, a required level of I&I removal resulting from the I&I removal program, and clear demonstration through flow monitoring results that the County achieved the required level of I&I removal.

Also consistent with Industry Standards, King County and the ICS should address privately sourced I&I to have the most effective I&I removal program possible. Recent I&I removal efforts by the City of St. Petersburg, Florida identified that private I&I source removal through service lateral pipe rehabilitation combined with public I&I source removal through main pipe and manhole rehabilitation resulted in a 64% reduction in total RDII, while public source removal alone resulted in only a 30% reduction in RDII.[27] In support of environmental justice and to ensure the most effective I&I removal efforts possible, St. Petersburg instituted a program to assist private property owners with the costs of inspecting and rehabilitating private service laterals.[28] The County and ICS should consider funding and implementing a similar comprehensive I&I reduction program addressing private and public I&I source removal to reduce excess flows in the County collection system and to West Point WWTP.

Lack of Nitrogen Permit Effluent Limits

West Point WWTP is a dominant total inorganic nitrogen ("TIN") loader to Puget Sound, defined by the Puget Sound Nutrient General Permit ("Nutrient General Permit") as a discharger of more than 2,000 pounds TIN/day ("lb/d").[29] The Nutrient General Permit does not contain

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22 United States Environmental Protection Agency, Guide for Estimating Infiltration and Inflow, June 2014.

23 American Society of Civil Engineers, United States Environmental Protection Agency, and Black and Veatch Corporation, Sanitary Sewer Overflow Solutions Guidance Manual, EPA Cooperative Agreement # CP-828955-01-0, April 2004, pages ES-1 and 1.

24 United States Environmental Protection Agency, "National Pollutant Discharge Elimination System (NDPES), Sanitary Sewer Overflows Frequent Questions," June 21, 2022. https://www.epa.gov/npdes/sanitary-sewer-overflow-sso-frequent-questions, last accessed June 29, 2023.

25 New York State Department of Environmental Conservation, State Pollutant Discharge Elimination System (SPDES) Discharge Permit, SPDES Number: NY-0026697, Permittee: Westchester County Department of Environmental Facilities, New Rochelle Sanitary Sewer District WWTP.

26 New York State Department of Environmental Conservation, State Pollutant Discharge Elimination System (SPDES) Discharge Permit, SPDES Number: NY-0026701, Permittee: Westchester County Department of Environmental Facilities, Mamaroneck Sanitary Sewer District WWTP.

27 City of St. Petersburg Private Laterals I/I Pilot Study Report, January 2023.

28 City of St. Petersburg, Lateral Line Rehabilitation, 2023, https://www.stpete.org/residents/current_projects/lateral_lines_rehabilitation_project.php. Accessed July 6, 2023.

29 State of Washington Department of Ecology, Puget Sounds Nutrient General Permit, Effective Date: January 1, 2022, pages 7 and 53 and Table 3. (Hereafter, "Nutrient General Permit").

effluent limits, but rather requires that TIN loaders achieve an Action Level that indicates treatment effectiveness.[30] The Action Level for West Point WWTP's only permitted outfall, Outfall 001, is 6,670,000 pounds TIN/year, which equates to a permitted daily average TIN discharge of over 18,000 lb TIN/day that is more than nine times greater than the Nutrient General Permit threshold for defining a dominant loader.[31] Though not technically an effluent limit, the Action Level allows the County to discharge on average over nine tons of nitrogen daily to Puget Sound.

Dominant loaders are required to complete a Nutrient Reduction Evaluation ("NRE") for review by Ecology by December 31, 2025, that provides a pathway to achieving an annual average concentration of 10 mg TIN/l and a seasonal average concentration between April and October of 3 mg TIN/l (collectively, "Nutrient General Permit TIN Concentrations"). Dominant loaders that demonstrate to Ecology in their annual reports that they are already achieving the Nutrient General Permit TIN Concentrations and their Action Levels do not need to prepare an NRE.[32] The Nutrient General Permit TIN Concentrations are not effluent limits, but rather are guidance values that require additional action if not achieved.

CEAPC Comment

Further examination of West Point WWTP effluent TIN discharges demonstrate that Ecology should consider more stringent requirements in the Draft Permit than those contained in the Nutrient General Permit to be protective of Puget Sound and the Salish Sea. TIN is the sum of nitrite-nitrogen, nitrate-nitrogen, and ammonia-nitrogen. Between January 2015 and December 2021, effluent from West Point WWTP Outfall 001 contained an average of 25.5 mg TIN/l, far in excess of the Nutrient General Permit TIN Concentrations.[33] The monthly average flow from Outfall 001 was 92.3 MGD, which equates to a daily average load of 19,600 lb/d that exceeds West Point WWTP's Action Level.

It is essential for Ecology to consider that the Nutrient General Permit pertains solely to Outfall 001. The Draft Permit authorizes TIN-containing discharges not only from Outfall 001, but also the five CSO treatment facilities and 38 CSOs that are not covered under the Nutrient General Permit. As a result, even if West Point WWTP begins to meet its Action Level and achieves the Nutrient General Permit TIN Concentrations, it is highly likely that the true TIN loads from the discharges authorized by the Draft Permit exceed the requirements of the Nutrient General Permit. Furthermore, if the performance identified in the Fact Sheet for West Point WWTP persists and it does not meet its Action Level and does not achieve the Nutrient General Permit TIN Concentrations, the Draft Permit is authorizing TIN loads that likely far exceed the requirements of the Nutrient General Permit and will continue to do so for years into the future through subsequent permit cycles due to the required NRE submission date and lengthy

30 Nutrient General Permit, page 42.
31 Nutrient General Permit, page 12 and Table 5.
32 Nutrient General Permit, pages 16 – 17.
33 Draft Permit, page 39, Table 19.

timeframe to implement capital projects to improve TIN removal from influent wastewater to West Point WWTP.

Based on CEAPC's experience in wastewater engineering and NPDES permitting for wastewater treatment plants that discharge to sensitive marine waters adversely impacted by nitrogen in New York, Connecticut, and Florida, including Long Island Sound adjacent New York and Connecticut and Tampa Bay, Sarasota Bay, the Manatee River, and the Eastern Gulf of Mexico adjacent to Florida, it is common practice for permitting authorities to include stringent NPDES permit effluent limits for maximum and average total nitrogen ("TN") concentrations and loads (typically on an annual average basis). Annual average total nitrogen concentrations are often permitted up to advanced wastewater treatment ("AWT") standards of 3 mg TN/l.[34,35,36,37] TN consists of TIN and organic nitrogen, the latter of which is present at low concentrations in domestic wastewater (often ~ 1 mg/l) but difficult to remove and thus results in a higher level of TIN removal to achieve permit effluent limits.

Considering West Point's recent effluent TIN concentrations and loads and its identification as the second-largest dominant loader based on Action Levels in the Nutrient General Permit, Ecology should implement an expediated compliance schedule for development and implementation of an NRE beyond what is required in the Nutrient General Permit and interim effluent limits for TIN concentration and loads from Outfall 001. Inclusion of these requirements in the Draft Permit will begin moving West Point WWTP towards achieving the Nutrient General Permit TIN Concentrations, compliance with Nutrient General Permit, and improved water quality in Puget Sound and Salish Sea.

Elliott West

The proposed TRC effluent limit for Elliott West in the Draft Permit reduces the existing effluent limit of 109 µg/l to 33.8 µ/l, a nearly 70% reduction.[38] The average TRC from 95 samples collected between January 2015 and December 2021 at Elliot West was 297.69 µg/l, far in excess of both the existing and proposed TRC effluent limit.[39] During the same time period, Elliott West exceeded the TRC effluent limit 49 times, the most recent of which were once in December 2020 and twice in January 2021.[40]

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34 Florida Department of Environmental Protection, State of Florida Domestic Wastewater Facility Permit, City of Largo, Permit Number: FL0026603, Revision Date: June 24, 2021.

35 Florida Department of Environmental Protection, State of Florida Domestic Wastewater Facility Permit, City of Bradenton, Permit Number: FL0021369, Effective Date: September 9, 2020.

36 New York State Department of Environmental Conservation, State Pollutant Discharge Elimination System (SPDES) Discharge Permit, SPDES Number: NY-0026701, Permittee: Westchester County Department of Environmental Facilities, Mamaroneck Sanitary Sewer District WWTP.

37 New York State Department of Environmental Conservation, State Pollutant Discharge Elimination System (SPDES) Discharge Permit, SPDES Number: NY-0026697, Permittee: Westchester County Department of Environmental Facilities, New Rochelle Sanitary Sewer District WWTP.

38 Fact Sheet, page 98, Table 49 – Elliott West CSO treatment plant (Outfall 027b) Limit Comparison.

39 Fact Sheet, page 43, Table 23 – Elliott West CSO Treatment Plant Effluent Characterization.

40 Fact Sheet, pages 152 - 155, Elliott West CSO Treatment Plant Violations.

CEAPC Comment

The Draft Permit requires the County to plan and design improvements to Elliot West to ensure compliance with the conditions of the Draft Permit and provides Ecology the ability to review, comment on, and approve the County's submissions, including the engineering report, plans and specification.[41] Considering the history of TRC exceedances of the effluent limit at Elliott West, Ecology should strongly consider requiring that the County implement ultraviolet disinfection at Elliott West. Implementation of ultraviolet disinfection will entirely eliminate TRC from Elliott West discharges, thus providing a clear environmental and ecological benefit, and will benefit the County by eliminating the potential for penalties resulting from NPDES Permit violations resulting from discharges of TRC from Elliott West in excess of the effluent limit.

Henderson/MLK Copper Effluent Limit Determination

The outfall from Henderson/MLK discharges into the Duwamish River ("Duwamish") at approximately river kilometer 10.5 along its northern bank at a depth of approximately 12 feet below the water surface. This portion of the Duwamish is less tidally influenced and more influenced by the Green River, leading Ecology to consider it freshwater in nature rather than estuarine.[42]

Ecology calculated an aquatic life daily maximum copper effluent limit ("copper effluent limit") of 12.3 µg/l based on marine criteria, though it does not consider the Duwamish to be estuarine in nature at the Henderson/MLK outfall location. The reasonable potential analysis used by Ecology to determine if water quality based effluent limits are needed in the Draft Permit is based on relatively consistent discharge conditions; however, Henderson/MLK historically discharges between one and three times per year for approximately 14 hours during each discharge.[43] Based on the frequency and duration of discharges from Henderson/MLK and consideration Duwamish as a freshwater at the discharge location, Ecology determined that a "performance-based" copper effluent limit of 22.3 µg/l consistent with the 95th percentile of copper monitoring results between 2014 and 2019 was "appropriate" and adequate to protect aquatic life based on a freshwater criteria.[44]

CEAPC Comment

Ecology discusses in the Fact Sheet that evaluating the discharge from Henderson/MLK using freshwater conditions and criteria "suggests" that existing copper concentrations "may not result in toxicity in freshwater aquatic life"; however, no evaluation or calculations based on freshwater conditions or criteria are included in the Fact Sheet and Ecology's basis for its discussion is unclear.[45] Hardness-dependent freshwater aquatic life criteria can be calculated in accordance

41 Draft Permit, pages 60 and 61.
42 Fact Sheet, pages 80 – 82.
43 Fact Sheet, pages 27, 94 and 138 and Table 8 – Henderson/MLK CSO Treatment Plant Performance.
44 Fact Sheet, pages 44 and 94 and Table 24 – Henderson/MLK CSO Treatment Plant Effluent Characterization.
45 Fact Sheet, page 94.

with the Washington State water quality standards.[46] The performance-based copper effluent limit is based on only nine samples collected between January 2015 and December 2021.[47]

Considering the limited number of effluent copper samples collected, the overall limited number and duration of discharges from Henderson/MLK, and the freshwater nature of the Duwamish at the Henderson/MLK outfall location, Ecology needs to clearly demonstrate that the performance-based daily maximum copper effluent limit of 22.3 µg/l will be protective of aquatic life and achieve acute freshwater water quality criteria. If it is not, Ecology needs to revise the daily maximum copper effluent limit for Henderson/MLK to ensure it is protective of aquatic life.

Furthermore, setting the copper effluent limit at the 95th percentile of the nine samples which has proven readily achievable by discharges from Henderson/MLK means that achieving the copper effluent limit will maintain the status quo and is unlikely to result in water quality improvements and improved protection of aquatic life in the Duwamish. Furthermore, if discharges from Henderson/MLK tend closer to simply meeting the readily achievable copper effluent limit (meaning consistent discharge concentrations near but not exceeding 22.3 µg/l), a degradation in water quality and protection of aquatic life would result, since average overall acute loads would increase (assuming similar flows).

Improvements in the Draft Permit from the Current Permit

The Draft Permit includes several provisions that are improvements over the Current Permit for protecting public health and well-being and environmental and ecological resources, including:

- new or reduced effluent limits for the County's CSO treatment facilities, including:[48,49]
  - lower TRC effluent limits at Elliot West, Alki, and Henderson/MLK
  - new copper effluent limit at Henderson/MLK
  - new zinc effluent limit at Elliott West
  - new interim copper effluent limit at Elliott West that will remain in place through the term of the new NPDES permit[50]
  - Upon completion of the upgrades to Elliott West, which likely will take a number of NPDES permit cycles, the final copper limit included in the Draft Permit will take effect.[51]
- efforts to reduce discharges of Per-/Polyfluorinated substances ("PFAS")[52,53]

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46 Washington Administrative Code, Title 173, Ecology, Department of, Chapter 173, Water Quality Standards for Surface Waters of the State of Washington, Section 240 Toxic Substances, https://app.leg.wa.gov/WAC/default.aspx?cite=173-201A-240. Accessed June 29, 2023.
47 Fact Sheet, page 44, Table 24 – Henderson/MLK CSO Treatment Plant Effluent Characterization.
48 Draft Permit, pages 10 – 12.
49 Fact Sheet, pages 2 and 97 - 99.
50 Draft Permit, page 12.
51 Draft Permit, page 12.
52 Fact Sheet, page 103.
53 Draft Permit, page 43.

- influent monitoring for PFAS at West Point WWTP during 2025 and 2026[54]
  - CEAPC Comment: The Draft Permit should require that influent monitoring for PFAS begin once the NPDES Permit is effective and not delay commencing monitoring until 2025. Developing an influent monitoring program for PFAS is not a lengthy process and could be initiated prior to the effective date as long as the County is aware it will be required.
- identification of potential industrial users ("IU") discharging PFAS to the County collection system and submission by the County of an updated IU inventory identifying potential IU discharges of PFAS by April 30, 2025.
- inclusion of a pretreatment permit requirement that IUs identified as known or suspected PFAS sources complete a PFAS pollution prevention and source reduction evaluation
- evaluation by the County of PFAS pollution prevention strategies and best management practices for inclusion in future pretreatment permits

[54] Draft Permit, page 17.

Suquamish Tribe's Supplemental Comments on West Point NPDES Permit (Oct. 19, 2023)

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http://www.suquamish.nsn.us

THE SUQUAMISH INDIAN TRIBE

PO Box 498 Suquamish, WA 98392-0498

Sent via email to tricia.miller@ecy.wa.gov and sean.wilson@ecy.wa.gov

October 19, 2023

Tricia Miller
Permit Administrator
WA State Dept of Ecology - NWRO
PO Box 330316
Shoreline, WA 98133-9716

RE: Supplemental Comment on West Point Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge Draft Permit, Permit WA0029181

Dear Ms. Miller,

On July 7, 2023, the Suquamish Indian Tribe submitted comments on the West Point Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge Draft Permit, Permit WA0029181. At pages 3 to 7, the Tribe explained Ecology should include nutrient effluent limits in West Point's individual permit and not punt those needed controls to the largely stayed Puget Sound Nutrient General Permit (PSNGP). On September 14, the Court of Appeals, Division II issued a decision in *City of Tacoma v. State of Washington Department of Ecology*, No. 39494-8-II, concluding some or all of the PSNGP is unlawful. **While the Tribe disagrees with that conclusion and appreciates that Ecology petitioned for Washington Supreme Court review earlier this week, the decision and uncertainty it causes further reinforce the need to address nutrient pollution now in West Point's individual permit.** Ecology's stated justification for disclaiming such limits during the renewal opportunity of this individual permit based on PSNGP coverage that is not and may never become effective is irrational and unacceptable.

The PSNGP has substantively been stayed for nearly two years and the Court of Appeals decision will further extend that stay. Even if the Court of Appeals Decision is reversed by the Supreme Court, there remains a Pollution Control Hearings Board appeal at its early stages that all but guarantees that the PSNGP will be largely stayed for multiple more years, wasting most, if not all, of the PSNGP's five-year term. The Puget Sound is impermissibly unprotected all this time.

West Point continues to discharge the highest nutrient load of any plant into the Puget Sound. And the permittee itself is arguing in the Pollution Control Hearings Board appeal that the PSNGP is unlawful and the nutrient requirements it contains must be accomplished through individual permits. *See* Permittee Appellants' Joint Motion for Partial Summary Judgment on

Threshold Issues, PCHB No. 21-082c, at 1-2, 14-21 (March 18, 2022); Permittee Appellants' Reply in Support of Joint Motion for Partial Summary Judgment on Threshold Issues, PCHB No. 21-082c, at 3-10 (April 29, 2022). While the Tribe agrees with Ecology that the permittee is incorrect, Ecology should accept the permittee's invitation to control nutrients in the individual permit; there is no reason to wait.

Ecology has a legally and factually supportable mandate to include nutrient effluent limits in the individual permit, which are untouched even by a broad interpretation of the Appeals Court decision. When issuing a permit, Ecology must ensure that "all known, available, and reasonable methods of treatment"—or AKART—are implemented by treatment plants. RCW 90.52.040, 90.54.020. The Appeals Court did not address or limit this obligation. Ecology is aware of technology limiting nitrogen discharges to 3 mg/L. The Tribe reiterates its requests that Ecology make a site-specific finding on AKART for the removal of nutrient pollutants from West Point's discharges and set water quality based effluent limits. Additionally, the Appeals Court found that the Salish Sea Bounding Scenarios Report's (BSR's) area measurement method of compliance with the dissolved oxygen standard and the BSR's conclusions based on its modeling that there's a dissolved oxygen impairment in Puget Sound caused by humans were not unlawful. Ecology can and should rely on these well-supported findings. As the largest nutrient discharger, Ecology must recognize that West Point's discharges of nutrients cause or contribute to violations of water quality standards in the receiving waters and, accordingly, must include properly derived numeric effluent limits for nutrients in the Permit. *E.g.*, 40 C.F.R. § 122.44(d)(1)(iii); WAC 173-201A-510(1).

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Thank you for considering our comments and supplemental comments on the draft individual King County Wastewater Treatment Division West Point Wastewater Treatment Plant and Combined Sewer Overflow System NPDES permit. The Suquamish Indian Tribe will also be contacting Director Watson regarding this important issue, and we are available at Ecology's convenience to discuss these comments and to answer any questions you may have. You may contact Denice Taylor at dtaylor@suquamish.nsn.us regarding the comments. We look forward to Ecology's response to each of our comments and seeing them addressed with changes to the final permit.

Sincerely,

/s/ Alison O'Sullivan

Alison O'Sullivan
Ecosystem Recovery Program Manager
Natural Resources Department
Suquamish Indian Tribe

cc
Ron Lavigne, Senior Counsel, Washington State Office of the Attorney General, Ecology Division

Letter from Chairman Leonard Forsman to Ecology Director Laura Watson re West Point NPDES Permit (Dec. 1, 2023)

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THE SUQUAMISH INDIAN TRIBE

PO Box 498 Suquamish, WA 98392-0498

Sent via email

December 1, 2023

Laura Watson
Director, Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

RE: West Point Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge Draft Permit, Permit WA0029181

Dear Director Watson,

The Suquamish Indian Tribe is writing in regard to the draft National Pollutant Discharge Elimination System ("NPDES") permit under development by the Washington State Department of Ecology ("Ecology") for King County's West Point Wastewater Treatment Plant ("WWTP") (WA0029181). In order to address longstanding harms from West Point WWTP, the Tribe requests that Ecology take the opportunity presently before it to regulate nutrients in the County's individual NPDES permit rather than rely on the uncertain future of the Puget Sound Nutrient General Permit ("PSNGP").

The Suquamish people have lived, fished, hunted, and gathered in and around Puget Sound since time immemorial. The Suquamish Indian Tribe takes its name from the traditional Lushootseed phrase for "people of the clear salt water" and is signatory to the 1855 Treaty of Point Elliot, in which the Tribe forever reserved the right to take fish in its usual and accustomed fishing areas (U&A). Suquamish U&A encompasses Elliott Bay and other water bodies into which King County's wastewater collection and treatment system discharges that are connected to U&A waters.

West Point WWTP is a major source of pollution in Elliott Bay, and the Tribe and its members have long been harmed by the County's discharges, which foul the water and habitat for aquatic species, result in the posting of health advisories and closure of beaches where Suquamish tribal members harvest shellfish, prompt recalls of commercially sold shellfish, interfere with tribal member harvest and sale of salmon, and disturb important cultural activities such as the annual Canoe Journey. In addition to being a major source of fecal coliform pollution, West Point WWTP is the number one source of anthropogenic nutrient pollution in Puget Sound.

To date, Ecology has never required that West Point WWTP reduce its nutrient loads. Ecology's stated justification for not including nutrient (total inorganic nitrogen) effluent limits in the West Point WWTP NPDES permit currently under consideration has been based on supposed coverage under the PSNGP (Fact Sheet at 83), which Ecology issued on December 1, 2021. However, any PSNGP requirements that might actually result in nutrient reductions have never been—and may never become—effective. Less than three weeks after the PSNGP's effective date, all such provisions were stayed pending resolution of a consolidated Pollution Control Hearings Board (PCHB) appeal (PCHB No. 21-082c). On top of that, all litigation deadlines in the consolidated appeal were struck well over a year ago pending final resolution of *City of Tacoma v. State of Washington Department of Ecology*, No. 39494-8-II. On September 14, 2023, the Court of Appeals, Division II issued a decision in *City of Tacoma* that suggests some or all of the PSNGP is unlawful. Ecology is currently awaiting a decision from the Washington Supreme Court on its petition for review, but even if the Court of Appeals is reversed, the PCHB appeal is still in its early stages, such that the PSNGP may *expire* before nutrient reduction provisions ever become effective.

This extreme delay in achieving nutrient reductions at West Point WWTP is unacceptable to the Tribe when Ecology can easily incorporate action forcing requirements into the individual NPDES permit under consideration. It is especially frustrating that the agency has resisted this when King County itself is arguing in the PCHB appeal that the PSNGP is unlawful and the nutrient requirements it contains must be accomplished through individual permits. *See* Permittee Appellants' Joint Motion for Partial Summary Judgment on Threshold Issues, PCHB No. 21-082c, at 1-2, 14-21 (March 18, 2022); Permittee Appellants' Reply in Support of Joint Motion for Partial Summary Judgment on Threshold Issues, PCHB No. 21-082c, at 3-10 (April 29, 2022). Ecology can and must accept the permittee's invitation to control nutrients in the individual permit; there is no reason to wait.

In both its July 7, 2023 comments and October 19, 2023 supplemental comments to Ecology's permit writers, the Tribe explained that Ecology has a legally and factually supportable mandate to include nutrient effluent limits in the West Point WWTP individual permit. It has heard nothing to suggest that the agency will do so. The Tribe now feels the need to elevate its request and asks that you direct your staff to address the nutrient problems caused by West Point WWTP through King County's individual permit. Thank you for your consideration of the Tribe's request. The Tribe requests a written response to this request, including an update to the status of the permit.

Sincerely,

DocuSigned by:
F1DAFD9A5D7A4A4...

Leonard Forsman
Chairman
Suquamish Indian Tribe

cc

Ron Lavigne, Senior Counsel, Washington State Office of the Attorney General, Ecology Division