



Protecting Seattle's Waterways

Recommended Alternative for the **Plan to Protect Seattle's Waterways**

Seattle Public Utilities and Neighborhoods Committee

April 28, 2015



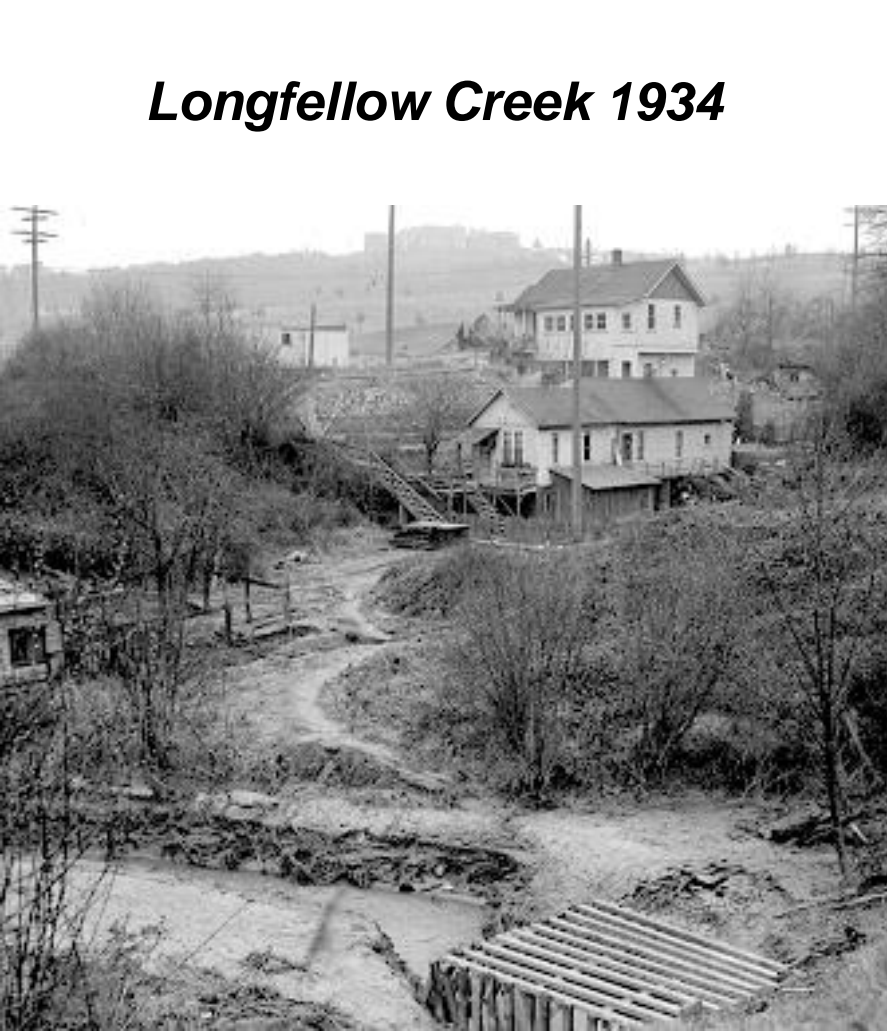
Background

- Started process in 2008
- Several briefings on projects in recent years
- Council accepted Consent Decree in September 2013
- Recent ordinances on property acquisitions

Today: SPUN Committee's approval of recommended alternative for compliance with the Consent Decree requirement to submit a plan to control remaining combined sewer overflows(CSO) May 2015

Then: Combined drainage and sewer system first constructed in 1890s, discharged directly to waterways

Longfellow Creek 1934







***Open sewer,
public health hazard***

Then: No Swimming in Lake Washington

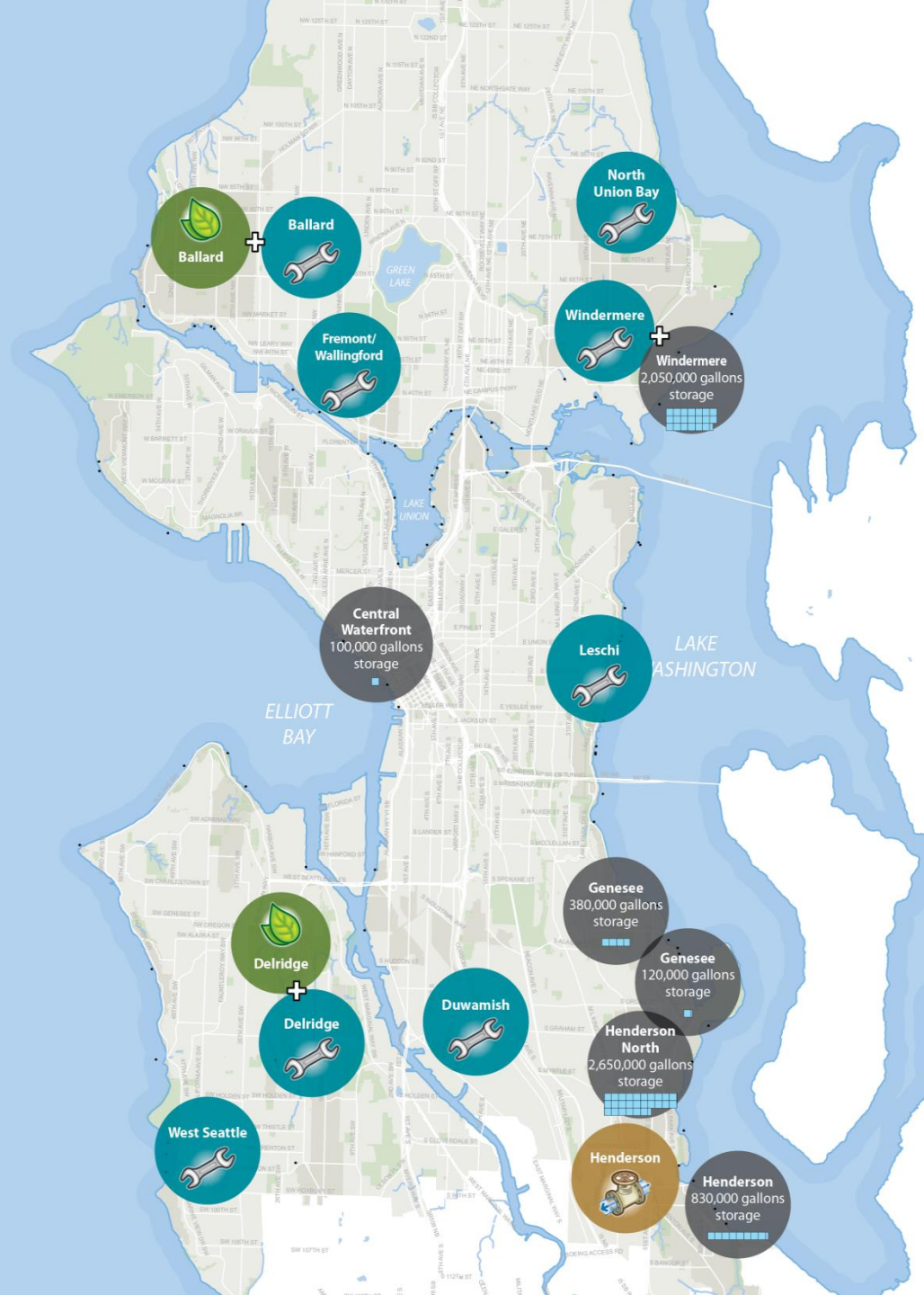


Wastewater treatment facilities were developed in the 1940s-60s.

SPU has invested \$130M in Combined Sewer Overflow (CSO) reduction since 2010

-  2 Green Infrastructure projects
-  8 Sewer System Improvements
-  6 CSO Storage projects
-  1 Flow Transfer project

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2013: Consent Decree to control remaining CSOs by 2025

- Consent Decree allows SPU to propose an integrated approach to CSO and stormwater control
- SPU evaluated two options for Consent Decree compliance
 - CSO control-only by 2025
 - Integrated Plan – CSO control and stormwater treatment by 2030
- Both alternatives deemed “approvable” by regulators
- SPU recommends the Integrated Plan alternative

CSO-Only Alternative

OR

Recommended Alternative (Integrated Plan)

**CSO
Projects**

Manage 50 million
gallons of sewage
and polluted runoff
per year by 2025

Cost:
\$500
Million

**CSO
Projects**

Manage 50
million gallons of
sewage and
polluted runoff
per year by 2030

+





**Stormwater
Projects**

Manage 100
million gallons
of polluted
runoff per year
by 2025




Cost:
\$600
Million

What is the Recommended Alternative?

CSO Projects

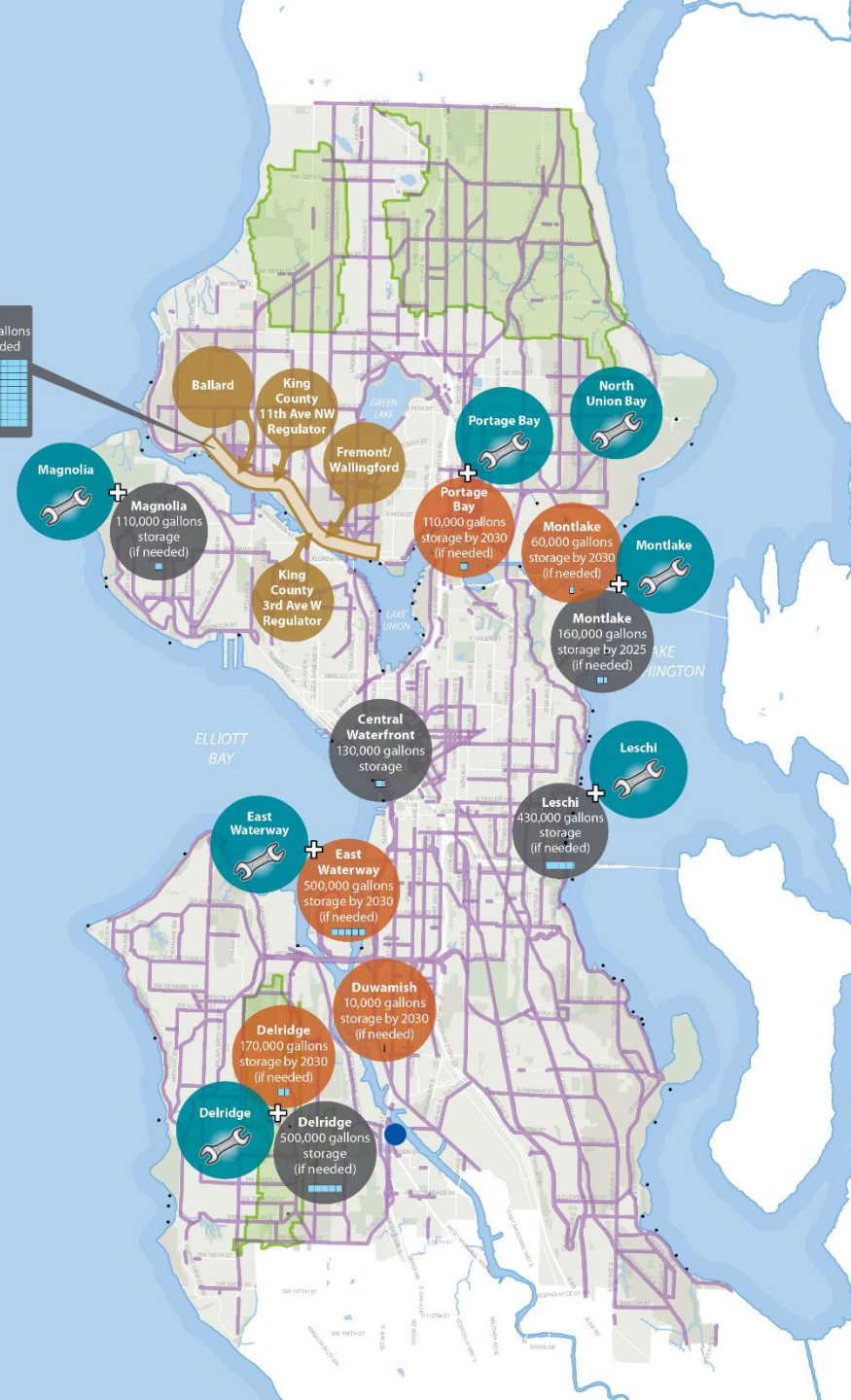
-  Sewer system improvements by 2020
-  West Ship Canal Tunnel project with King County by 2025
-  5 storage projects by 2025
-  5 storage projects by 2030

Stormwater Projects

-  Natural Drainage Partnering
-  Street Sweeping
-  South Park Water Quality Treatment

PUGET SOUND

Tunnel
15.2 million gallons storage needed



Integrated Plan Stormwater Projects

**Enhanced
Street
Sweeping**



**South Park
Water Quality
Facility**

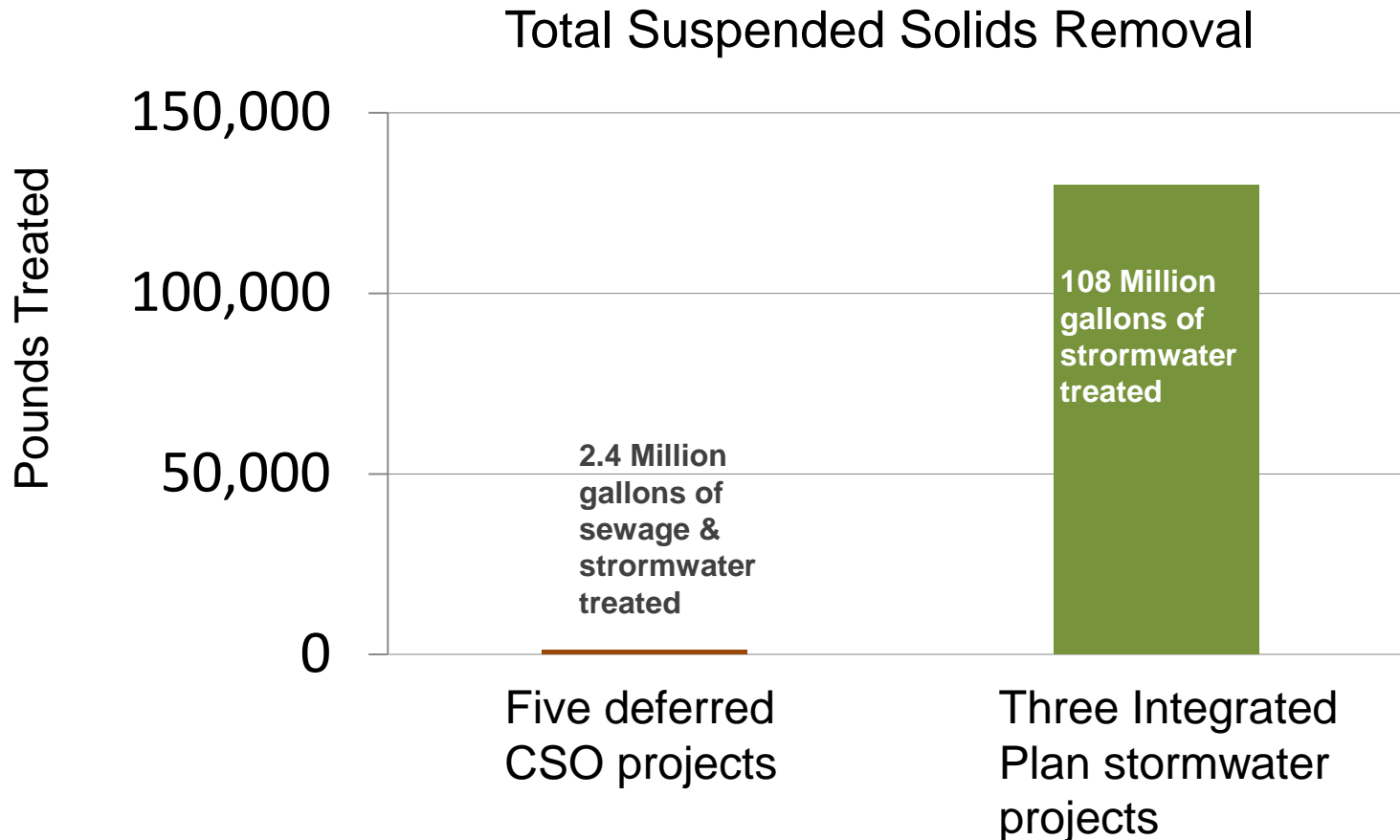


**Natural Drainage Systems Partnering
Piper's, Thornton and Longfellow Watersheds**

Benefits of an Integrated Plan

- Cleaner water faster
 - Treats an additional 100 million gallons of polluted runoff each year
- More “bang for the buck”
 - Stormwater projects are 100 times more cost effective than deferred CSO projects
- Deferring CSO projects provides time to implement sewer system improvements
 - Could eliminate need to construct storage projects
 - Could save up to \$60M

Integrated Plan Provides Greater Water Quality Benefits



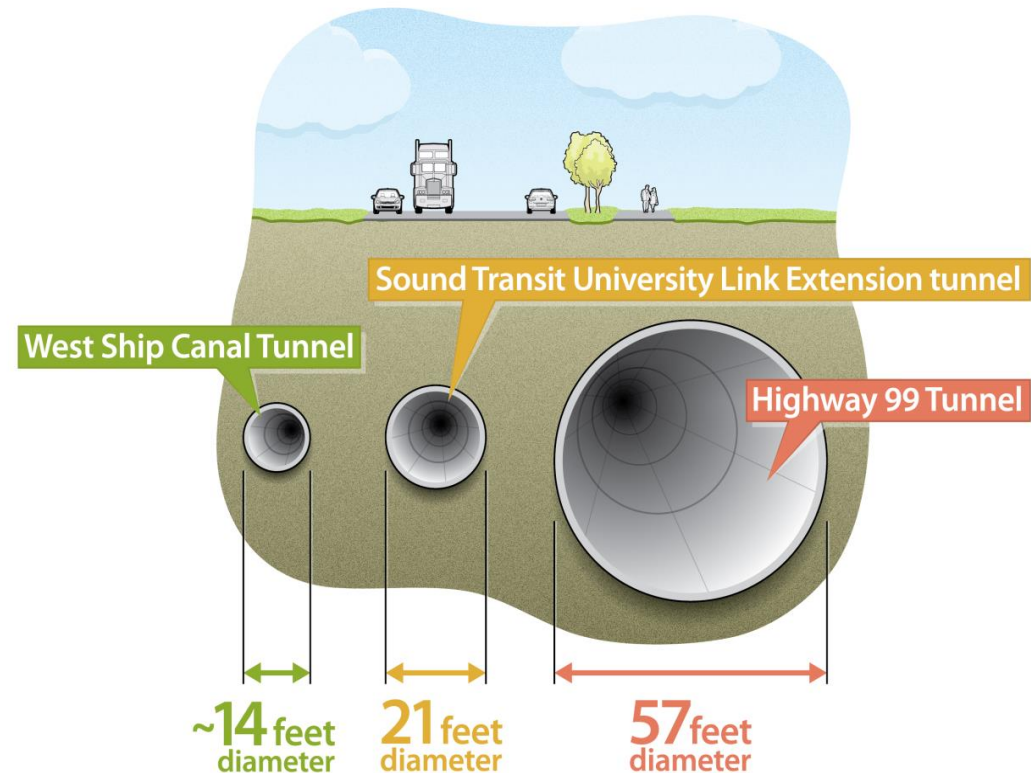
Shared West Ship Canal Tunnel Project



- Combines four projects into one project with King County
- 2.7 mile storage tunnel between Ballard and Wallingford
- 15 million gallons of storage
- Prevents 130 CSO overflows per year into Ship Canal and Lake Washington (about 50 million gallons)

Comparison of relative tunnel sizes locally

- Shared West Ship Canal Tunnel
 - 16 times smaller than the Highway 99 tunnel
 - 2.5 times smaller than the Sound Transit University Link Extension Tunnel



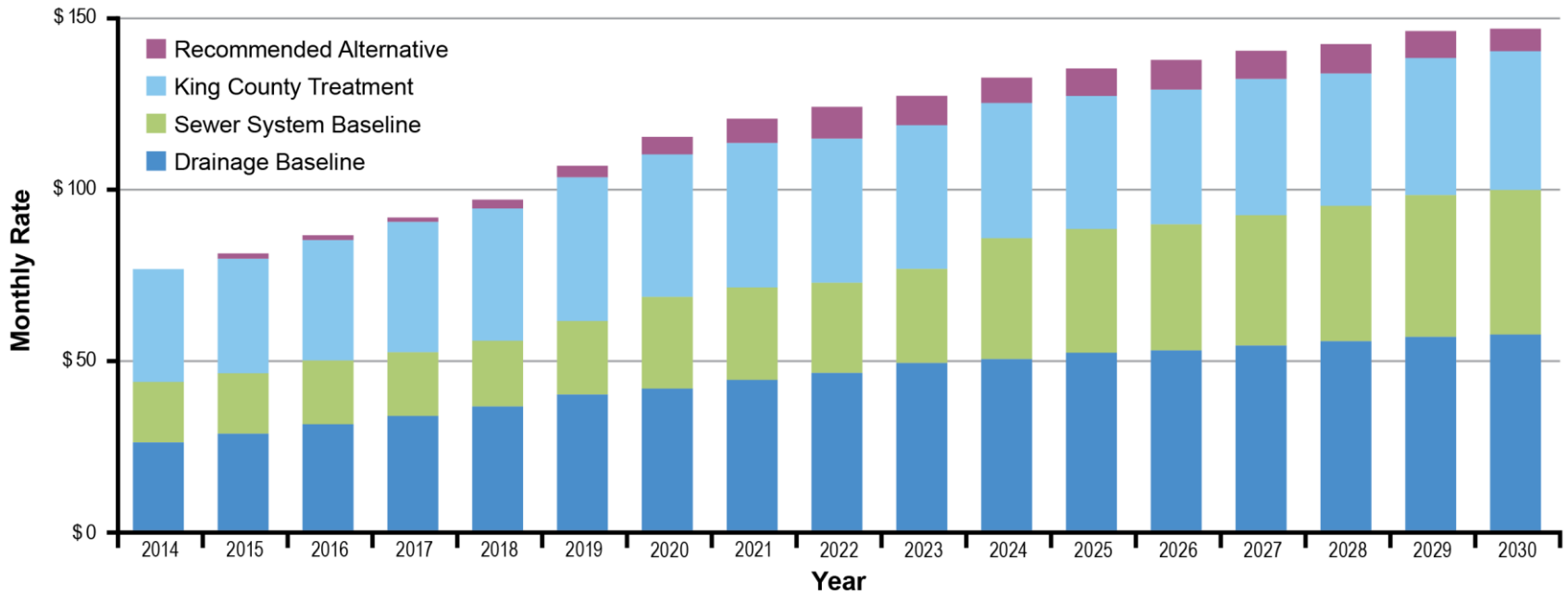
Benefits of Shared West Ship Canal Tunnel

- Fewer construction impacts than 4 separate projects
 - Less open-trench construction
 - Less excavation and hauling
 - Fewer truck trips ~7,000 vs ~37,000.
- Greater operational flexibility
- Smaller facility footprint at the surface
- Supported by regulators and stakeholders
- County project schedule accelerated

Project planning underway with King County

- SPU and King County Consent Decrees encourage cooperation
- Developing a Joint Project Agreement with King County
- Constructed and operated by SPU
- Total shared project cost projection = \$343 M (in 2014 \$)
 - Cost share is 65% Seattle, 35% King County
 - Cost share based on avoided cost of doing projects independently

Ratepayer impacts



Proposed rates for Recommended Alternative are included in the approved SPU Strategic Business Plan

Monthly Rate Impacts

Option	2015	2020	2025	2030
CSO Only	\$1.05	\$4.80	\$5.35	\$5.11
Recommended Alternative	\$1.18	\$4.84	\$7.63	\$6.58
Rate Difference between CSO Only and Recommended Alternative	\$0.13	\$0.04	\$2.28	\$1.47

Proposed rates for Recommended Alternative are included in the approved SPU Strategic Business Plan

Recommended Alternative informed by community input

- Briefings with 26 community organizations
- CSO Community Sounding Board
- SPU Strategic Business Plan Customer Review Panel
- Briefings of Creeks, Drainage & Wastewater Customer Advisory Committee
- Stakeholder Advisory Group representing Ballard, Fremont and Wallingford
- Written summaries and public outreach materials made available

Recommendation

Endorse the Recommended Alternative for the Plan to Protect Seattle's Waterways for submission to EPA and the Washington Department of Ecology for approval to comply with the Consent Decree