

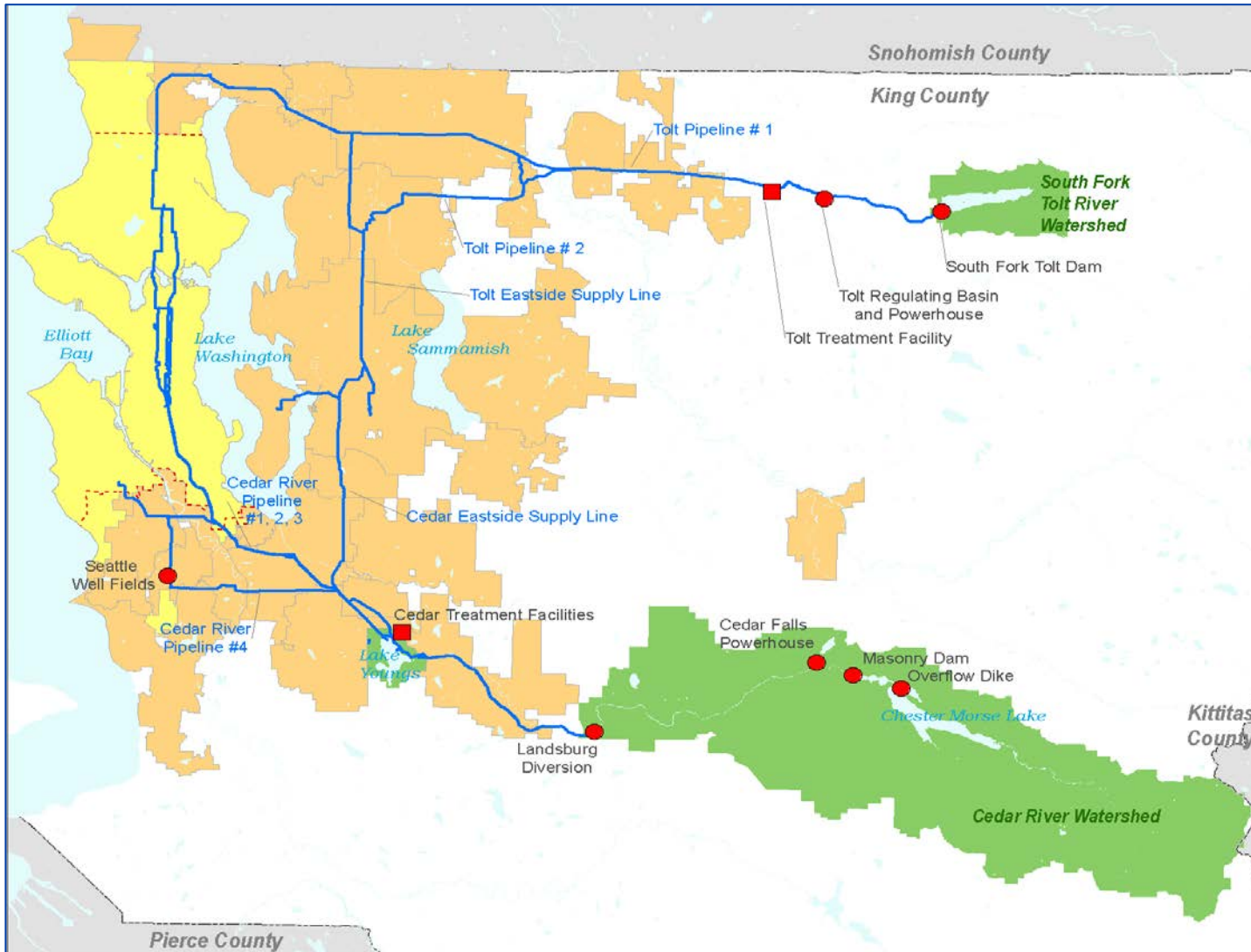
# Mercer Island Pipeline in SE 40<sup>th</sup> ST

## Seattle Public Utilities Issues & Options Presentation

City of Mercer Island Utility Board Meeting  
September 14, 2021



# Seattle Regional System

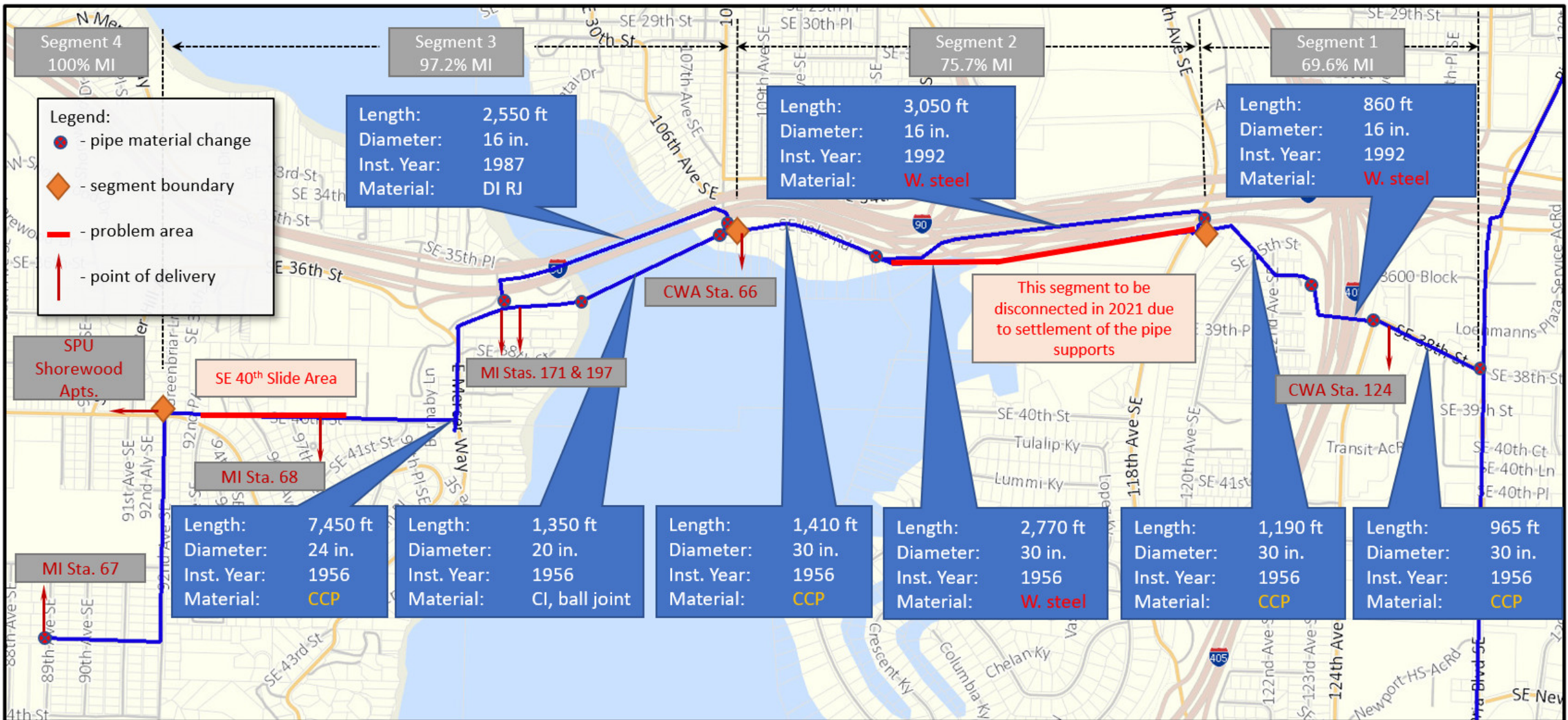


Seattle Retail  
Service Area

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





# 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

