



BUSINESS OF THE CITY COUNCIL CITY OF MERCER ISLAND

AB 6793
November 4, 2025
Consent Agenda

AGENDA BILL INFORMATION

TITLE:	AB 6793: Lakeline Reach 1 Capacity Improvement Phase 1 Project	☐ Discussion Only ☒ Action Needed: ☒ Motion ☐ Ordinance ☐ Resolution
RECOMMENDED ACTION:	Reallocate \$1,839,846 in sewer capital project resources in the 2025-2026 biennial budget to address the revised timeline for the Lakeline Reach 1 Capacity Improvement Project.	

DEPARTMENT:	Public Works
STAFF:	Jason Kintner, Chief of Operations Clint Morris, Capital Division Manager Christopher Marks, Utilities Engineer
COUNCIL LIAISON:	n/a
EXHIBITS:	1. Lakeline Reach 1 Project Location Map 2. Department of Ecology Order #23515
CITY COUNCIL PRIORITY:	3. Make once-in-a-generation investments to update and modernize aging infrastructure, capital facilities, and parks.

AMOUNT OF EXPENDITURE	\$ 2,863,825
AMOUNT BUDGETED	\$ 1,023,979
REALLOCATION REQUIRED	\$ 1,839,846

EXECUTIVE SUMMARY

This agenda item provides the City Council with an overview of Lakeline Reach 1, describes the proposed Phase 1 work and presents staff's recommendations for the reallocation of budget resources to align with the project's revised implementation timeline.

- Lakeline Reach 1 consists of 13,350 feet of sewer main located 5 to 100 feet offshore along the east shoreline of Mercer Island (see Exhibit 1). No inspections, maintenance, or improvements have occurred since its original installation in 1966 due to lack of access to this section of the Lakeline.
- During recent wet weather events, sanitary sewer overflows at the upstream end of Reach 1 prompted regulatory action by the Washington State Department of Ecology (Ecology). See Exhibit 2.
- To align with Ecology's timeline and the City's General Sewer Plan, the Phase 1 Capacity Improvement Project is proposed to be moved to the 2025-2026 biennium, which requires an appropriation of \$1,839,846. This work was originally planned for the 2027-2028 biennium.
- This project is complex and will be completed in phases. Phase 1 will include data collection, condition assessments, hydraulic modeling, and preliminary project scoping.

- The analysis and preliminary project scoping work completed in Phase 1 will identify, prioritize and plan future reinvestment needs. These projects will be included in the City’s updated General Sewer Plan (currently underway and scheduled to be completed in late 2026) and the City’s Capital Improvement Program.

BACKGROUND

Mercer Island’s sewer collection system includes approximately 105 miles of gravity mains, 2,400 manholes, 17 pump stations, and one flush station. A unique and key feature of the system is the Lakeline—a series of low-pressure sewer mains located 5 to 100 feet offshore that convey wastewater flows around the perimeter of the Island. The Lakeline receives flows from residential connections and pump stations before ultimately discharging to King County’s North Metro or South Metro pump stations for off-Island treatment.

The Lakeline system and its supporting infrastructure are divided into five hydraulically distinct segments, or “reaches.” Reach 1, located along the east shoreline of Mercer Island, extends from 4266 E Mercer Way to King County’s South Pump Station at 9603 SE 72nd Street. This reach crosses more than 170 waterfront properties and includes City pump stations 25, 24, 23, and 22, and approximately 13,350 feet of 8- to 14-inch cast-iron pipe (refer to Exhibit 1 for location).

The current condition of Reach 1 pipe is unknown. Although previous General Sewer Plans identified the need for assessment, rehabilitation, and potential replacement, no formal evaluation is known to have been conducted, and to date, only Reach 3 has undergone improvements. This is largely due to the absence of access points along the Lakeline, which has prevented routine inspection, maintenance, or improvements since its original installation in 1966.

Between 2018 and 2023, five sanitary sewer overflows occurred within this area, prompting regulatory action and renewed attention to system performance. A recent Notice of Violation and Administrative Order from Ecology affirms the need to evaluate Reach 1. The order, attached as Exhibit 2, outlines several corrective actions, some already completed, others ongoing, and the remainder to be addressed through this project. Together, this violation, the limited inspection data, and recommendations from the City’s 2019 General Sewer Plan, resulted in the staff recommendation to move the Reach 1 Capacity Improvement Project from the 2027-2028 biennium to the current biennium.

ISSUE/DISCUSSION

PROJECT DESCRIPTION

The Lakeline Reach 1 Capacity Improvements Project will provide comprehensive engineering design and support services to assess and upgrade one of the City’s most critical sewer conveyance systems. This multi-year effort focuses on identifying and correcting system deficiencies within Reach 1 to improve reliability, increase flow capacity, and prevent future sanitary sewer overflows.

The following table summarizes the Ecology deadlines for this project. A detailed list of Ecology’s required corrective action items is provided in Exhibit 2.

Ecology Deadlines Specific to This Effort	
Phase 1	Future Phase
Complete comprehensive hydraulic model of sewer system December 31, 2025	Install discharge flow meters in each pump station December 31, 2028
Submit hydraulic model analysis June 30, 2026	Complete construction of identified improvements December 31, 2028
Submit engineering report and identification of improvements to prevent overflows at PS 25 June 30, 2027	Certify improvements complete per WAC 173-240-095 January 31, 2029

Given the project's scale and the need to first evaluate the condition of the Lakeline before defining specific improvements, a phased approach will be implemented. Phase 1 will focus on gathering essential data through field surveying, bulkhead assessments, geotechnical review, CCTV video inspection, ultrasonic testing, and hydraulic modeling and analysis. This phase will also initiate early project scoping, environmental review, and community outreach. Staff estimate eighteen months to complete the Phase 1 work.

Future phases, anticipated in the second half of 2027 through 2028, will build on Phase 1 findings and include design and engineering support for both small- and large-scale construction projects. Early efforts will prioritize improving access to the Lakeline and addressing critical point repairs, while long-term work may represent a once-in-a-generation investment to fully rehabilitate/replace Reach 1 and extend the service life of this sewer infrastructure. The current reallocation request covers Phase 1 work only as is needed due to the change in the project timeline. Additional phases will be programmed and funded through the City's 6-Year Capital Improvement Program.

PROJECT TEAM

A Request for Qualifications (RFQ) was advertised on May 12, 2025, and closed on June 5, 2025. Tetra Tech, the sole respondent, was determined to be qualified to lead this effort. Tetra Tech has partnered with Carollo Engineers and Psomas to provide planning and engineering services and will be supported by a group of specialized subconsultants (collectively referred to as the Consultant Team) which includes the following:

- ADS (flow monitoring)
- Applied Professional Services (utility mapping)
- Ballard Marine (in-water support)
- Blue Coast (shoreline stabilization)
- Bravo Environmental (CCTV video inspections)
- Confluence (environmental and permitting)
- Norton Corrosion (corrosion evaluation)
- ProgramX (real property support)
- PRR (public outreach)
- SFE Global (non-invasive pipeline evaluation)
- Shannon & Wilson (geotechnical)
- Tree Solutions (tree assessment and planning)
- V&A Consulting (pipeline analysis)

Tetra Tech brings relevant experience from major regional infrastructure projects, including King County's North Mercer Island Interceptor improvements and the Kenndydale Lakeline System Analysis and Sewer

Improvements project in Renton. Tetra Tech also has extensive knowledge of the City's sewer system having partnered on previous projects including the General Sewer Plan as well as emergency repairs to the Lakeline.

PROJECT BUDGET

The total estimated cost for the Phase 1 scope of work is \$2,863,825. The 2025-2026 budget included \$1,023,979 to begin this work, with project completion for Phase 1 originally anticipated in 2028. Staff are now recommending accelerating the Phase 1 project to meet the required action items outlined in Ecology's Administrative Order.

The projects identified in this first phase will complete all required action items and will be included in the City's General Sewer Plan as well as future Capital Improvement Programs. A summary of project costs is provided in the table below.

LAKELINE REACH 1 CAPACITY IMPROVEMENTS – PHASE 1 PROJECT BUDGET	
DESCRIPTION	TOTAL
Estimated Project Cost	
City	
Project Management	\$ 46,874.10
Operations Support	\$ 25,384.62
City Total	\$ 72,258.72
Consultant Team	
Project Management	\$ 197,263.72
System Mapping & Field Investigations	\$ 1,702,578.09
Hydraulic Model Development	\$ 179,316.51
Initial Condition Assessment	\$ 195,740.27
Identification of Phase 2 Projects	\$ 164,128.24
Public Outreach	\$ 115,330.39
Real Property Support	\$ 135,848.01
Environmental & Permitting Support	\$ 101,361.05
Consultant Team Subtotal	\$ 2,791,566.28
Total Estimated Project Cost	\$ 2,863,825.00
2025-2026 Budget Available for Project	
90.30.0007 – Lake Line Reach 1 Capacity Imp	\$ 1,023,979.00
Total 2025-2026 Budget Available for Project	\$ 1,023,979.00
Budget Reallocation Needed	
90.30.0005 – “Pump Station Rehabilitation”	\$ 1,041,201.00
90.30.0006 – “Wet Well Cleaning & Restoration”	\$ 500,000.00
90.30.0012 – “Sewer Easements and Right-of-Way	\$ 298,645.00
Total Budget Reallocation Needed	\$ 1,839,846.00

This accelerated scope of work requires reallocating \$1.84 million in sewer utility project resources from elsewhere in the 2025-2026 CIP. The project funding reallocation was summarized in the previous table and is described below.

The Pump Station Rehabilitation capital project (90.30.0005) is included in the 2025-2026 CIP to rehabilitate one pump station each biennium. For this biennium, Pump Station 20 is slated for replacement. Design work is approximately 90% complete and has been funded using rollover funds from the 2023-2024 biennium. Construction costs for Pump Station 20, including a 15% contingency, are estimated at \$3,763,000, leaving \$1,604,206 of the total project budget of \$5,367,206 in the 2025-2026 CIP. As a result, staff recommends \$1,041,201 be reallocated to the Lakeline Reach 1 Capacity Improvement Project.

The Wet Well Cleaning & Restoration capital project (90.30.0006) is included in the 2025–2026 CIP to clean, assess, and restore wet wells at the City’s seventeen sewer pump stations. As of July 2025, cleaning is complete, assessments are approximately 90% complete, and no previously unidentified deficiencies have been found requiring restoration under this project. As a result, \$500,000 in available funds will be reallocated to support the Lakeline Reach 1 Capacity Improvement Project.

The Sewer Easements and Right-of-Way capital project (90.30.0012) is included in the 2025–2026 CIP to fund property access improvements and legal support for sewer pump station maintenance and operations. Limited need for easement or property-related work this biennium has left these funds largely available to meet the current project’s needs. Of the \$305,534 adopted budget, staff recommend \$298,645 be reallocated to support field investigations (surveying) and real property work associated with the Lakeline Reach 1 Capacity Improvement Project.

At completion of the contract, any funds not used on this Lakeline Reach 1 Project will remain in the Sewer Fund.

NEXT STEPS

Staff recommends establishing the total 2025-2026 project budget at \$2,863,825 to fully fund the Lake line Reach 1, Phase 1 work. Upon approval, the consultant team will begin work in November 2025, with completion anticipated within approximately 18 months. Regular updates will be provided to the City Council as the project progresses.

Future phases of the Lakeline Reach 1 Capacity Improvement Project will be programmed into the City’s General Sewer Plan and the 2027-2028 CIP for Council consideration.

RECOMMENDED ACTION

Reallocate the following capital project resources in the 2025-2026 biennial budget to the Lakeline Reach 1 Capacity Improvement Project, amounting to a \$1,839,846 budget adjustment as follows:

1. \$1,041,201 from the Pump Station Rehabilitation Project (90.30.0005).
2. \$500,000 from the Wet Well Cleaning & Restoration Project (90.30.0006).
3. \$298,645 from the Sewer Easements and Right-of-Way Project (90.30.0012).