



# Ship Canal Water Quality Project Update

City Council Committee: Parks, Public Utilities & Technology  
*Project Update – April 10, 2024*

# Agenda

1. Background - Combined Sewer Overflows
2. Project Overview
3. Cost and schedule factors
4. Next steps



Seattle  
Public  
Utilities



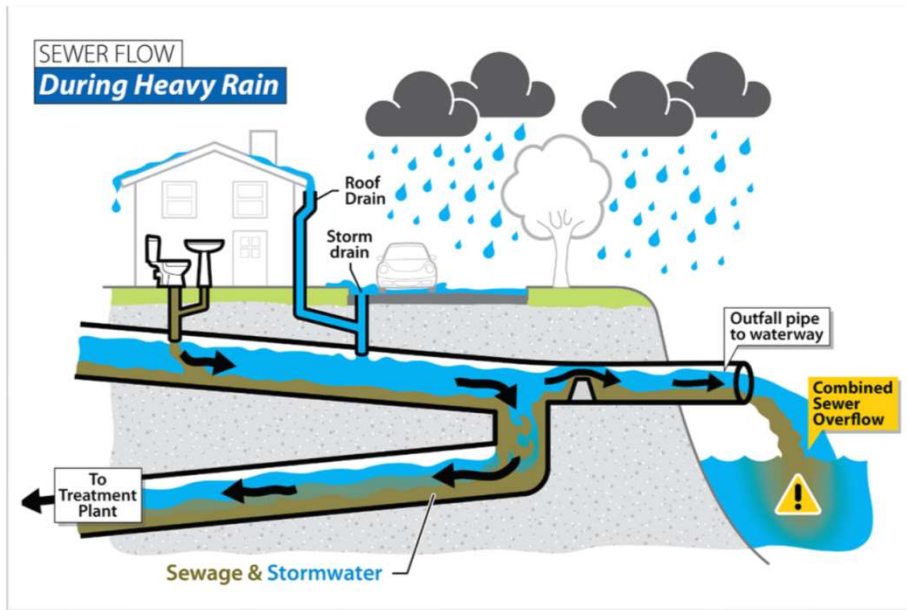
King County



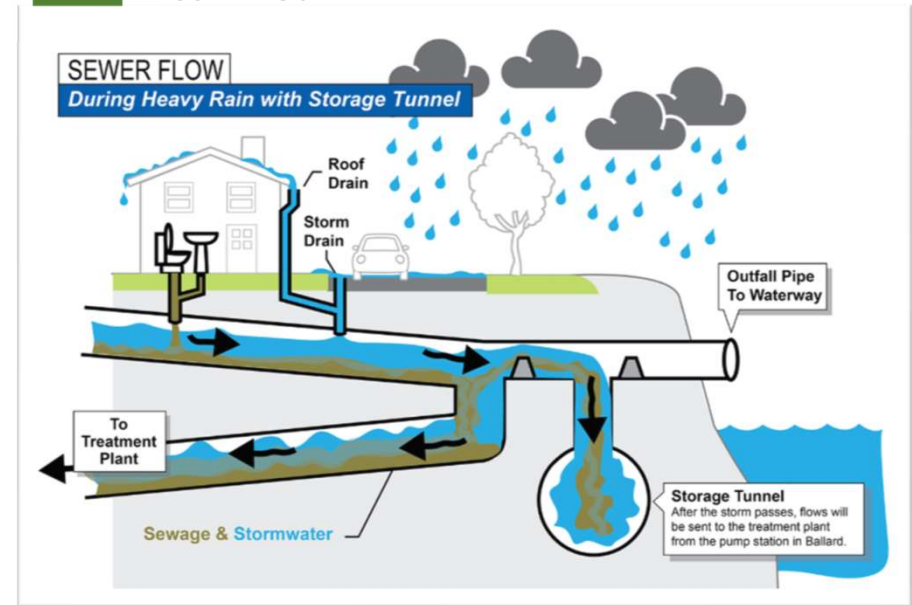
# Combined Sewer Overflows (CSO)



**Heavy Rain without storage tank or tunnel**



**Heavy rain with a storage tank or tunnel**



# 2013 Wastewater Consent Decree

- With US Department of Justice, US Environmental Protection Agency, and WA Department of Ecology
- Performance requirement:  
*Less than 1 CSO per outfall per year on a 20-year moving average*

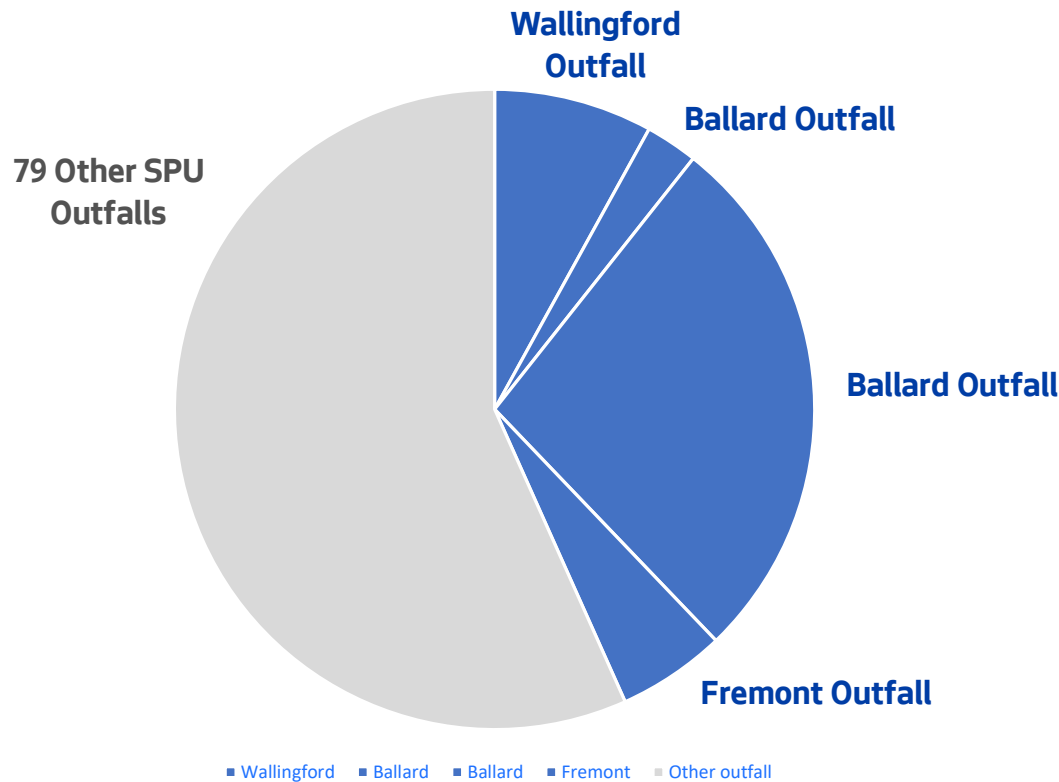
## SPU investments to reduce CSOs since 2013:

- 3 major tank projects
- 2 major green stormwater projects
- 51 sewer system improvement projects

Plus the Ship Canal Water Quality Project and several green stormwater projects are under construction.



# Seattle's 2023 Combined Sewer Overflow Volume



# 43%

of Seattle's 2023 combined sewer overflow volume came from SPU's **four** Ship Canal Water Quality Project outfalls

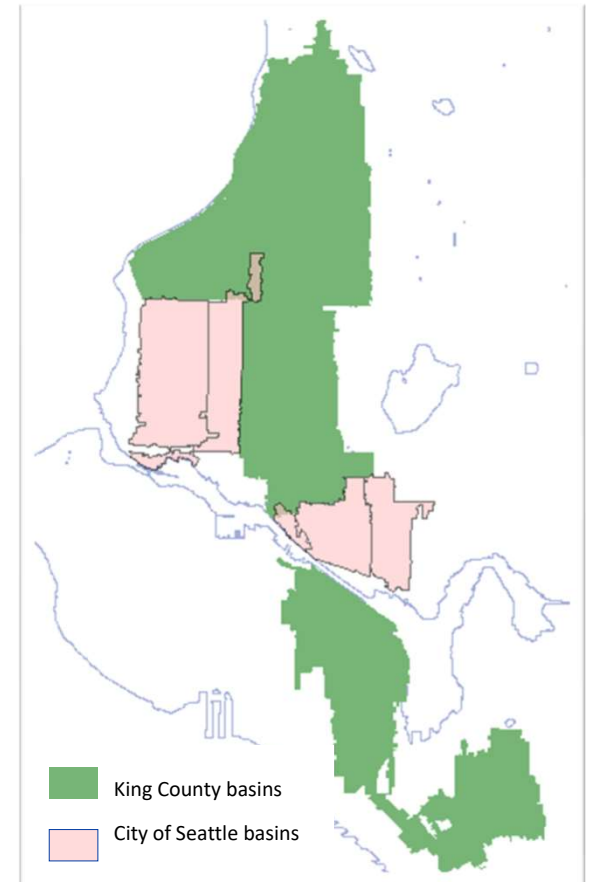
# 57%

of Seattle's 2023 combined sewer overflow volume came from SPU's remaining **seventy-nine** outfalls

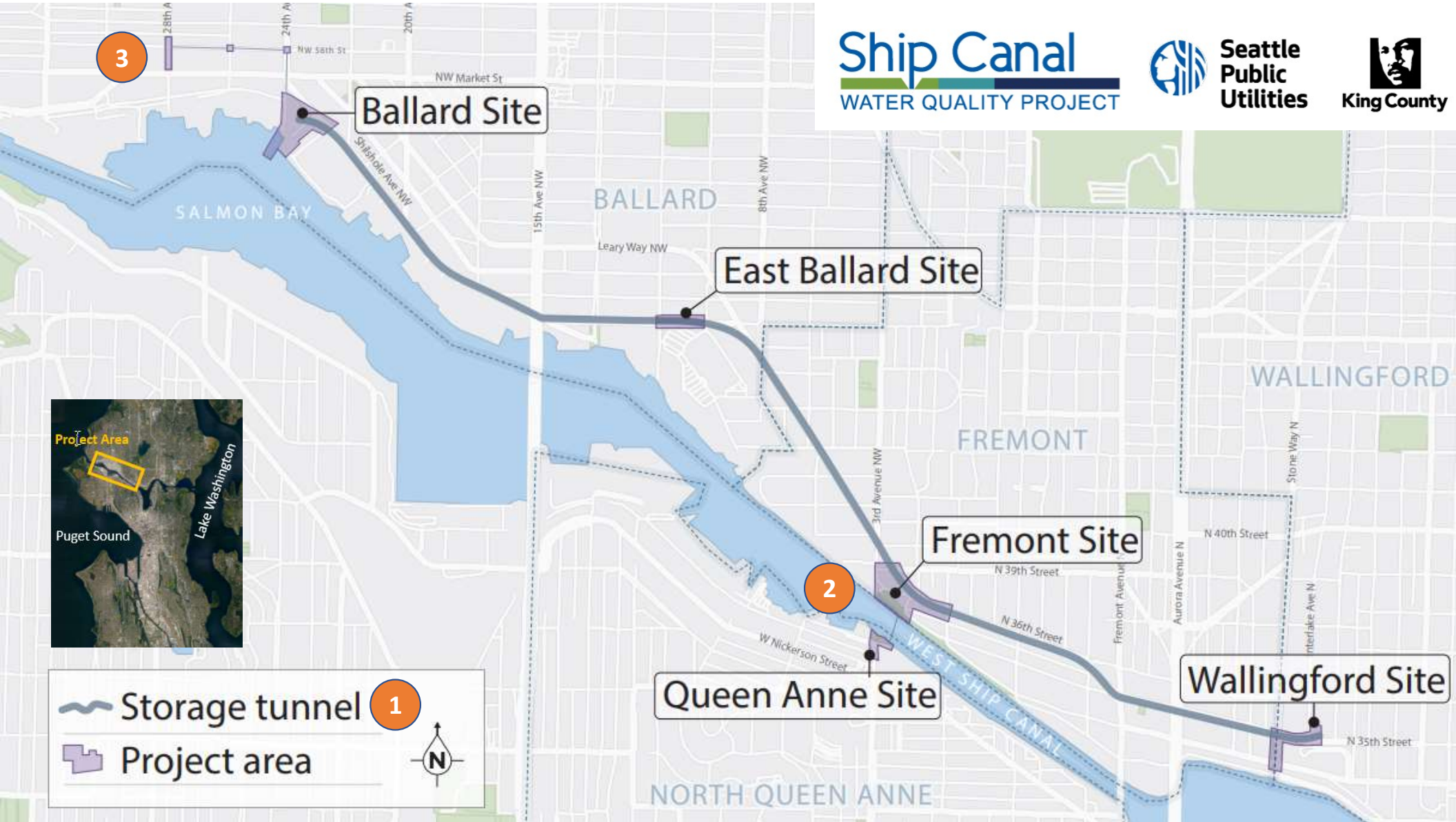




- Reducing Seattle's CSOs. Improving regional water quality.
- Joint Project with King County
  - Joint Project Agreement: City of Seattle (65%), King County (35%)
  - Addresses six outfalls: 2 King County, 4 Seattle
- Construction underway



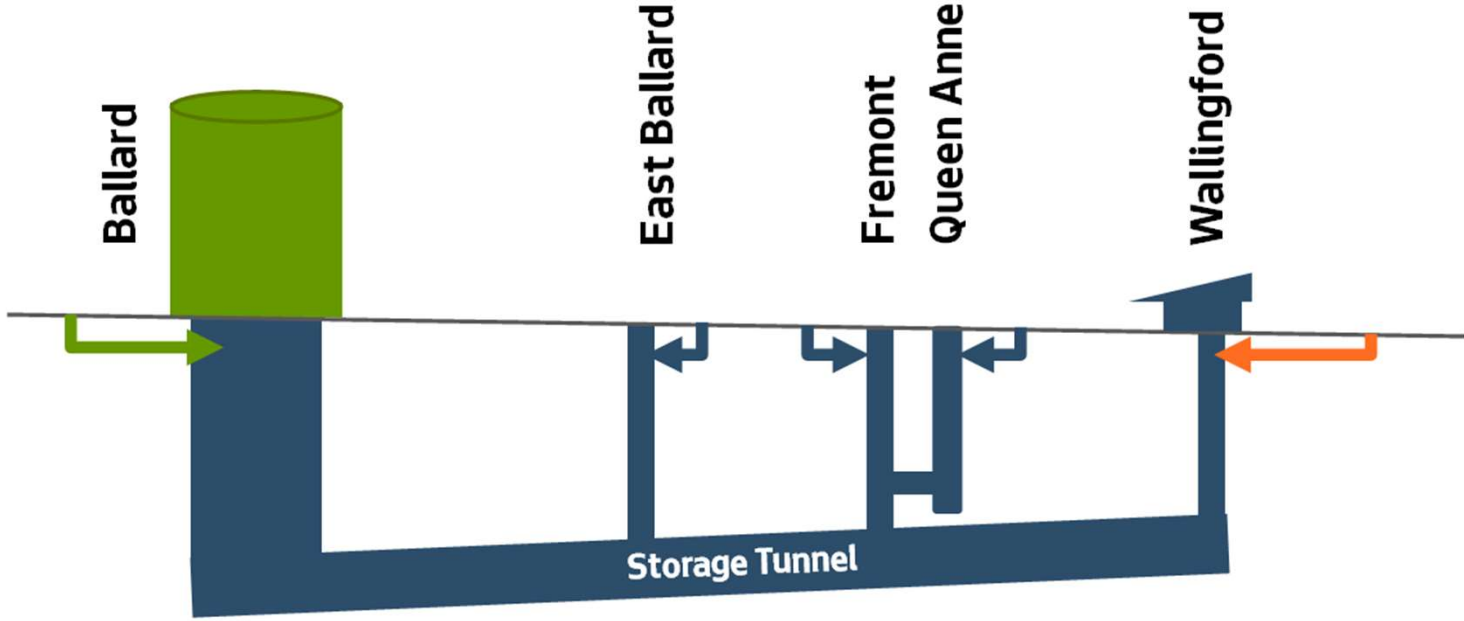




Storage tunnel 1

Project area 2

# Project Components



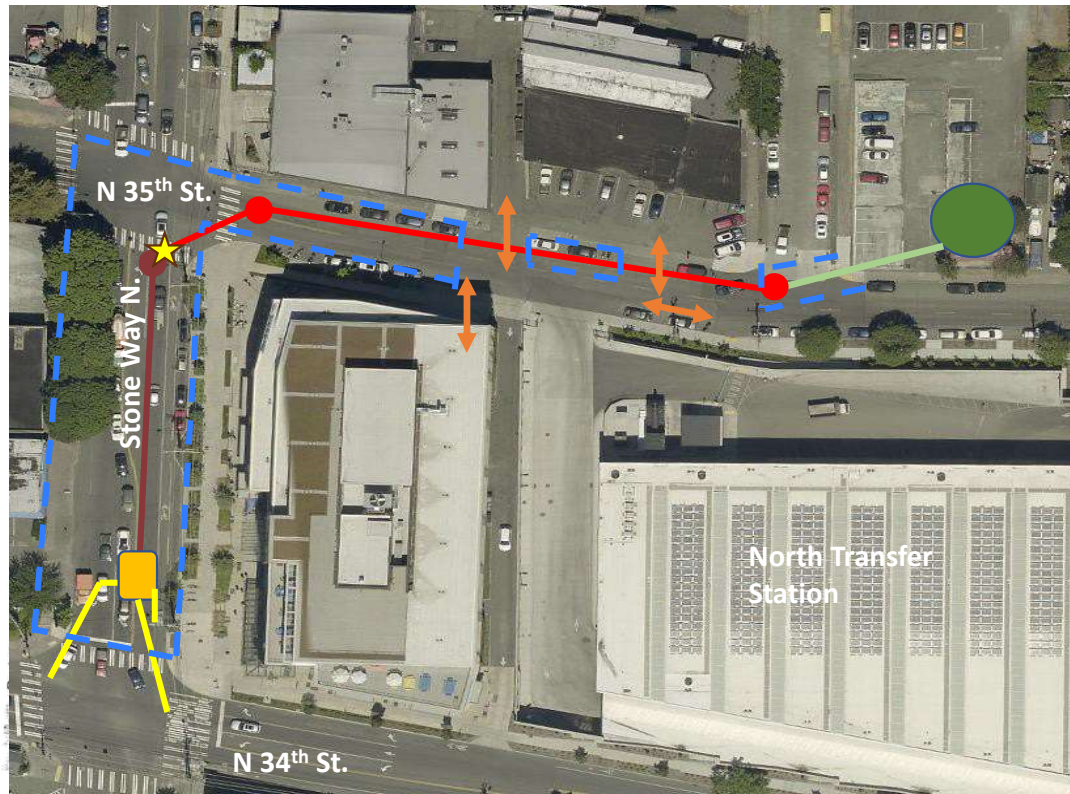


# Construction of Storage Tunnel

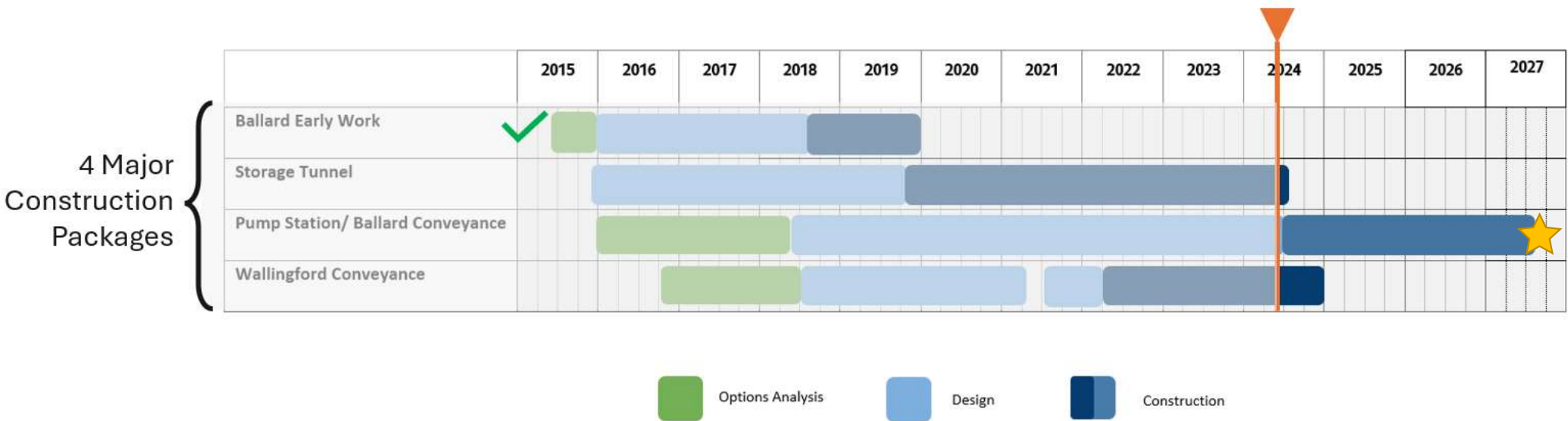




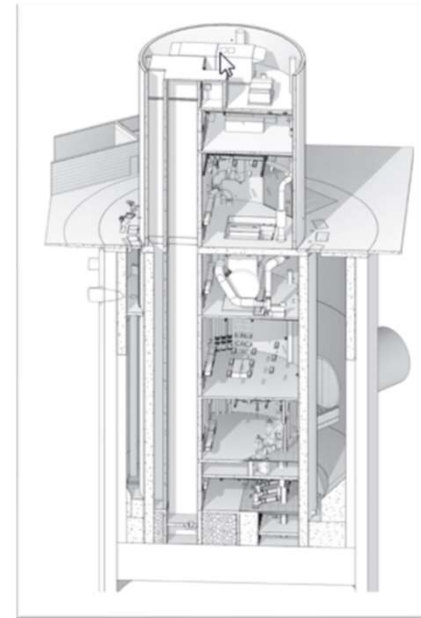
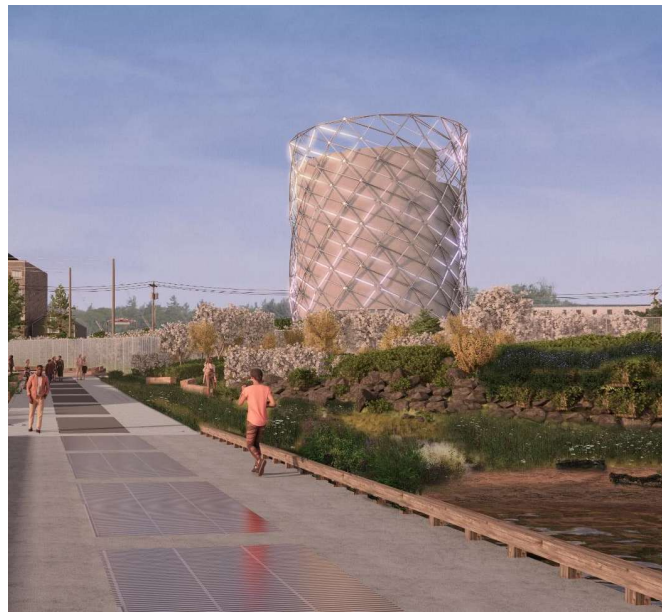
# Under Construction: Wallingford Conveyance



# Progress to Date



# Ballard Conveyance and Pump Station



# Our cost estimate and schedule

Cost estimates include:

- Base Costs
- Escalation
- Uncertainties and Risks

## 2018 Cost Estimate

*\$570M with a 65% confidence\**

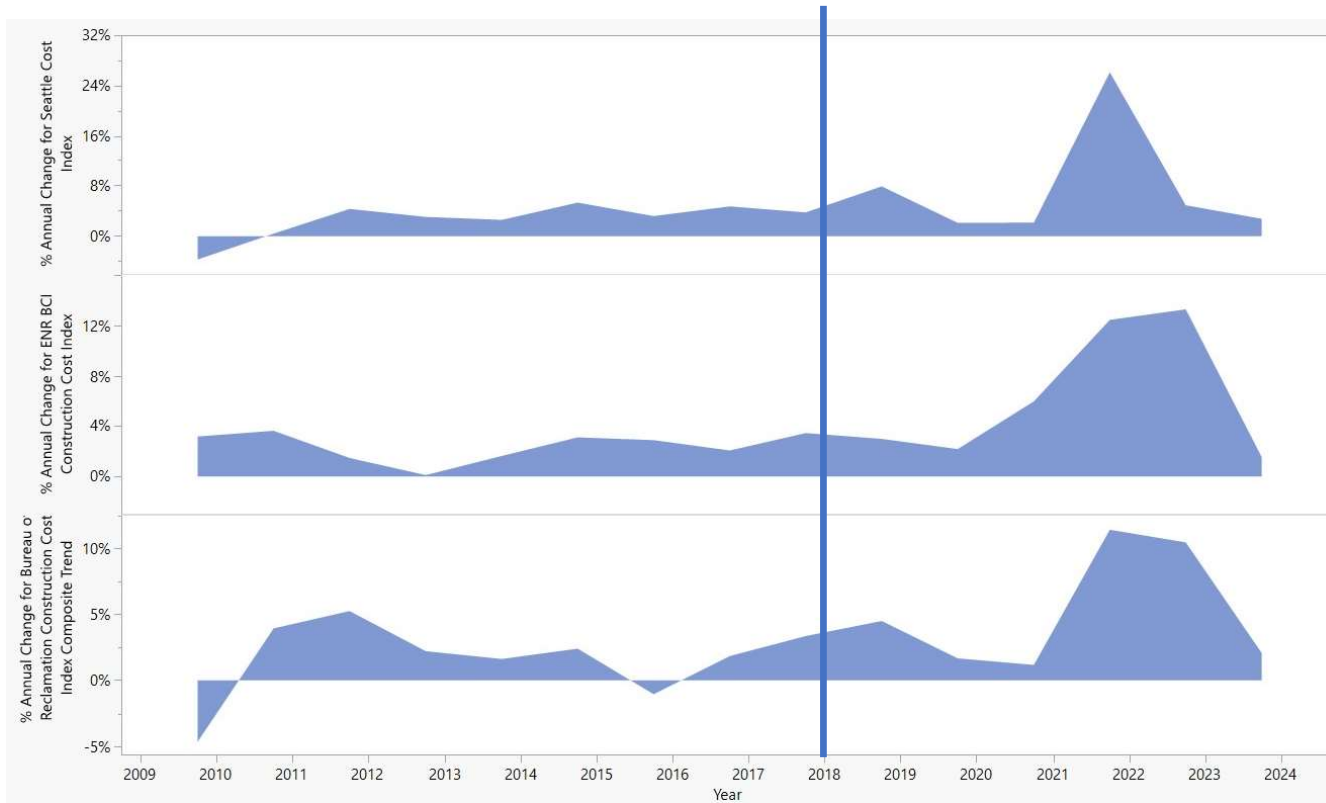
*\*65% chance costs will be at or below the estimated cost and 35% chance the estimated cost will be exceeded*

Over the past 6 years, we have experienced unprecedented escalation and pandemic impacts, and unlikely risk events.

- ✓ Expect to increase budget and extend schedule
- ✓ Committed to our existing rate path



# Escalation





# Underground Risk Events

## How we prepared

- Conducted 73 borings along alignment to establish underground conditions
- Construction contract included “anticipated ground conditions” including 88 boulders greater than 3 feet diameter

## What we encountered

### A 12-foot diameter mega-boulder

- Risk register covered at 5% likelihood
- Contractor asserted damages of ~3.5 months, \$17M

### Inaccurate “As-built” records

- Underground infrastructure not per as-builts
- \$1.8M impact



# Ballard Pump Station and Conveyance Bids

**Bid Solicitation #1** Feb-April 2023

**Re-bid determination & decision** April – June 2023

**Analyze and Implement changes** June-Dec 2023

**Bid Solicitation #2** Jan-March 2024

**Evaluate & select bid**



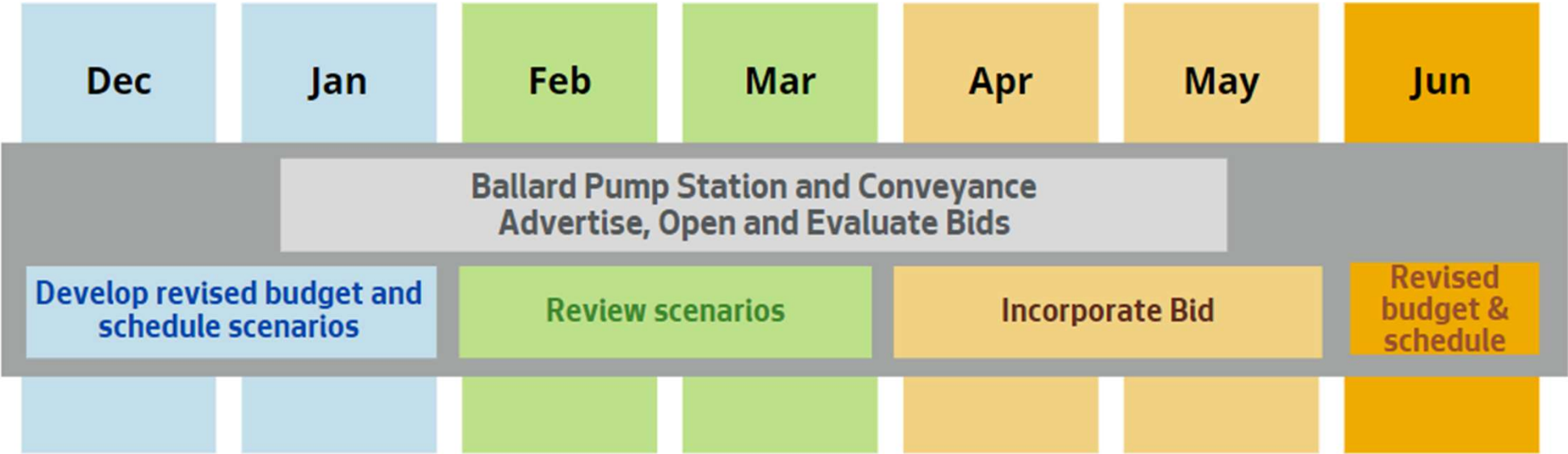
# Working on Project Update

- Increases due to escalation, Covid impacts, and underground risk events
- Continuing to implement cost saving measures and managing schedule adjustments
- **Costs will be managed within our future rate path with no impact to City's General Fund**



# Project Update Process

## Revised Cost and Schedule Milestones



# Summary

- Joint project with King County to reduce CSOs.
- Project construction packages: 1 complete, 2 underway, 1 starting this year.
- Escalation, the pandemic, and underground events have impacted project cost and schedule.
- Revised cost and schedule expected in June 2024.
- Project costs will be managed within our rate path established in the future Strategic Business Plan.

