



CITY OF MERCER ISLAND UTILITY BOARD VIDEO MEETING

Tuesday, September 14, 2021, at 5:00 PM

BOARD MEMBERS:

Craig Degginger, Stephen Majewski
George Marshall, Stephen Milton, Tim O'Connell,
William Pokorny, and Brian Thomas

LOCATION & CONTACT

Mercer Island City Hall – Zoom Meeting
9611 SE 36th Street | Mercer Island, WA 98040
Phone: 206.275.7706 | www.mercerisland.gov

In compliance with the Americans with Disabilities Act, those requiring accommodation for meetings should notify the Staff Liaison at least 24 hours prior to the meeting at 206.275.7706.

Virtual Meeting Notice

The virtual meeting will be broadcast live on Zoom and recorded and saved on the City Council's [YouTube Channel](#)

Registering to Speak: Individuals wishing to speak live during Appearances will need to register their request with the City Clerk at **206.275.7793** or email the [City Clerk](#) and leave a message before 4 PM on the day of the Utility Board meeting. Each speaker will be allowed three (3) minutes to speak.

Join by Telephone at 5:00 PM: To listen to the meeting via telephone, please call **253.215.8782** and enter Webinar ID **825 9151 1028** and Password **600314** when prompted.

Join by Internet at 5:00 PM: To watch the meeting over the internet via your computer, follow these steps:

- 1) Click [this link](#)
- 2) If the Zoom app is not installed on your computer, you will be prompted to download it.
- 3) If prompted for Webinar ID, enter **825 9151 1028**; Enter Password **600314**

CALL TO ORDER & ROLL CALL, 5:00 PM

WELCOME & INTRODUCTIONS

PUBLIC APPEARANCES

REGULAR BUSINESS

1. Election of Board Chair and Vice Chair
2. Approval of Minutes for the following meetings:
 - A. April 13, 2021
 - B. May 11, 2021
3. Seattle Public Utilities Infrastructure Update
Recommended Action: Receive presentation (to be provided).
4. Mercer Island Capital Project Updates
Recommended Action: Receive presentation (to be provided).
5. Review Utility Board 2021 Work Plan
Recommended Action: Receive updated Work Plan and provide input.

OTHER BUSINESS

ADJOURNMENT



UTILITY BOARD MINUTES REGULAR VIDEO MEETING APRIL 13, 2021

CALL TO ORDER & ROLL CALL

Vice Chair Tom DeBoer called the meeting to order at 5:01 pm from a remote location.

Board Members Stephen Majewski, George Marshall, and Brian Thomas participated remotely using a video teleconferencing platform by Zoom.

Council Liaison Lisa Anderl joined the meeting at 5:27 PM.

Chair Tim O'Connell and Board Members Stephen Milton and William Pokorny requested excused absences.

Chief of Operations/Public Works Director Jason Kintner and several Public Works staff members participated remotely.

PUBLIC APPEARANCES

There were no public appearances.

REGULAR BUSINESS

Approve the minutes of the December 8, 2020, Special Video Meeting and February 9, 2021 Regular Video Meeting.

It was moved by Marshall; seconded by Majewski to:

Approve the minutes as presented.

Passed 4-0

FOR: 4 (DeBoer, Majewski, Marshall, and Thomas)

Sustainability Work Plan Update

Ross Freeman, Sustainability Analyst, provided a brief history of sustainability on Mercer Island that summarized the following:

- 2006 - Comp Plan language added regarding conservation/sustainability
- 2007 - Council Resolution 1389 (Reduce GHG's 80% by 2050)
- 2011 - City joins King County-Cities Climate Collaboration (K4C)
- 2012 - Sustainability Task Force convened
- 2013 - City launches first Sustainability position (0.5 FTE)
- 2019 - Additional Comp Plan language on Climate Action/GHG's
- 2021 - Budget: 100% sustainability position approved within Public Works

Freeman also reviewed the Sustainability Program Functions, which are integrated across all City operations and include:

- Efficiency
- Waste & Toxics
- Energy
- GHG Emissions
- Transportation
- CIP & Operations
- Outreach & Education

Freeman also outlined sustainability across the various utilities: Stormwater, Sewer, SPU Potable Water,

Recycling, Compost, Garbage, and PSE Electricity and Gas.

National Pollutant Discharge Elimination Systems (NPDES) Annual Report

Brian Hartvigson, Right of Way and Stormwater Manager, explained what the National Pollutant Discharge Elimination System is and that the pollution comes from residential, commercial, and construction. Hartvigson also outlined the eight stormwater permit components:

- Stormwater Planning
- Public Education and Outreach
- Public Involvement and Participation
- MS4 Mapping and Documentation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment, and Construction Sites
- Municipal Operations and Maintenance
- Source Control Program for Existing Development

Hartvigson also explained that the permitting process requires an Annual Report and a Stormwater Management Program Plan Update. Future projects included:

- Watershed Inventory (2022) Stormwater Management Action Plan (2023)
- Behavior Change Campaign (2021-2024)
- Source Control Program City (2023)
- Update facility Stormwater Pollution Prevention Plans (2022)

Chris Kelley, Stormwater Lead, explained the operations and maintenance perspective which addressed the following:

- Repair & Replacement
- Vactor, Jet, and CCTV
- Vegetation Control
- Street Cleaning & Sweeping
- Storm Event Response
- Steep Slope Stabilization & Erosion Control
- Illicit Discharge Detection & Elimination

Fred Gu, Capital Project Manager, outlined related Capital Improvement Projects and explained why they are not the typical Public Works projects, noting following reasons:

- Watercourses are protected critical areas hence the use of natural materials (stream boulders and logs).
- Invasive removal and replanting native plants within project limits.
- Difficult access, long permitting time
- Fewer experienced contractors

Ruji Ding, Senior Development Engineer, explained the mitigating impacts from private development which addressed how the NPDES permit establishes requirements to mitigate stormwater from private development and how new impervious surfaces create stormwater runoff and require mitigation.

Staff also explained that the City website provides tip sheets, handouts, and requirements. The website also includes customizable maps for utilities, topography, aerial images, and more.

OTHER BUSINESS

Public Works Department Update

Public Works Director Kintner briefly outlined department and staffing updates as the city continues to through a rehiring phase. He also reported that the May 11 meeting would include a draft risk and resiliency plan.

Board Member Reports

There were no board member reports.

ADJOURNMENT

There being no additional business, the meeting adjourned at 6:36 pm.

Attest:

Tom DeBoer, Vice Chair

Deborah A. Estrada, City Clerk

DRAFT



UTILITY BOARD MINUTES REGULAR VIDEO MEETING MAY 11, 2021

CALL TO ORDER & ROLL CALL

Chair Tim O'Connell called the meeting to order at 5:03 pm from a remote location.

Board Members Stephen Majewski, Steve Milton, William Pokorny, and Tom DeBoer (5:37 PM) participated remotely using a video teleconferencing platform by Zoom. Council Liaison Lisa Anderl was also present.

Board Members George Marshall and Brian Thomas requested excused absences.

Chief of Operations/Public Works Director Jason Kintner and several Public Works staff members participated remotely.

PUBLIC APPEARANCES

There were no public appearances.

REGULAR BUSINESS

Risk and Resilience Assessment (RRA) & Emergency Response Plan (ERP) Project Updates

Jason Kintner, Chief of Operations/Public Works Director, explained that the 2018 America's Water Infrastructure Act (AWIA) requires all utilities in the United States serving over 3,300 customers to complete a comprehensive evaluation of their water systems to better manage risks and increase resilience. He went on to explain that the assessment requires evaluation of "all hazards" including malevolent acts, natural hazards, cyber security, and more. To comply, the City hired Carollo Engineers in November 2020 to perform a Risk and Resilience Assessment (RRA). To date, Carollo and City staff had completed data collections, site visits, and two workshops. Risk analysis of the City's water system assets were concluded at the end of the second workshop. Currently, Carollo is finalizing a Resiliency study with focus on the operation and financial resilience over the identified risks. Prior to the final conclusion of the RRA, the team will begin working on ERP updates with information developed from the RRA.

Kintner went on to explain that the AWIA requires completion of the Risk & Resiliency Assessment by June 30, 2021 and the Emergency Response Plan update by December 31, 2021. The RRA will identify capital projects to address identified risks. Staff will include these projects in future CIP budget proposals starting in 2023-2024.

Review Utility Board 2021 Work Plan

Kintner reviewed updates to the 2021 Work Plan, which included the following:

- SPU Infrastructure Update and Booster CL2 Project Update (June)
- Public Works Facilities Tour and 2021 CIP Updates (July)

He reminded board members that there will not an August meeting.

OTHER BUSINESS

Public Works Department Update

Kintner reported that the City was continuing to recruit for open positions in the department, noting that there is considerable competition in the area.

Board Member Reports

Board member Milton noted that the May meeting was both his and Chair O'Connell's last meeting due to term limitations. Both members expressed their gratitude and support for the board.

ADJOURNMENT

There being no additional business, the meeting adjourned at 5:57 pm.

Attest:

Tim O'Connell, Chair

Deborah A. Estrada, City Clerk

DRAFT

Mercer Island Pipeline in SE 40th ST

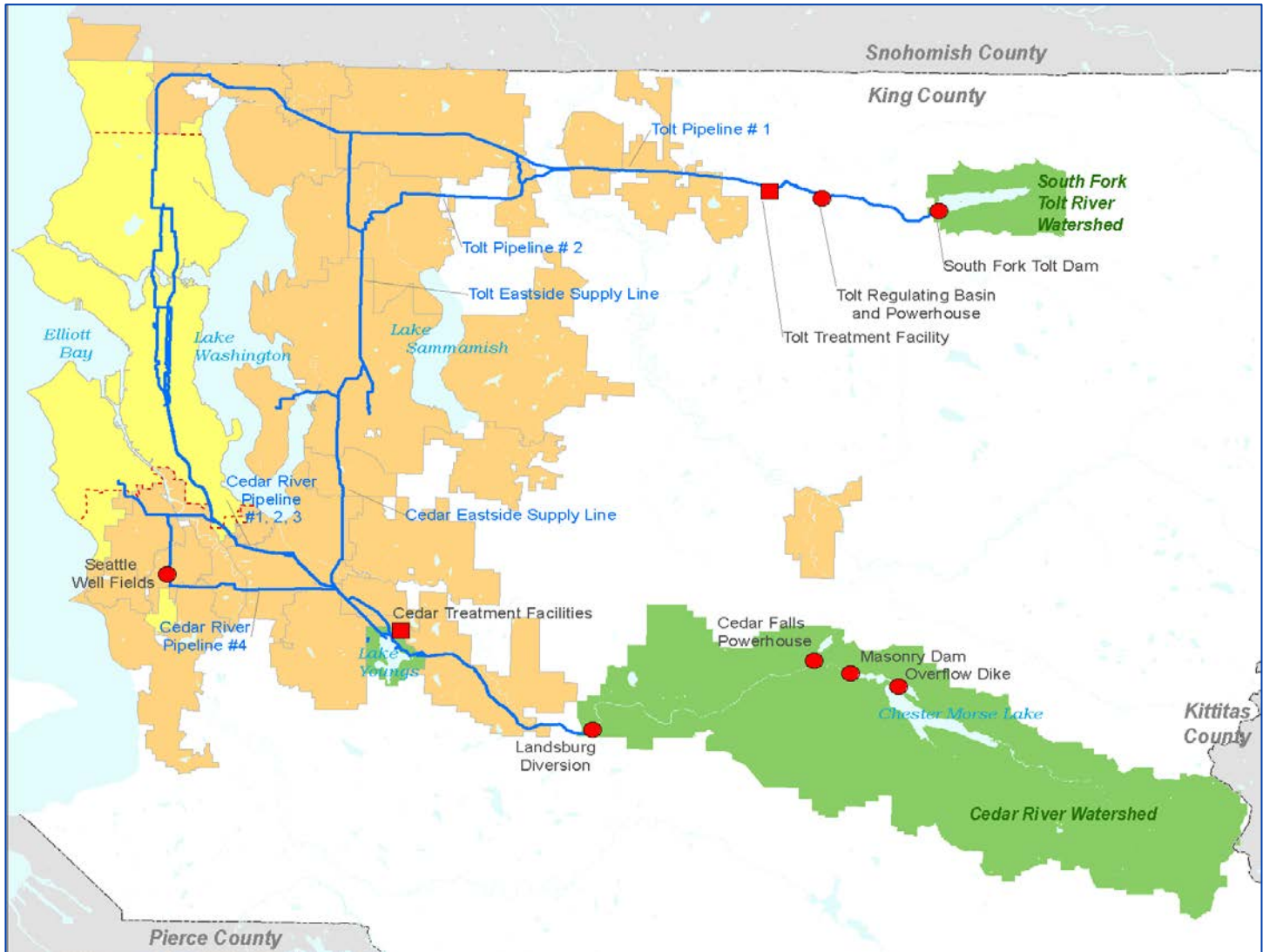
Seattle Public Utilities Issues & Options Presentation

City of Mercer Island Utility Board Meeting
September 14, 2021



Seattle Regional System

Item 3.



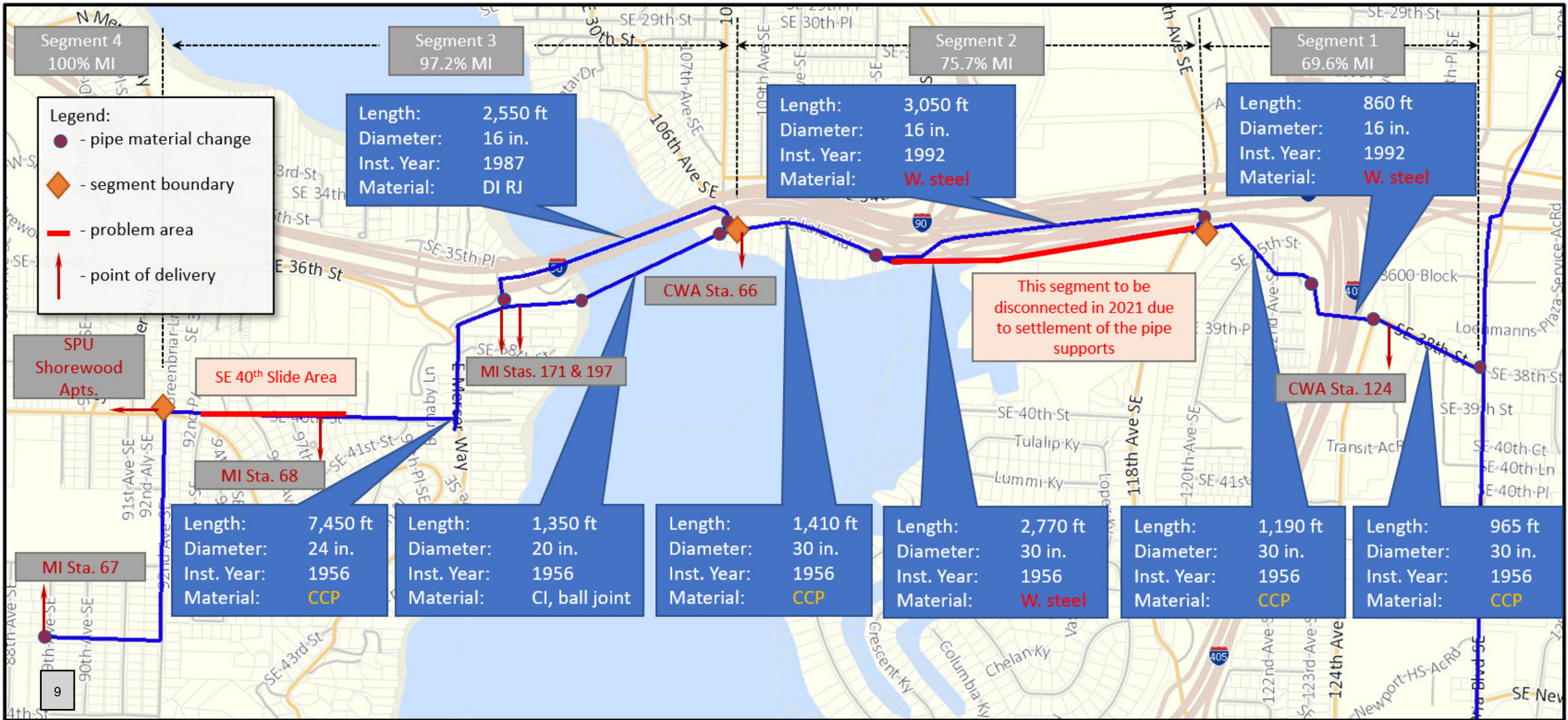
Seattle Retail Service Area

Wholesale Customers

Watersheds



Mercer Island Pipelines Subregional System



Cost Allocations by Segment

Mercer Island Cost Allocation percentages:

- Segment 1 – 69.6%
- Segment 2 – 75.7%
- Segment 3 – 97.3%
- Segment 4 – 100%

The above are averages of the last 5 years of actuals



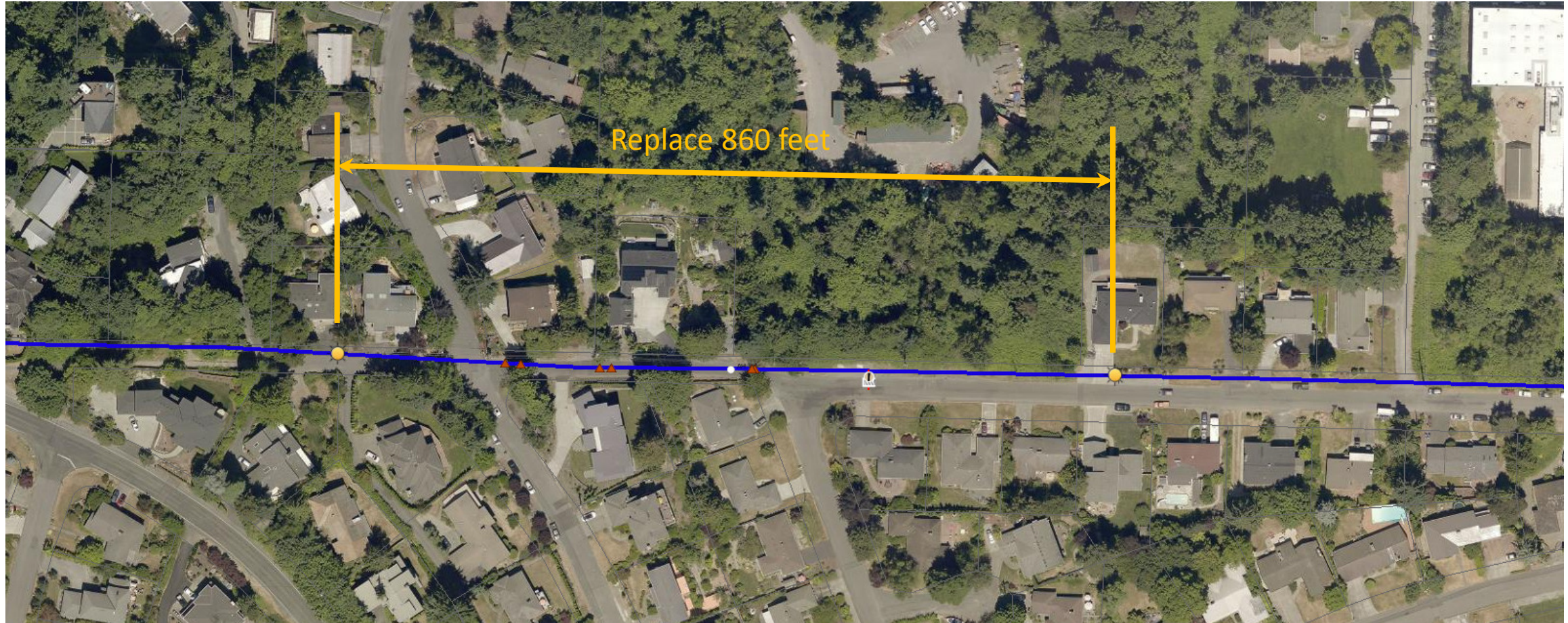
Cost Recovery Methodology

- **Costs Allocated based on peak month deliveries**
- Each segment has its own and its own subregional rate, where revenues and costs are tracked and periodically reconciled
- **Segment 1** - annual payment by CWA for the Segment 1 costs allocated to Sta. 124
- **Segment 2** - annual payment by CWA for the Segment 1 and 2 costs allocated to Sta. 66
- **Segment 3** - rate of \$ X per ccf applied to MI use at Stas. 171 and 197, and to Seattle deliveries to Shorewood Apartments. Revenue from this rate covers Segment 1, 2, and 3 costs allocated to these stations.
- **Segment 4** - rate of \$ Y per ccf applied to MI use at Sta. 67. Revenue from this rate covers Segment 1, 2, and 3 costs allocated to Sta. 67, plus all Segment 4 costs.



Area of Instability

Item 3.



Replacement Options under Consideration

- In-kind replacement, i.e., dig up and replace at same location
- Replacement pipe diameter – same as current (24”)
- Replacement pipe material:
 - 24-inch ID Earthquake Resistant Ductile Iron Pipe (ERDIP)
 - 24-inch OD High Density Polyethylene Pipe (HDPE Pipe)



Total Project Cost Estimated Range

Expected Cost Range	
Pipe Material	
24" ID ERDIP	24" OD HDPE
\$2.8 m. - \$4.5 m.	\$1.8 m. - \$2.9 m.



Subregional Rate Impacts

Project Cost, million \$	Total from MI Subregional rate, \$/year	Rate per ccf, assuming 1 mil. ccf to MI per year
1.0	\$71,333	\$0.07
1.5	\$107,000	\$0.11
2.0	\$142,667	\$0.14
2.5	\$178,333	\$0.18
3.0	\$214,000	\$0.21
3.5	\$249,667	\$0.25
4.0	\$285,333	\$0.29
4.5	\$321,000	\$0.32
5.0	\$356,667	\$0.36

- Further detailed engineering is needed to develop a more accurate estimate
- Potential rate impacts are as shown in the table on the left

Discussion





Mercer Island Capital Project Updates

Utility Board
September 14, 2021

Meter replacement project (AMI)



Replace water meters with new meters that communicate with City in real time. Project will improve billing accuracy, manage water loss, reduce sources of lead, and create standards for replacing water meters.

Project Status:

- Propagation study identified seven locations to install wireless data collectors on poles. Currently working with PSE to replace existing power poles and install equipment.
- Vendor contract under review with the city.
- Construction tentatively scheduled to start November/December 2021
- FYI – City Capital watermain replacement projects have included new meter technology/implementation.



SCADA Replacement Project - Water

Replace existing programmable logic controllers (PLC) panel at five water sites.

Project Status:

- Currently in construction
- Completion date has been delayed from fall 2021 to spring 2022 (tentative), due to supply shortages



SCADA Replacement Project - Sewer

Develop plans and specifications to replace SCADA system components (PLC units) at 17 pump stations and at the Public Works building.



Project Status:

- Currently, design is being prepared for Pump Station 16 (to be used as template)
- Planning to advertise for construction bids in late Q4 2021 or Q1 2022



Reservoir Pump Replacement Project

Develop plans and specifications to replace the five submersible pump and motor assemblies at the reservoir booster pump station

Project Status:

- Currently in design, consultant is performing assessment of current operations
- Design is scheduled to be completed in early 2022
- Construction expected to start in 2022
 - *Project will require Council appropriation*



Booster Chlorination Project

Construct booster disinfection system to reduce the risk of future water system contamination.

Project Status:

- Construction contract has been awarded
- Staff is currently reviewing material submittals and awaiting material procurement
- Supply chain issues are creating delays in construction schedule
- Construction is expected to begin near the end of this year



2021 Water system improvements



Install new water mains on 81st Ave, SE 24th St, and 82nd Ave near MICEC

Project Status:

- Construction began in May
- Project substantially completed in late August
- Only a short project punchlist remains before full completion



Basin 42 watercourse stabilization project

Stabilize 1200 linear feet of watercourse in 6500 block of EMW, using logs and streambed cobble to reduce sediment transport.

Project Status:

- Project is currently under construction
- In-water work will be completed by end of September (per permitting regulations)
- Contractor will re-plant site in late fall



Stormwater Conveyance System Assessments

Analysis to confirm adequate capacity of stormwater conveyance system.

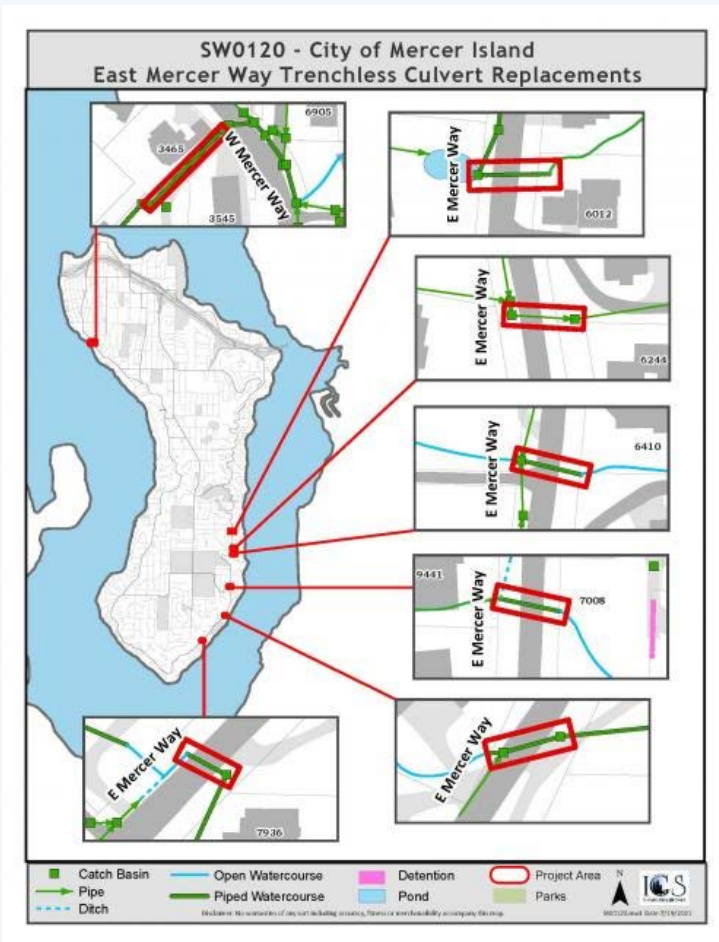
Area of focus: Sub basin 32 (includes south end shopping center), one of the largest drainage basins on the island

Project status:

- Consultant hired
- Propose improvements as needed, which will inform next Capital budget cycle (2023-2024)



EMW Trenchless Culvert Replacements



Project Status:

- Replacing culverts with defects (separated joints, cracks, root intrusion, etc..) that were identified using CCTV inspections
- Design underway for seven culverts using trenchless methods such as slip-lining or pipe bursting
- Pipe failure at these locations would pose structural risk to main arterial roadway
- Consultant hired for design; permitting expected in 2021
- Construction planned for 2022



Additional Notes & Tidbits

- Staffing changes
- Timeline challenges – supply chain delays
- October 5th City Council meeting
 - ARPA discussion regarding potential Utility Projects
- Questions?





Utility Board

2021 Work Plan

2nd Tuesday

Meeting Date	Agenda Item
January 12	Recess
February 9	Code of Ethics Discussion
	Adopt 2021 UB Work Plan
	Water Meter Replacement Contract & Project Update
March 16	Joint Utility Board & City Council Meeting
	Risk & Resiliency, Meter Replacement and SCADA Project Updates
April 13	NPDES Annual Report
	Sustainability Work Plan Update & PW Projects
May 11	Risk & Resiliency & ERP Report
June 8	Board Elections
	SPU Infrastructure Update
	Booster CL2 Project Update & Authorization
July 13	PW Facilities Tour
	2021 CIP Updates
August 10	Recess
September 14	Board Elections
	SPU Infrastructure Update
	Mercer Island 2021 Capital Updates
October 12	Stormwater & EMS Rate Discussion/Recommendation
	Sewer & Water Rate Discussion/Recommendation
November 9	Recology Solid Waste Annual Report
December 14	Recess
To Be Scheduled:	COVID/EOC Lessons Learned
	KC Metro Rate Updates