

King County | Wastewater Treatment

Director's Office

King Street Center, KSC-NR-6200
201 South Jackson Street
Seattle, WA 98104-3854

June 26, 2025

Sean Wilson, P.E.
Permit Manager
Washington State Department of Ecology
Northwest Regional Office
P.O. Box 330316
Shoreline, WA 98133-9716

Final Engineering Report for Elliott West Wet Weather Treatment Station Project

Dear Mr. Wilson:

The King County Wastewater Treatment Division (WTD) is pleased to submit for your review the final engineering report for the Elliott West Wet Weather Treatment Station (EWWTS) Project (project). This is submitted per the milestone stipulated in the Compliance Schedule shown on Table 36 of National Pollutant Discharge Elimination System (NPDES) Permit No. WA0029181, issued April 29, 2024, by the Department of Ecology (Ecology) and effective June 1, 2024.

As a preface to specific comments regarding EWWTS, I'd like to offer a broader frame. As you know, WTD is facing significant increases in our capital program and sewer rate, driven by multiple and concurrent state and federal regulatory requirements, pressing needs for asset renewal and replacement, and capacity improvement needs to support growth mandated by the state Growth Management Act and local comprehensive plans. We are also challenged by an increasingly high-cost construction market where we are seeing fewer and higher bids. Our cost estimates are therefore increasing, including for EWWTS, where construction estimates have increased substantially, practically doubling previous estimates.

As shown in our most recent forecast, WTD's capital program will triple in size or more in the next five years from \$400 million per year to \$1.2 billion per year, and sewer rates are rising dramatically. The level of expenditure and rates will not just dramatically grow in the near term but will also remain high over the 20-year forecast period. The "stacking effect" of multiple drivers (regulatory, capacity, and asset management) on our capital program and resultant significant sewer rate increases means a doubling of King County's sewer rate in the next six years for households and businesses across our service area. Adding to the problem, this forecast does not yet include projects and costs for several additional regulatory needs such as nutrients and chemicals of emerging concern (CECs), such as PFAS. In sum, we are facing not just a single mountain to climb but an extensive range.

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I hope to discuss both the broad frame and how it relates to EWWTS with Ecology, to ensure a clear understanding of this challenge. The balance of this letter will address specifics for EWWTS.

This engineering report describes the modifications required to bring the EWWTS into compliance with permit limits and the anticipated construction schedule. The project will essentially replace the existing facility with a new wet weather treatment station, and will include modifications and upgrades to:

- Improve operation of the Mercer Street tunnel to create additional equalization
- Replace six influent pumps at the influent pump station, and other improvements
- Replace and upgrade the screening facility
- Add ballasted sedimentation technology for solids removal
- Replace the chlorine disinfection system with an ultraviolet light disinfection system
- Complete necessary electrical upgrades

The proposed engineering design is intended to reliably meet the minimum level of combined sewer overflow (CSO) control and improve resiliency to climate change. The appendices provided with this engineering report include the detailed alternatives analysis documentation, 30% design drawings, State Environmental Policy Act (SEPA) supporting documentation, and supporting technical analyses for design flows and water quality compliance.

With this project, the EWWTS is designed to achieve compliance with the technology-based standards for CSO treatment facilities as required by the NPDES permit, including the “Nine Minimum Controls” required by special condition S11.B. We understand that it will therefore meet the requirements for “all known, available and reasonable methods of prevention, control and treatment” (AKART) and thus qualify for a mixing zone authorization under the requirements of WAC 173-201A-400. At this stage, a mixing zone is expected to be necessary to achieve compliance with water quality criteria for Elliott Bay.

The construction schedule included in the Final Engineering Report sets forward a plan of work required to achieve the goal of substantial completion of the EWWTS improvements by December 31, 2031. This schedule remains ambitious given the complexity of the project scope. Based on ongoing schedule analysis and known risk factors including maintaining existing facility operations during construction, permit approvals, labor and supply chain challenges, and the availability of funding, we are closely monitoring progress and potential impacts to the timeline. WTD’s current projections indicate that substantial completion may occur mid-2032. As such, King County may need to request an extension to this deadline.

To support the timeline outlined in the permit conditions, WTD is continuing with final design development, bench-scale testing of the selected treatment technologies, and related activities. This also includes local permitting, external agency coordination, community outreach, and engaging with the selected contractor under the General

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Contractor/Construction Manager project delivery method. To meet the timeline, WTD is undertaking this work concurrently with Ecology's review of the final engineering report, which introduces additional risk and potential cost implications. Your timely review and comments are appreciated to help facilitate project progress.

Please contact Capital Project Manager Rowena Johnson at 206-477-5851 or Rowena.Johnson@kingcounty.gov if you have questions or need additional information.

Sincerely,

Signed by:

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Kamuron Gurol, Division Director
Wastewater Treatment Division
King County Department of Natural Resources and Parks

6/26/2025

Date

cc: Shawn McKone, Municipal Unit Supervisor, Washington State Department of Ecology
Greg Lipnickey, Municipal Compliance Specialist, Ecology
Tara Martich, Clean Water Act Enforcement Specialist, U.S. Environmental Protection Agency, Region 10
Adam Levitan, Assistant Attorney General, Ecology Division, Washington State Office of the Attorney General
John Taylor, Director, Department of Natural Resources and Parks (DNRP)
Verna Bromley, Senior Deputy Prosecuting Attorney, King County Prosecuting Attorney's Office
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