



King County

Department of Natural Resources and Parks
Wastewater Treatment Division
King Street Center, KSC-NR-0500
201 South Jackson Street
Seattle, WA 98104-3855

October 28, 2019

Shawn McKone, P.E.
Municipal Facility Manager
Department of Ecology – Northwest Regional Office
3190 160th Avenue NE
Bellevue, Washington 98009

Robert Grandinetti, NPDES Compliance Unit
U.S. Environmental Protection Agency – Region 10
Office of Compliance and Enforcement
825 Jadwin Avenue, Suite 210
Richland, Washington 99352

RE: Request to Modify King County's Combined Sewer Overflow Consent Decree

Dear Mr. McKone and Mr. Grandinetti:

The purpose of this letter is to formally request initiation of negotiations to modify King County's Combined Sewer Overflow (CSO) Consent Decree (CD) with the United States through the Environmental Protection Agency (USEPA) and the State of Washington through the Washington State Department of Ecology (Ecology), approved and entered by the Court on July 3, 2013 in Civil Action USDC Civil Action No. 2:13-cv-677-JCC. This letter also requests an extension of two interim milestone dates contained within the CD that will likely pass prior to the completion of any potential CD modification. Below are summaries of King County's investments and commitments to controlling CSOs and improving water quality, changed conditions since Court approval of the CD, a description of the interim milestones that would need to be extended, and King County's interest in a CD modification.

King County's commitment to controlling CSOs and improving water quality: King County has a long and successful history of implementing policies, programs, and projects to improve water quality and control CSOs. Starting with the development of the regional wastewater conveyance and treatment system in the 1960's, King County has invested billions of dollars to improve water quality. Since 1999, and the adoption of King County's Regional Wastewater Services Plan, King County has built a new regional wastewater treatment plant, constructed a local treatment plant, reconstructed another local treatment plant, is building a wet weather treatment station, has controlled 19 CSO outfalls, has invested heavily in asset management to prevent spills and sanitary sewer overflows, has increased system-wide wastewater conveyance and treatment capacity to provide for population growth, and has worked to reduce inflow and infiltration to the system. Over the past 60 years, these investments have reduced the discharge of untreated storm and sewer flows from an estimated 20-30 billion gallons per year to an estimated 429 million gallons per year

(MGY) once the current Georgetown and Ship Canal Water Quality Project facilities are operational.

King County's combined sewer system currently captures and treats 96 percent of the annual average flow generated by the combined sewer system on a long-term average. In addition to 19 CSO outfalls that average less than one event per year over a 20-year average, five locations have between one and two CSO events per year, and two locations have between two and six events per year. In total, 26 of King County's 39 CSO locations currently average less than six overflow events per year over a 20-year modeled period. Four additional King County CSO locations will be controlled by projects currently in construction.

King County currently invests about \$250M per year in capital projects and programs within the Wastewater Treatment Division. Nearly 40 percent of this annual capital investment is dedicated to regulatory compliance projects, over 90 percent of which directly contribute to CSO control.

Basis of request: King County is facing several changed conditions upon which the CD is based that affect the County's ability to complete the projects in the CD by 2030. These changed conditions are the basis for this request to modify the CD. These changed conditions include:

Substantially higher cost estimates for planned CSO control projects: Current cost estimates to complete CSO control as described in the CD have increased substantially since the CD was approved by the Court due to national and regional market conditions and growth in the region affecting construction and property acquisition costs. Since 2012, increased control volume calculations and improvements to cost estimating practices have further increased the programmatic planning level costs to complete CSO control. For example, property costs alone for the University CSO Control Project increased from \$7-10M in 2010 to \$100M in 2018 due to property acquisition costs and increased control volume from 5.23 MG to 16 MG. In the CD, the programmatic cost to implement nine CSO Control Projects at 14 CSO locations was estimated at \$711M (\$849M if escalated to 2017 dollars). Four of these projects are either in design, construction, or completed, yet the programmatic cost to complete future CSO control projects at six outfalls is now estimated at \$1.9B or significantly more, depending on alternative selection. As further described below, these cost estimates will only continue to escalate due to climate change, the difficulty of finding locations for facilities in a dense urban area and the associated needs for more pumping and conveyance, and other system-wide changes that were not evident at the time that the CSO CD was approved by the Court.

Anticipated future increases in regulatory requirements for nutrient discharges to Puget Sound: Ecology has initiated a process for implementing nutrient reduction strategies to improve Puget Sound health. Ecology recently stated its intention to require about 70 wastewater treatment plants discharging to Puget Sound to develop plans during the 2021-2026 time period for reducing nutrient discharges, with potentially large reductions in effluent nutrient levels in future permit cycles. For King County, achieving the still-to-be-defined nutrient reduction targets could potentially cost several billion dollars and reduce capacity throughout the system. Ecology's interest in reducing nutrient loading to Puget Sound was not articulated when the CD was approved by the Court.

Increasing need to invest in aging assets: King County owns and operates the regional wastewater conveyance and treatment system for the greater metropolitan area. The critical infrastructure for this system were built in the 1960s, including many of the major conveyance lines and treatment plants, while some conveyance lines were constructed much earlier during Seattle's development. As highlighted by our response to the West Point flooding event in February 2017, King County must replace assets and add redundancy to ensure proper system functions to protect water quality. The urgency for action and cost estimates for this investment have substantially increased since the CD was approved by the Court.

Rate affordability and challenges to meet all obligations: King County is interested in defining a path forward that allows for prioritized investments over time that will increase system reliability, capacity, and treatment levels, improve receiving water quality and public health, and maintain affordable rates. Sewage and water utility rates paid by King County residents are already among the highest in the country. King County's current rate levels reflect ongoing and longstanding willingness to protect water quality and public health through investments in the regional wastewater system. Unfortunately, King County residents' combined sewage and water rates currently (as of 2017) represent about 18 percent of income for families at the 20th percentile income level, rated as the third least affordable rates among 25 large cities in the United States¹. With multiple large future investments in the system anticipated, King County would be forced to further raise rates to construct all anticipated infrastructure, further affecting those least able to pay.

Coordination with City of Seattle: Part of King County's commitment to clean water is its ongoing coordination with the City of Seattle in planning, design and operation of our interconnected systems. King County and the City of Seattle have established a robust approach for coordinating activities to minimize the impacts of each agency's actions on the other and to optimize and collaborate on existing and new projects. With both agencies undertaking system level planning efforts, we want to allow time for these planning processes to occur and allow for the collaboration needed to define the right set of projects, sequences, and timing to ensure both agencies' long-term CSO compliance.

Anticipated impacts from Climate Change: Recent King County modeling and other regional modeling have demonstrated that the historic weather record used to develop the CSO Control Projects in the CD is not representative of projected future conditions. King County anticipates that the Design Criteria, the Control Measures and, therefore, the remaining CSO Control Projects themselves, may need to be revised to achieve "controlled" status due to increased rainfall and changes in precipitation patterns. Anticipated conditions due to climate change also pose a threat to the maintained control status of currently controlled outfalls. These revisions are expected to result in increased cost.

Preparation of a New Long-Term Strategic Plan: With competing demands and limited funding, King County has initiated a process to update its wastewater comprehensive plan. This plan, the

¹ Teodoro, M.P., 2018. Measuring household affordability for water and sewer utilities. Journal – AWWA, Volume 110, Issue 1.

https://awwa.onlinelibrary.wiley.com/doi/full/10.5942/jawwa.2018.110.0002?_ga=2.146086900.1950952993.1569511695-307366195.1569511695

Clean Water Plan, will amend and update the Regional Wastewater Services Plan adopted in 1999. The purpose of this system-wide comprehensive planning effort is to thoroughly assess all the demands on the regional wastewater utility, including CSOs, and set direction through 2060. King County anticipates having an approved Clean Water Plan by the end of 2022. The Clean Water Plan, in conjunction with ongoing CSO planning, will develop water quality investment strategies, including CSO control with an implementation schedule for completion.

Request to delay Interim Milestones:

To allow for the Clean Water Plan to proceed and inform the water quality projects and implementation schedule needed for CSO compliance, King County requests an extension for two milestones associated with the Chelan Avenue CSO. The current milestones for Chelan Avenue CSO are completion of bidding by December 31, 2020, and the completion of construction by December 2023. All other milestones in the CD are either on-track for completion or will be completed after the CD modifications are finalized.

Due to increased costs and the relationship with other CSO projects in the Lower Duwamish area, King County is reviewing alternatives for controlling the CSOs in the Lower Duwamish area. As described in the Chelan Facility Plan submitted to Ecology in 2018, a more cost effective CSO Control Measure with increased water quality benefits, as compared to the storage tank required in the CD, may be to send flows from the Chelan CSO to a wet weather treatment station anticipated to be constructed to control the Hanford, Lander, Kingdome, and King (HLKK) CSOs. King County has worked closely with the City of Seattle on the Chelan project to address the City's Delridge basin 99 needs.

Extending the completion of bidding and construction milestones for the Chelan Ave CSO storage tank schedule to align with HLKK's milestones, as shown below, will allow for the planning process to be completed and for King County to determine the investments with the highest water quality benefit within an affordable rate. It is anticipated that an implementation schedule would be developed as part of the negotiations for the CD modification.

Chelan Avenue CSO Control Project Milestones

Consent Decree Milestone	Chelan Avenue CSO Storage Facility	HLKK (Treatment)
<i>King County</i>		
Submit Facility Plan Complete	December 31, 2018	December 31, 2024
Completion of bidding	December 31, 2020	December 31, 2026
Complete construction	December 31, 2023	December 31, 2030

King County's Interests:

King County is requesting to work with the USEPA and Ecology on developing a modification to the remaining CSO Control Projects with CSO Control Measures and milestone dates that can yield

equivalent or higher water quality benefits than in the current CD within an affordable rate informed by the County's Clean Water Plan.

Specifically, King County wants to discuss:

1. A revised set of projects and programs to achieve an equivalent or greater environmental benefit than the remaining list of projects in the CD.
2. Development of a compliance plan that uses adaptive management approaches to allow investments in the most cost-effective water quality improvement actions in any given time period as population increases, climate changes, infrastructure ages, and regulatory requirements evolve.
3. A new schedule and end date beyond 2030 to align with the outcomes from the Clean Water Plan, and provide certainty to King County, Ecology, and the USEPA regarding future investments in clean water. The alignment of the Clean Water Plan and the CD will provide a comprehensive approach for clean water that best fits the parties' interests.
4. Consideration of scheduled investments in water quality improvement at an annual rate that maintains rate affordability. King County believes that defining a clean water investment schedule that maintains affordability is key to ensuring long-term sustainability of our clean water investments, affordability by all ratepayers, and long-term success in ensuring water quality improvements in the region.

King County looks forward to discussing these topics with the USEPA and Ecology. I believe that all our agencies' interests align in maximizing cost-effective water quality improvements in the greater Seattle metropolitan region, and that modifying the CD represents the best approach for achieving success. If you have any questions, please contact me at 206-477-4601 or mark.isaacson@kingcounty.gov.

Sincerely,



Mark Isaacson
Division Director

cc: Christie True, Department Director, Department of Natural Resources and Parks (DNRP)
Verna Bromley, Senior Deputy Prosecuting Attorney, King County Prosecuting Attorney's Office
Lisa Taylor, Project Planning and Delivery Section Manager, Wastewater Treatment Division (WTD), DNRP
Susan Kaufman-Una, Project Resources Unit Manager, WTD, DNRP
Andrew Lee, Deputy Director, Drainage and Wastewater Line of Business, Seattle Public Utilities