

July 7, 2023

Laura Watson, Director, Washington State Department of Ecology
Vince McGowan, Water Quality Program Manager
Tom Buroker, Northwest Region Director
Tricia Miller, Permit Administrator
RE: West Point Wastewater Treatment Plant NPDES Wastewater Discharge Permit

Dear Director Watson, Mr. McGowan, Mr. Buroker, and Ms. Miller:

The Puget Sound Partnership appreciates the opportunity to comment on the draft NPDES permit for the West Point Wastewater Treatment Plant and associated combined sewer overflow treatment plants. As the state agency leading our region's collective effort to protect and restore Puget Sound, we support every effort to address water quality challenges affecting the Puget Sound ecosystem.

The Partnership is committed to aligning the work of our partners around a shared vision and strategy to achieve the ecosystem recovery goals set for us by the Washington State legislature. To achieve these goals, we coordinate our diverse partners to develop the [Action Agenda for Puget Sound](#)—a comprehensive plan for addressing the many challenges facing Puget Sound and their human and natural causes. In this letter we focus on the relationship between the Action Agenda and the draft permit for the West Point Treatment Plant, which is the largest wastewater treatment plant in Puget Sound. A broader lens compels us to recognize that a strong permit controlling operations at the Plant is necessary but not sufficient to resolve water quality challenges in Puget Sound.

Before diving into specific issues for Puget Sound related to the West Point permit, we highlight general recommendations from the Action Agenda for consideration where appropriate and feasible in Puget Sound wastewater treatment systems. The Puget Sound Partnership is committed to supporting our partners in advancing these ideas in Puget Sound.

- We support advanced wastewater treatment practices to improve effluent and receiving water quality. Technologies such as membrane bioreactors can operate efficiently in small spaces and improve treatment for a wider range of pollutants, including nutrients and toxics.
- We support a shift toward treated and reclaimed water put to beneficial use rather than discharging directly to Puget Sound. A shift to reclaimed water can reduce pollution entering Puget Sound and alleviate pressure on strained freshwater resources by providing gray water for landscaping, industrial, or other appropriate uses. This is especially important considering the observed and expected effects of a changing climate on water resources in the Puget Sound region.
- We support upstream implementation of stormwater best practices, water conservation strategies, and other actions to reduce the volume of water entering the wastewater system. Reducing the volume of water entering the wastewater system will reduce the volume of wastewater effluent and reduce the likelihood of overflows and accidental spills during wet weather events.

- We support utilities, regulators, and state policymakers finding ways to improve wastewater treatment while alleviating financial hardships on low-income households. Recent studies have shown that operational and capital improvements at wastewater facilities can result in increased utility rates and that more ratepayers in the Puget Sound region are likely to experience “financial burden” as defined by Washington state.¹

We focus the remainder of our comments on three Puget Sound recovery goals and water quality priorities relevant to the wastewater permit, which are introduced in the below table.

Puget Sound goal	Vital Sign (indicator of Puget Sound health)	Relevant wastewater pollutant
Healthy humans and quality of life	Condition of shellfish beds and swimming beaches	Pathogens
Clean water	Toxics in aquatic life	Toxics
Clean water	Dissolved oxygen in marine water	Nutrients

1. Addressing the effect of pathogens on shellfish and swimming beaches to ensure healthy humans

Pathogenic bacteria² entering Puget Sound can make the water unsafe for human contact and swimming and make shellfish in Puget Sound unsafe to harvest and eat. Swimming and shellfish harvest are two culturally and economically important uses of Puget Sound and are indicators of Puget Sound health.

The Action Agenda for Puget Sound includes strategies and actions related to technical assistance, monitoring, and implementing priority upgrades that improve wastewater treatment plants’ compliance with discharge limits for pathogenic bacteria.³ Removal of pathogenic bacteria from sewage is a core function of wastewater treatment and modern wastewater treatment practices are effective at removing pathogenic bacteria from wastewater when properly functioning. The Partnership supports the maintained bacteria effluent limits and monitoring regime for the wastewater treatment plant in the proposed permit.

Pathogen pollution can still be a concern, however, when accidents occur or when significant rain events result in combined sewer overflows (CSO). Several high-profile accidental releases of sewage have resulted in beach closures, no contact orders, and impacts to tribal cultural events and treaty-protected rights to shellfish harvest.⁴ For this reason, the Action Agenda also includes strategies and action for addressing CSOs and accidental discharges of untreated sewage. The Partnership appreciates the

¹ See pages 23-31 of the study for recommendations. Susan Burke et al., PUGET SOUND WASTEWATER SERVICE AFFORDABILITY ANALYSIS: IMPLICATIONS FOR IMPLEMENTATION STRATEGIES. CRITICAL ANALYSIS SUMMARY REPORT PREPARED BY ECO RESOURCE GROUP AND PUGET SOUND INSTITUTE FOR THE STORMWATER STRATEGIC INITIATIVE AND PUGET SOUND PARTNERSHIP (2023) available at <https://www.pugetsoundinstitute.org/2023/06/wastewater-fee-study-reveals-hardship-for-low-income-households/>. Financial burden for sewer ratepayers is defined in section [173-98-300](#) of the Washington Administrative Code.

² In this letter we use the term “pathogenic bacteria” to refer to bacteria found in wastewater that can cause illness or disease if ingested by humans. This generally includes fecal coliform bacteria.

³ As it relates to pathogenic bacteria, the Action Agenda is supported by a Shellfish Implementation Strategy—a strategic plan focused on actions to protect healthy shellfish beds and reopen beds closed to harvest. SHELLFISH BEDS IMPLEMENTATION STRATEGY (2015) available at <https://pugetsoundestuary.wa.gov/shellfish-beds/>.

⁴ See e.g., John Ryan, *King County blames power outages for big sewage spills. Tribe blames the county.*, KUOW, Jan. 15, 2021; David Gutman, *King County moves toward \$5 million settlement with Suquamish Tribe over sewage overflows*, SEATTLE TIMES, Sept. 15, 2022.

renewed CSO conditions (including both technology-based and water quality-based requirements) in special condition S11 of the permit, including the authorization of the new Georgetown CSO plant on the Duwamish River and the schedule for improvements at the Elliott West CSO plant. The Partnership also recognizes the importance of the 2013 consent decree addressing CSOs and 2021 Administrative Order addressing power-related disruptions at the West Point plant in comprehensively ensuring adequate treatment for pathogens. The Partnership looks forward to working with our partners to ensure these various agreements successfully address the effect of pathogenic bacteria on shellfish and swimming beaches in Puget Sound.

2. Addressing the effect of toxic chemicals on aquatic life and humans

Wastewater treatment practices are not designed specifically to remove toxics or other chemicals of emerging concern. Yet these toxic chemicals are found everywhere in modern day life, including in our wastewater. The Action Agenda for Puget Sound stresses the importance of identifying and addressing the source of toxic chemical pollution.⁵ The Partnership strongly supports the permit requirement to monitor influent for PFAS and the accompanying program to identify and work with priority sources to reduce or eliminate the use of PFAS before they enter the wastewater system. The source control component should receive support from Ecology's Toxic Reduction program, which has a target in the Action Agenda to accelerate their work with Washington businesses to reduce toxic chemicals and achieve cost savings.

The Partnership encourages King County and Ecology to explore additional characterization monitoring for chemicals of emerging concern and/or targeted studies where feasible and appropriate. Accomplishing this work at the largest wastewater system in Puget Sound could be valuable to further characterize influent and effluent for chemicals whose pollution pathways and severity are not yet fully understood and to help identify where advanced treatment techniques can address emerging toxics. This could include new monitoring of endocrine disrupting chemicals (such as antibiotics, pharmaceuticals, and hormones)⁶ in wastewater and toxic chemicals (such as 6PPD-Q from tires) in stormwater at the CSOs. This could also include comparative studies involving plants with different treatment technology (such as the advanced treatment at Brightwater versus standard treatment at West Point) to study and quantify the ability of advanced treatment to filter out toxic chemicals. By undertaking or funding these studies, Ecology and King County could reveal additional source control opportunities, identify broadly applicable best treatment practices, and make a great contribution to clean water in the entire Puget Sound basin. The Partnership stands ready to assist and support these efforts, including support to address statewide lab capacity where that is a limiting factor on additional research and monitoring efforts.

3. Addressing the effect of nutrients on dissolved oxygen and marine water quality

Excessive nutrient loading in Puget Sound depletes levels of dissolved oxygen in Puget Sound, which can harm salmon and other species of marine life. Nutrient pollution can also contribute to acidification (preventing shellfish and other marine invertebrates from forming shells) and increases in macroalgae abundance (impairing the health of eelgrass beds). Nutrients in Puget Sound come from a variety of

⁵ As it relates to toxics in aquatic life, the Action Agenda is supported by a Toxics in Fish Implementation Strategy—a strategic plan focused on actions to reduce toxic chemicals in fish and the waters of Puget Sound. TOXICS IN FISH IMPLEMENTATION STRATEGY (May 21, 2021) available at <https://pugetsoundestuary.wa.gov/toxics-in-fish/>.

⁶ Suzanne Ball et al., *Exposure of juvenile Chinook salmon to effluent from a large urban wastewater treatment plant. Part 1. physiological responses*, AQUACULTURE AND FISHERIES (2023) available at <https://doi.org/10.1016/j.aaf.2023.06.006>.

sources, including natural background levels and human activities such as agriculture and wastewater treatment. Seasonal conditions influence the relative significance of nutrient levels on Puget Sound: cool temperatures and limited sunlight in the winter provide a natural check on algal productivity and other harmful consequences of nutrient pollution.

Despite this complexity, the Partnership has long recognized the threats posed by excessive nutrient loading from human sources. In 2011, the Leadership Council adopted a resolution calling for a 2020 ecosystem recovery target for dissolved oxygen in marine waters. That target became one of our key indicators of marine water quality in Puget Sound. In explaining that indicator, we emphasized that human sources of nutrients have a significant impact on dissolved oxygen in multiple embayments in the South and Central Puget Sound, and that a combination of nutrient reductions from marine point sources and watershed sources will be needed to meet the indicator target. The Partnership reiterated that point in the 2022-26 Action Agenda, which includes strategies and actions to reduce nutrient discharge from wastewater sources and provide technical and financial support for implementation.⁷ To address nutrient loading reduction in Puget Sound, the Partnership understands that this permit will work in conjunction with the Puget Sound Nutrient General Permit, for which we have previously expressed our support.

In closing, the Partnership expresses our gratitude for the work of the Department of Ecology, King County, and other partners in advancing efforts to protect and restore Puget Sound. We support the proposed permit updates and herein provide our recommendations and support for additional efforts to improve water quality in Puget Sound. We also reiterate a recognition that a strong permit for the West Point Plant is necessary but not sufficient to resolve water quality challenges in Puget Sound. We look forward to working with our partners to address the many other challenges facing Puget Sound.

Sincerely,



Laura L. Blackmore
Executive Director

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Dennis McLerran, Puget Sound Leadership Council Chair
Ruth Musgrave, Senior Policy Advisor for Natural Resources to Governor Jay Inslee
Carrie Sessions, Senior Policy Advisor for Environment and Water to Governor Jay Inslee
Adam Eitmann, Director of Government Relations, Washington Department of Ecology
Don Gourlie, Legislative Policy Director, Puget Sound Partnership

⁷ As it relates to nutrient pollution, the Action Agenda is supported by the Marine Water Quality Implementation Strategy—a strategic plan for reducing nutrient pollution to improve marine water quality in Puget Sound. MARINE WATER QUALITY IMPLEMENTATION STRATEGY available at <https://pugetsoundestuary.wa.gov/marine-water-quality/>. Both the Marine Water Quality Strategy and the Action Agenda also include strategies and actions for scientific modeling and for reducing nutrients from watershed sources that further contribute to overall nutrient loading in Puget Sound.