



**BUSINESS OF THE CITY COUNCIL
CITY OF MERCER ISLAND**

**AB 6605
February 4, 2025
Special Business**

AGENDA BILL INFORMATION

TITLE:	AB 6605: Water Supply Line Project Update	<input checked="" type="checkbox"/> Discussion Only <input type="checkbox"/> Action Needed: <input type="checkbox"/> Motion <input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution
RECOMMENDED ACTION:	Receive report and provide feedback.	

DEPARTMENT:	Public Works
STAFF:	Jason Kintner, Chief of Operations Elayne Grueber, Utilities Engineer Allen Hunter, Utilities Operations Manager
COUNCIL LIAISON:	n/a
EXHIBITS:	1. PRC Approval Letter 2. Overview of Water Supply Line 3. Water Supply Line Scope Area Map
CITY COUNCIL PRIORITY:	3. Make once-in-a-generation investments to update and modernize aging infrastructure, capital facilities, and parks.

AMOUNT OF EXPENDITURE	\$ n/a
AMOUNT BUDGETED	\$ n/a
APPROPRIATION REQUIRED	\$ n/a

EXECUTIVE SUMMARY

The purpose of this agenda bill is to provide an update on the Water Supply Line Project.

- On April 3, 2024, a leak from the Seattle Public Utilities (SPU) 24-inch diameter water supply line on Mercer Island was discovered. This is the water line that brings water to the City’s reservoirs. The City Manager issued [Proclamation No. 327](#), declaring a Local Emergency due to the reduction in the supply of incoming potable water to Mercer Island. The City Council ratified this Proclamation on May 7 ([AB 6466](#)).
- On May 1, 2024, the City Manager declared a second local emergency with [Proclamation No. 329](#) due to the reduction in potable water supply to Mercer Island caused by the leak. The City Council ratified this Proclamation on May 21, 2024 ([AB 6471](#)).
- The 24-inch water supply line was constructed in 1956. A portion of the line is located in the SE 40th Street public right-of-way and has required several leak repairs over the years.
- The City and Shorewood Apartments are the two wholesale customers served by SPU’s water supply line. The City is responsible for 97.2% of the costs associated with this water line; the balance is the responsibility of Shorewood Apartments.

- Given the overwhelming cost responsibility held by the City, and the importance of this water supply line, the City began exploring options to replace this segment of the SPU line with a stronger, earthquake resistant supply line in an alternative alignment.
- The City Council authorized staff to include design and construction of the new water supply line in the 2025-2030 Capital Improvement Plan ([AB 6530](#)).
- The new City water supply line will improve water system resiliency through the replacement of 3,500 feet of concrete cylinder pipe with 4,800 feet of earthquake resistant ductile iron pipe in a new alignment.
- The scope includes several water infrastructure improvements, as well as roadway and pedestrian enhancements to improve efficiency, scheduling, and reduce overall construction impacts.
- The City is utilizing an alternative delivery method for design and construction services (GC/CM) for this project, which was approved by the Washington State Project Review Committee (Exhibit 1).
- The estimated planning level cost for this replacement, together with the other related improvements, is approximately \$19 million.
- Design and permitting is anticipated to be completed this year, with construction schedule to begin in late 2025 or early 2026.

BACKGROUND

SPU is the sole provider of potable water to Mercer Island (Exhibit 2). In April 2023 ([AB6281](#)) and April 2024, the City was notified of major system failures on the SPU water supply line. Although circumstances for each event were different, both events resulted in major water emergencies impacting the community and renewing the City's focus to improve resiliency within the City's water system.

April 2024 Event

On April 3, 2024, the City learned that the SPU 24-inch water supply line to Mercer Island was leaking in the steep sloped area in the SE 40th Street public right-of-way, just north of where Mercerwood Drive meets SE 40th Street. Consequently, SPU crews significantly reduced and then shut off flow to the line, eliminating its use as the primary water supply line. Mercer Island received water through a smaller backup pipeline beginning April 4, 2024, and implemented emergency conservation actions due to the constrained water supply.

SPU and their specialty contractor, in coordination and collaboration with the City, completed repairs and testing, restoring flow through the SPU water supply line on August 1, 2024. The repaired section was slip-lined with approximately 1,300 feet of structural liner, reducing its diameter from 24-inches to 17.4-inches. This loss of carrying capacity was analyzed to determine the impact on the City's water supply and was deemed acceptable.

With the repair complete, the City Manager issued [Proclamation No. 344](#) ending the state of local emergencies related to the SPU water supply line leaks declared in [Proclamation No. 327](#) and [Proclamation No. 329](#).

ISSUE/DISCUSSION

Although the primary driver for construction includes the installation of a new water supply line, the project scope includes many different elements to improve construction costs, scheduling, and impacts.

New Water Supply Line

The project includes the construction of an earthquake-resistant 24-inch diameter water supply line along a new alignment (Exhibit 2). This pipe will replace a significant segment of the existing SPU 24-inch diameter concrete cylinder water line. The existing SPU line is not considered resilient in seismically active areas, even under conditions of minor slope movement. The new 24-inch water supply line is currently planned in the following alignment: connect to the SPU water supply line in the Boat Ramp area, bear north on East Mercer Way, west on SE 36th Street, and southwest along SE Gallagher Hill Road to SE 40th Street, continuing east on SE 40th to 92nd Avenue SE (see Exhibits 2 and 3).

Additionally, the project will involve upsizing an existing 12-inch water line at the intersection of 89th Avenue SE and SE 43rd Street to 24-inch pipe. The change in pipe diameter will improve the hydraulics of the supply line at this intersection and relocation of the SPU 67 master meter serving the City of Mercer Island.

AC Watermain Replacement

To minimize construction disruptions along SE Gallagher Hill Road and achieve cost savings through economies of scale, the replacement of an existing asbestos-cement (AC) water main within that roadway has been incorporated into this project (see Exhibit 3). In recent years, the City has placed a priority on removing AC pipe from the water system, and this section of AC pipe had been scheduled for replacement in 2025 under a previously planned project. Approximately 1,500 feet of existing 8-inch and 10-inch AC pipeline will be replaced, as well as the replacement of a large Pressure Reducing Valve (PRV) at the bottom of SE Gallagher Hill Road. Additionally, the project will extend the pipeline to the top of SE Gallagher Hill Road and establish a new connection at the intersection of SE 40th Street and SE Gallagher Hill Road.

Roadway Improvements

Roadway improvements will be constructed, following the water supply line installation, testing, and startup. The scope of these improvements include:

- **SE 36th Street (Gallagher Hill Road to East Mercer Way)** – Restore sidewalks removed for pipeline construction, upgrade all sidewalk ramps to meet current ADA standards, mill and repave the roadway with a hot mix asphalt (HMA) overlay, raise utilities to grade, and install new pavement markings.
- **Gallagher Hill Road (SE 40th Street to SE 36th Street)** – Construct new curb and sidewalk along the east side (downhill lane), provide a paved shoulder suitable for bicycle use on the west side (uphill lane), install a HMA overlay, raise utilities to grade, and install new pavement markings.
- **SE 40th Street (Gallagher Hill Road to 93rd Avenue)** – Construct new curbs and sidewalks on both sides, install bike lanes on both sides, install a HMA overlay, raise utilities to grade, and install new pavement markings. Together, these improvements will repave approximately 0.9 miles of arterial roadways.

These roadway projects were identified in the 2023 TIP for construction in 2025. In the 2024 TIP, due to the addition of the water supply line project, these projects are now anticipated to be completed in 2028 and 2029. These road projects are now part of the Water Supply Line Project and funded through the Street Fund.

Shorewood Apartment Connection

Shorewood Apartments is currently a direct customer of SPU and is served through a connection along SE 40th Street (see Exhibit 2). However, with the construction of a new water supply line, the existing SPU transmission line may be decommissioned, in which case Shorewood Apartments will require a new water

connection. Several options were evaluated for providing water service to Shorewood Apartments, with the preferred solution being the installation of two connections and master meters fed from SE 36th Street at 88th and 90th Avenues SE (see Exhibit 3). If these proposed connections proceed, Shorewood Apartments would need to become a direct customer of the City of Mercer Island. System modeling has confirmed that connecting Shorewood Apartments at these two locations would not adversely affect the City's water system or capacity.

Staff are seeking feedback from the City Council on the Shorewood Apartment connection. For reference, during each of the past two water emergencies, the City installed a temporary emergency intertie and provided water to Shorewood Apartments via the City's distribution system. This emergency intertie arrangement has been used periodically and has not negatively impacted the distribution system. Completing this permanent connection would allow the existing SPU transmission line to be fully decommissioned once construction of the new Mercer Island 24-inch water supply line has been completed.

Alternatively, Shorewood Apartments could continue to be fed directly from SPU through the existing 24-inch water supply line, but this would require that the entire 24-inch SPU water supply line remain in service. Staff do not recommend this option.

Remaining SPU Segment

With the design and construction of the new water supply line, there remains a segment of pipeline currently owned and operated by SPU. Without the transfer of ownership, water would be brought onto the Island via SPU's water supply line, pass through the City's new constructed supply pipe, and then travel back through a segment of existing SPU pipe (see Exhibit 3). Although this segment is currently owned and operated by SPU, the City is the sole beneficiary and user of this pipeline and is financially responsible for the operation, maintenance, and capital reinvestment of the pipe. Staff recommend pursuing the transfer of ownership for this segment from SPU to the City. As part of the transfer, the City's engineering team will perform due diligence in review of the infrastructure and anticipated costs for future replacement. Staff will return to the City Council with this information and anticipated impacts to the City/SPU contract.

Staff is seeking Council feedback regarding this proposed transfer of ownership of assets.

New Water Supply Project – Alternative Delivery

The City has selected to use an alternative delivery method to design and construct this project. The City presented the project to the state's Project Review Committee in December 2024, as required for utilization of alternative delivery methods in public works construction. The project received unanimous approval to use the Heavy Civil General Contractor/Construction Manager (GC/CM) project delivery. This alternative delivery was selected for this project due to:

- **Coordination with Multiple Entities:** This project will require close coordination with multiple entities including the City, Seattle Public Utilities, the Washington State Department of Transportation, and King County. Early involvement of an experienced GC/CM will provide valuable input throughout design, construction, and commissioning.
- **GC/CM Self-Performance:** Under the heavy civil GC/CM model, the contractor has the flexibility to negotiate up to 50% of the subcontracted work and self-perform up to 70% of the work. This allows the contractor to use their own resources, which can help control quality, improve efficiency, and reduce costs for the owner.

- **Early Contractor Involvement:** The GC/CM approach allows for early involvement of the contractor during the design phase. This can lead to better project planning, cost estimating, value engineering, and constructability reviews, all of which are crucial for the success of complex heavy civil projects.
- **Flexibility and Collaboration:** The GC/CM model promotes better communication and collaboration between the owner, agencies, contractor, and design team. This integrated approach can help address issues early and adapt to changes more effectively.
- **Accelerated Schedule:** A heavy civil GC/CM project will enable Mercer Island to accelerate the project, work across multiple permitting agencies, and complete the project sooner.
- **Risk Management:** Heavy civil projects often come with significant risks due to their scale and complexity. The heavy civil GC/CM model helps in managing these risks by involving the contractor early in the project, allowing for better risk assessment and mitigation strategies.
- **Cost Transparency:** GC/CM negotiated scopes can fall under their cost reimbursable contract so costs will be open and known early and throughout construction.

The City has completed the procurement for engineering services and is working on finalizing the contract. Concurrently, the City has released the Request for Qualifications for the Heavy Civil GC/CM and anticipates concluding this procurement over the next couple of months. Once selected, the GC/CM will be integrated into the project design phases to assist in project development, coordination, and strategies to improve the project.

Design and permitting is anticipated to be completed this year. Construction is tentatively scheduled to begin in late 2025 or early 2026, with the new supply pipe being brought into service by the summer of 2027.

NEXT STEPS

Staff anticipate that there will be several Utility Board and City Council engagement points throughout 2025 and 2026 (likely quarterly) on the design and construction schedule of the Water Supply Line Project. Once the design and construction teams are finalized, staff will return to Council with projected milestones and additional planned engagement points.

RECOMMENDED ACTION

Receive report and provide feedback.