

# **Ship Canal Water Quality Project Semiannual Report**

Prepared in accordance with  
Ordinance 18313, Section 2

**July 2017**



**King County**

Department of Natural Resources and Parks  
Wastewater Treatment Division

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## **Introduction**

King County Ordinance 18313, Section 2 requires the King County Executive to transmit a report to the Council semiannually as a project status update on the Ship Canal Water Quality Project.

Specifically, the Ordinance requires the report to summarize:

- Project budget status and anticipated cash flow through construction phases;
- Key upcoming activities that demonstrate progress on design and construction of county-focused elements;
- Major schedule milestones and the project status in achieving those milestones; and
- Potential uses of contingency and management reserve.

This report addresses each requirement under a separate heading that corresponds to the particular requirement.

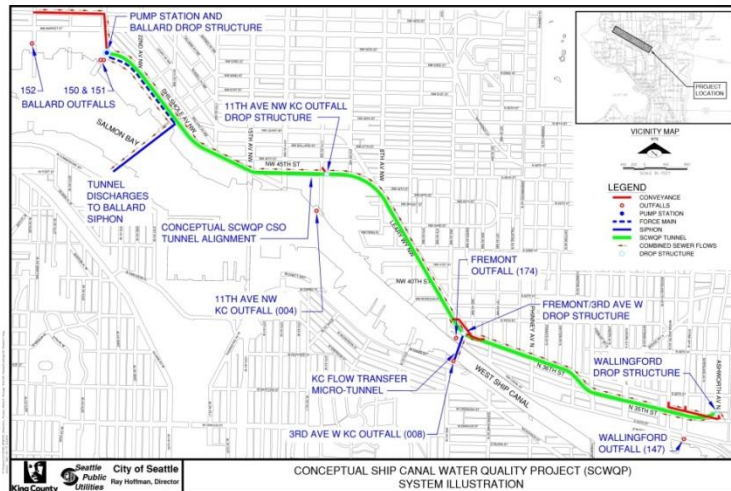
## **Executive Summary**

This second semiannual report shows that the project continues to meet or exceed the milestones required under King County's federal Consent Decree with the Washington Department of Ecology (Ecology) and U.S. Environmental Protection Agency. There have been five approved changes to the joint project budget, and all but one required an increase of the total project budget. King County's cost share for the joint project resulting from these changes has increased by \$8.7 million (6.5 percent) as of this report. There are ongoing negotiations regarding cost increases for increases in proposed tunnel sizing; complete system flow modeling has not been completed to finalize this.

## ***Background***

Ordinance 18313 authorizes King County and Seattle Public Utilities (SPU) to partner on the Ship Canal Water Quality Project, and requires semiannual project status reports. This second report covers the period January 1 through June 30, 2017.

## ***Project Summary***



This project will be designed and constructed to control combined sewer overflows (CSOs) to the Lake Washington Ship Canal, as approved by both King County's and City of Seattle's respective Consent Decrees. SPU is responsible for completion of the construction, subsequent operation and maintenance, periodic repair, replacement and permitting of the Ship Canal Project.

The Joint Project Agreement approved by Ordinance 18313 chartered a Project Review and Change

Management Committee (PRCMC) to provide project oversight and to monitor and approve formal changes of project scope, schedule, and budget, among other governance responsibilities. The PRCMC is comprised of executive and management staff from SPU and King County.

## ***Facility Ownership***

SPU will own and operate all facilities once constructed. King County retains ownership of its 3rd Ave. West outfall and 11th Ave. NW outfall, to meet compliance with the Consent Decree for its two CSOs within the system, and owns storage capacity of a minimum of 6.03 million gallons in the completed facility.

## ***Project Components***

SPU is designing and constructing a storage tunnel and associated facilities, including diversion structures for diverting influent CSO flow away from existing CSO outfalls to the tunnel; four drop structures to convey influent CSO flow into the storage tunnel; gravity sewer lines to convey flows from King County's diversion structure at 11th Ave. NW; conveyance lines to drain flows from the tunnel effluent pump station to King County's existing Ballard Siphon structure; and conveyance facilities related to the Fremont, Wallingford and Ballard Outfalls. Wallingford/Ballard work is not a King County shared cost.

### ***Cost Monitoring and Change Control***

<b>King County Budget Status (King County Capital Share only)</b> <i>(All figures in millions of dollars, escalated to year of expenditure)</i>	Total Planned Capital Cost (A)	Total County Adopted Budget** (B)	Amount Expended (C)	Remaining Budget Balance (B-C)
Values as of 6/30/2017* * actuals through April + projected	\$ 133.7	\$ 142.4	\$ 12.0	\$ 130.4

**\*\* Includes changes approved by Project Review and Change Management Committee.**

### ***Annual Cash Flow Projections***

See table: Attachment A.

### ***Major Proposed and Accepted Changes Summary***

Changes Approved by the PRCMC:

- Salmon Bay Property cost increase: + \$3.46 million (funded from existing contingency, no total project cost increase)
  - Increase based on agreement reached through alternative dispute resolution by mediation with the property owner.

The following approved changes increased the total project budget (only King County cost impacts are shown):

- Project schedule resequencing: + \$0.9 million
  - Holds on advancing to final design for portions of project awaiting confirmation of integrated system modeling. The final modeling results inform tunnel capacity and flows that can be managed and treated at West Point. This resequencing impacted future year cash flows which with escalation created the noted cost impact.
- Increased overall project inflation factor: + \$5.0 million
  - Corrected SPU inflation assumption to more appropriately reflect market conditions and better align with assumptions used by the Wastewater Treatment Division.
- Property surplus credit adjustment: + \$2.5 million
  - SPU accounting correction to reflect cost to project from surplus property obtained for construction. Because of favorable leasing terms obtained, the eventual net impact to the project should lower overall costs.
- Sales tax increase: + \$0.3 million
  - Reflects recently implemented City local sales tax increase of 0.1 percent and Regional Transit Authority (RTA) sales tax increase of 0.5 percent not included in baseline budget.

Proposed Changes: No other changes submitted to the PRCMC for review. However, SPU is moving forward with final design of an eighteen foot ten inch diameter tunnel. Current modeling data supports the need for a fifteen foot diameter tunnel. Based on the modeling data, King County is only participating in its cost share of a fifteen foot diameter tunnel. Both parties are awaiting final modeling results for the integrated system incorporating a tunnel, which are expected by November. By that time, King County will have had the opportunity to re-evaluate final tunnel size capacity decisions and cost share.

<b><i>Current Activities</i></b>
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- Proceeding with final design for tunnel storage, the tunnel effluent pump station (TEPS), and conveyance for Fremont, 3rd Ave. W, and 11th Ave. NW outfall diversions.
- Continuing with developing a joint TEPS operational strategy to coordinate effective communications and operations between agencies once the project is completed.
- Advertising for Construction Management consultant in July; evaluation and selection to follow.
- Continued 3rd and 11th Ave. shaft mechanical and electrical facility design to coordinate with conveyance designs.
- Received approval in June for the Final Facility Plan from Ecology, and the U.S. Environmental Protection Agency for 3<sup>rd</sup> Ave. W and 11<sup>th</sup> Ave. NW CSOs as required by King County's Consent Decree.
- Submitted mitigation plan for in-water work portion of the Ballard Early Works Package to U.S. Army Corps of Engineers, Washington Department of Fish and Wildlife, Muckleshoot Indian Tribe, Ecology, Seattle Department of Construction and Inspections, and U.S. Fish and Wildlife Service.
- Resequencing early construction work to coordinate with Seattle Department of Transportation's Burke-Gilman trail "missing link" project in Ballard.
- Developed public relations coordination and communications strategy for Ballard TEPS and related work.
- Continuing to finalize modeling efforts with SPU to verify appropriate tunnel sizing and operations requirements.
- Updating project schedule for impacts resulting from refined engineering and modeling analyses, and to reflect anticipated decisions on tunnel sizing.
- Continuing briefings and outreach efforts with community stakeholders including the Ballard Chamber of Commerce, Ballard District Council, Seattle Pacific University, Pacific Fisherman, Cascade Bicycle Club, and nearby property owners.

***Project Schedule***

<b><i>Key Consent Decree Milestones</i></b>	<b><i>CD Compliance Date</i></b>	<b><i>Current Project Schedule</i></b>	<b><i>Variance from CD Schedule (years)</i></b>
Draft Engineering Report (Facility Plan)	3/31/2017	1/15/2016	(1.2)
Final Engineering Report for Approval	12/31/2017	3/13/2017	(.7)
Draft Plans and Specs to Ecology for Review	3/31/2020	3/27/2018	(2.0)
Final Plans & Specs for Approval	12/31/2020	9/5/2018	(2.3)
Construction Start (Notice to Proceed)	7/1/2021	4/26/2019	(2.2)
Construction Completion	12/31/2025	12/31/2025	0
Achieve Controlled Status	12/31/2026	12/31/2026	0

***Potential Use of Contingency and Management Reserve***

- No new proposed changes submitted to the PRCMC for review.

**Ship Canal Water Quality Project Semiannual Report****Annual Cash Flow Projections and Actual Expenses for King County Share of Ship Canal Water Quality Project**

*Note: All figures are in millions of dollars (except percentages)*

<b>Total Project Cost per Joint Project Agreement</b>	<b>423.4</b>
<b>Total Current Approved Budget</b>	<b>453.8</b>
<b>Total Current Joint Shared Cost</b>	<b>406.9</b>
<b>Total Current Approved King County Share</b>	<b>142.4</b>
<b>King County % of Total Shared Cost</b>	<b>35%</b>

<b><u>King County WTD Share (escalated):</u></b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
Annual forecast/actuals	0.5	5.0	5.4	3.3	5.3	8.6	24.1	34.6	25.2	16.4	11.1	3.0	<b>142.4</b>
Cumulative forecast	0.5	5.5	10.9	14.2	19.4	28.0	52.1	86.7	111.9	128.3	139.4	142.4	<b>142.4</b>
% of King County Total share	0.3%	3.5%	3.8%	2.3%	3.7%	6.0%	16.9%	24.3%	17.7%	11.5%	7.8%	2.1%	<b>100%</b>
Cumulative % of King County Total share	0.3%	3.9%	7.7%	9.9%	13.6%	19.6%	36.6%	60.9%	78.6%	90.1%	97.9%	100.0%	<b>100%</b>