

# Ship Canal Water Quality Project

Presented to the Metropolitan Water Pollution  
Abatement Advisory Committee  
December 9, 2015

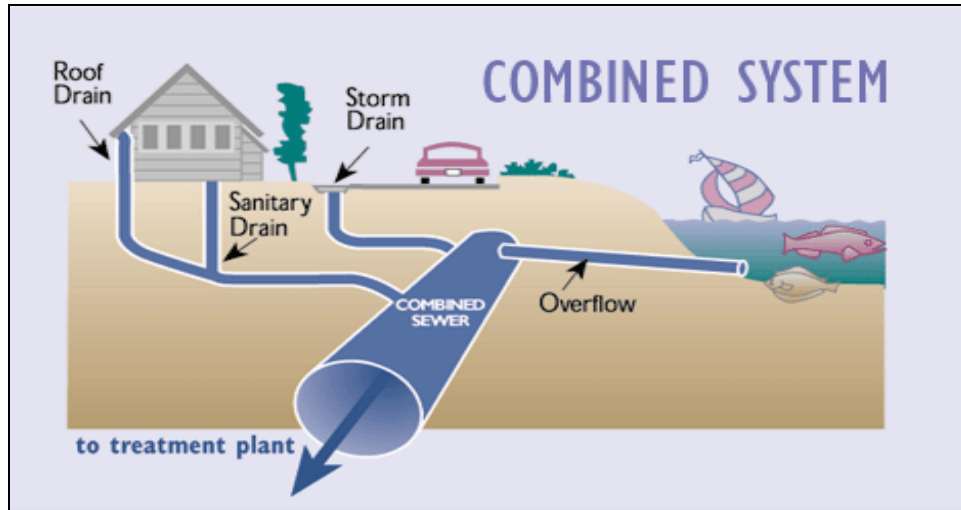


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# What are Combined Sewer Overflows?



- In older cities, sewage and stormwater flow in the same combined sewer pipe
- CSOs are designed relief points that allow untreated discharges during heavy rains
- King County has to work closely with Seattle to control overflows



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# Where are CSOs?

- Combined System exists only within City of Seattle
  - ~20% of County system is combined
- King County & Seattle have responsibilities to manage CSOs
  - Seattle has ~90 CSOs
  - King County has 38 CSOs
    - Also 4 CSO treatment plants

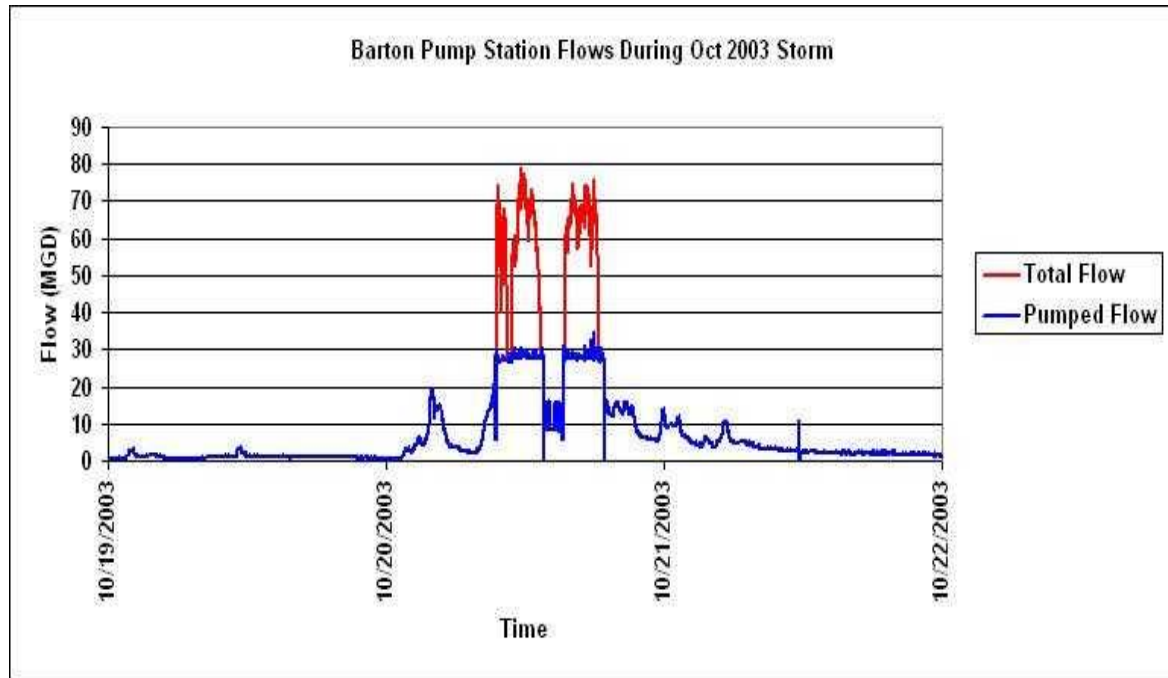


King County Combined Sewer Overflow (CSO) Locations

- King County CSO
- City of Seattle CSO
- ◆ CSO Treatment Plant/Facility
- Wastewater Treatment Plant
- Park

# Why Are Combined Systems a Challenge?

- Stormwater causes large fluctuations in volume
- The Hydrograph to the right shows:
  - Flow volume over time during a storm
  - The red line shows more flow than the pipeline can carry – it overflows

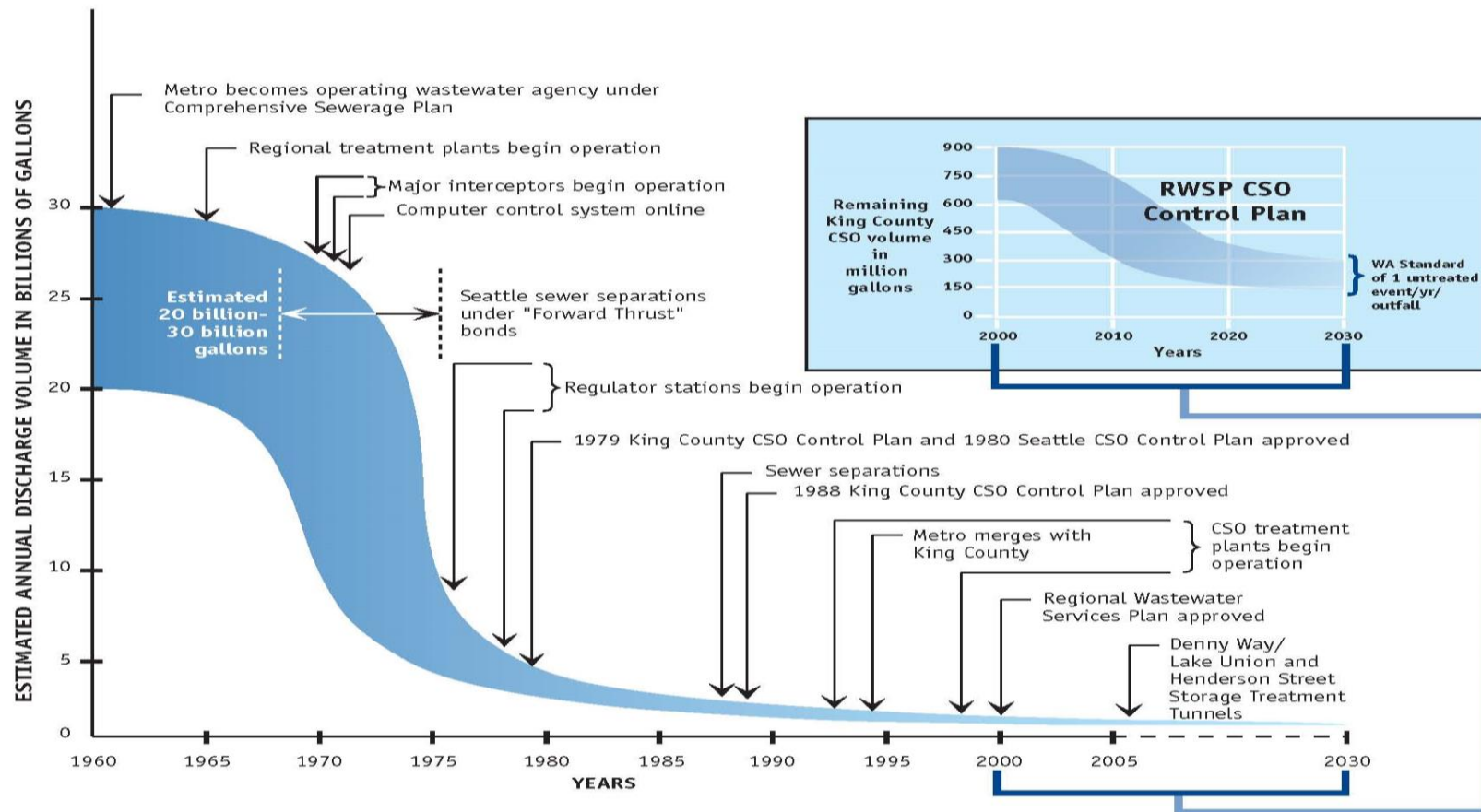


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# Where We Are Today



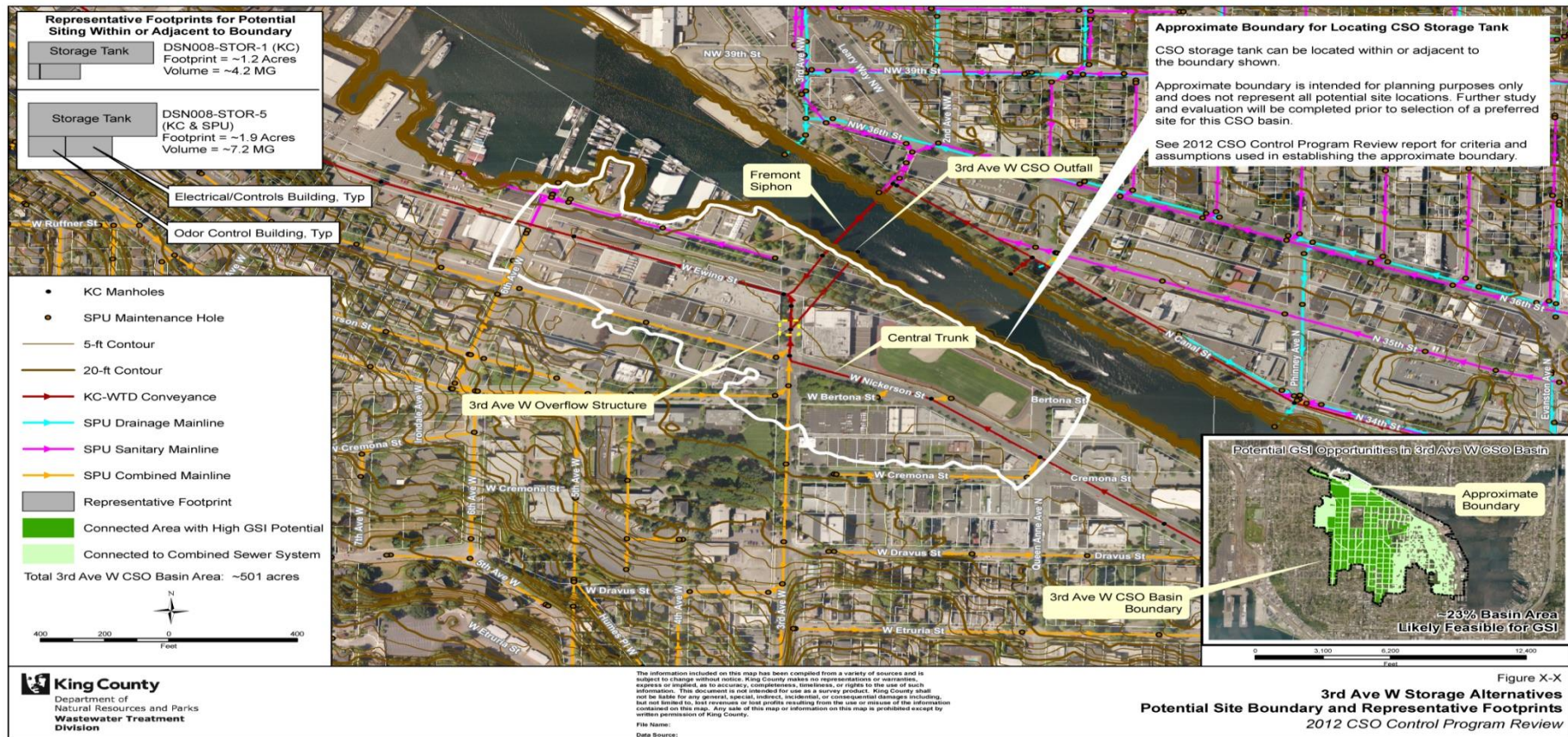
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# King County's Approved CSO Control Plan





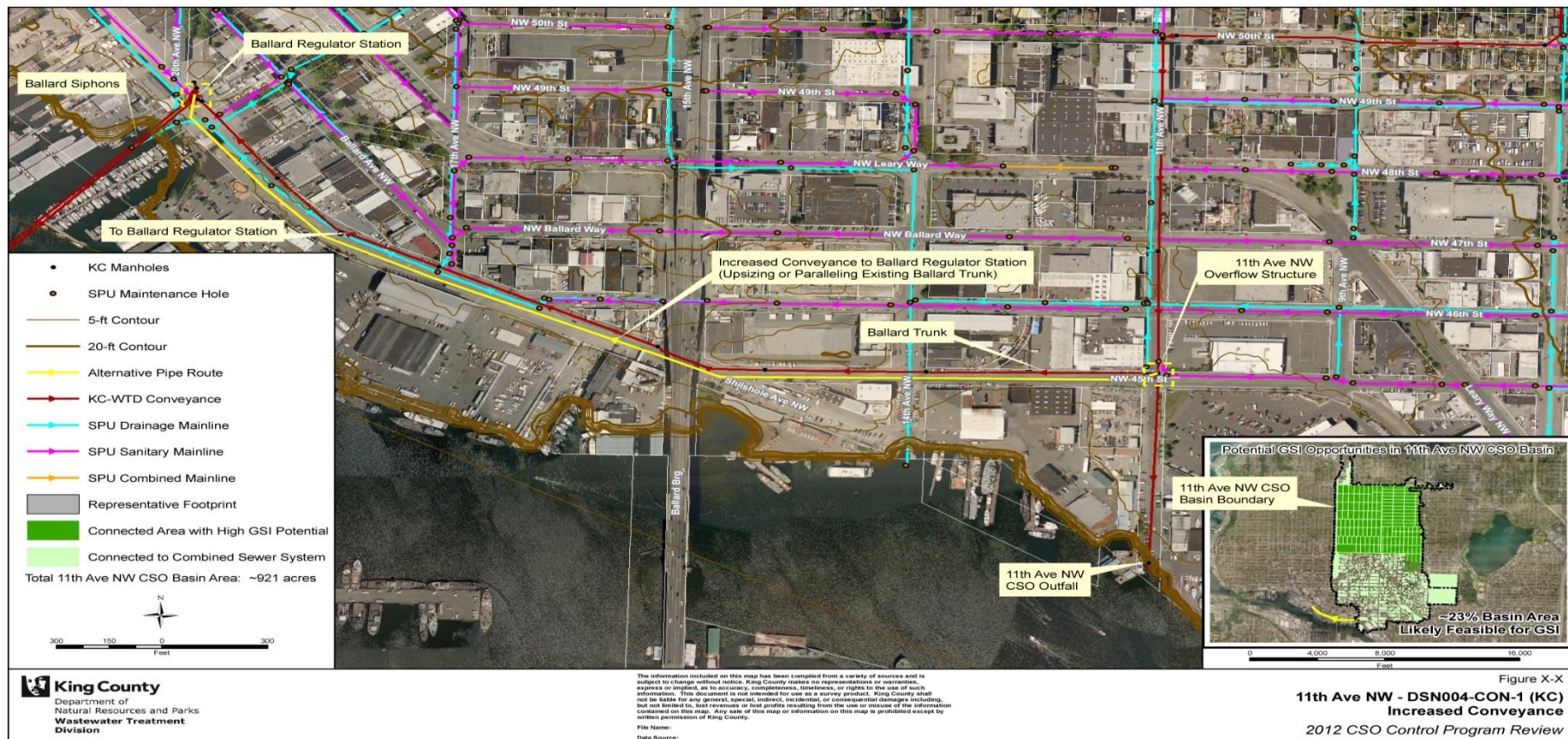
# 3<sup>rd</sup> Ave W – Storage



## Ship Canal

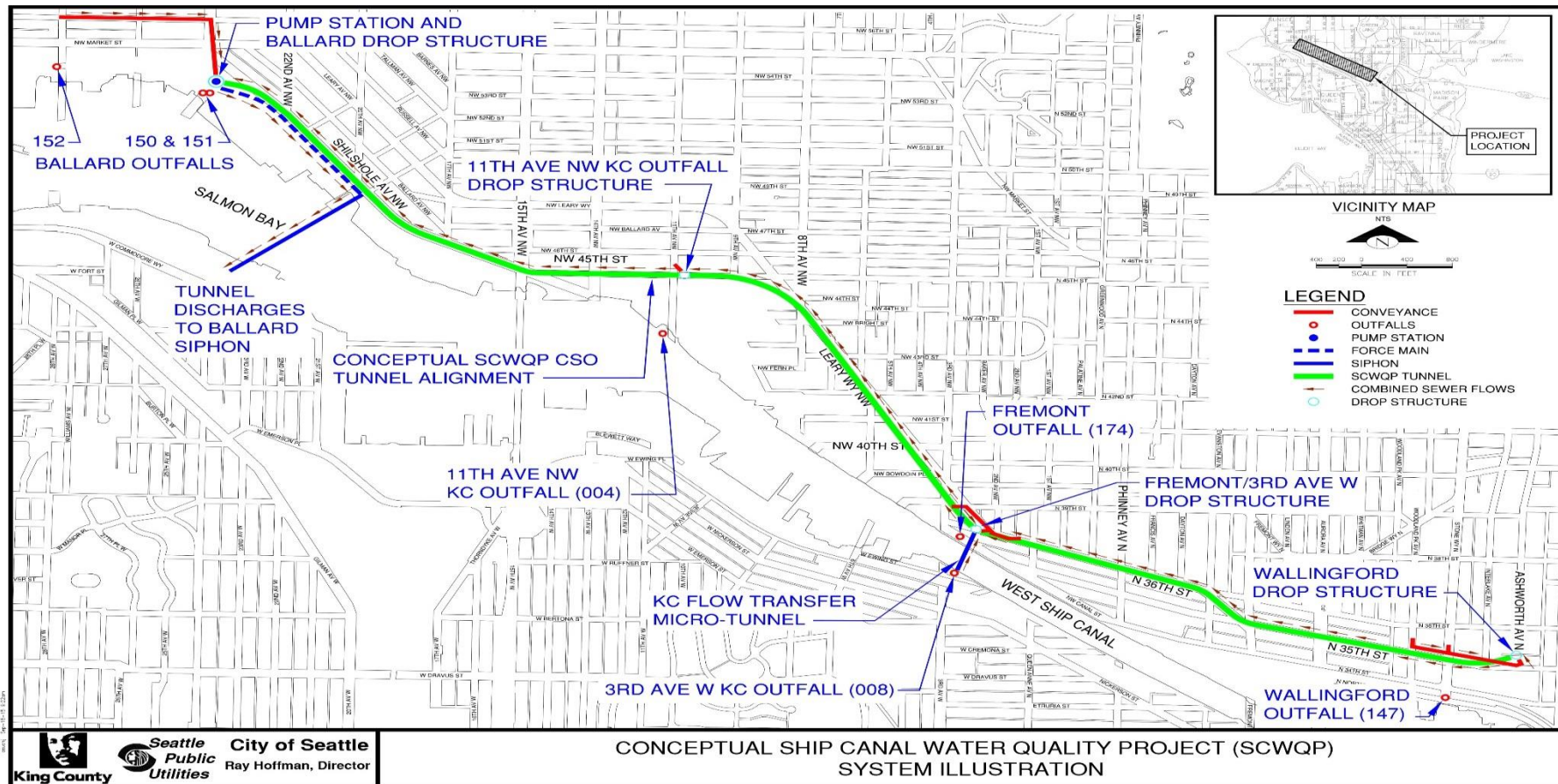


# 11<sup>th</sup> Ave NW – Conveyance





# SHIP CANAL WATER QUALITY PROJECT OVERVIEW



# Ship Canal Water Quality Project

## Overview continued

- Combines multiple independent projects into one shared project with King County to control:
  - Five City CSOs
  - Two County CSOs
- 2.7 mile underground storage tunnel between Ballard and Wallingford
- 15 million gallons of storage capacity
- Prevents 130 sewer overflows each year (about 50 million gallons)



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# BENEFITS OF THE SHIP CANAL WATER QUALITY PROJECT

- Construction of a single storage tunnel replaces the need to construct multiple independent storage facilities in the Wallingford/Ballard area
- Storage Tunnel construction will cause fewer construction disruptions across the project area
- Once completed, the Storage Tunnel has less of an impact on neighborhoods
- Storage Tunnel allows WTD and SPU to operate more as a single system



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# Project Milestones

Milestones	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Environmental Review/Begin Project Design												
Complete Design												
Construction												
Startup & Commissioning												



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# Questions?

