



#### Urban Forestry Commission presentation

#### Mike Wynne Ship Canal Project Deputy Project Manager

February 12, 2020







Ship Canal Water Quality Projects (SCWQP) Review

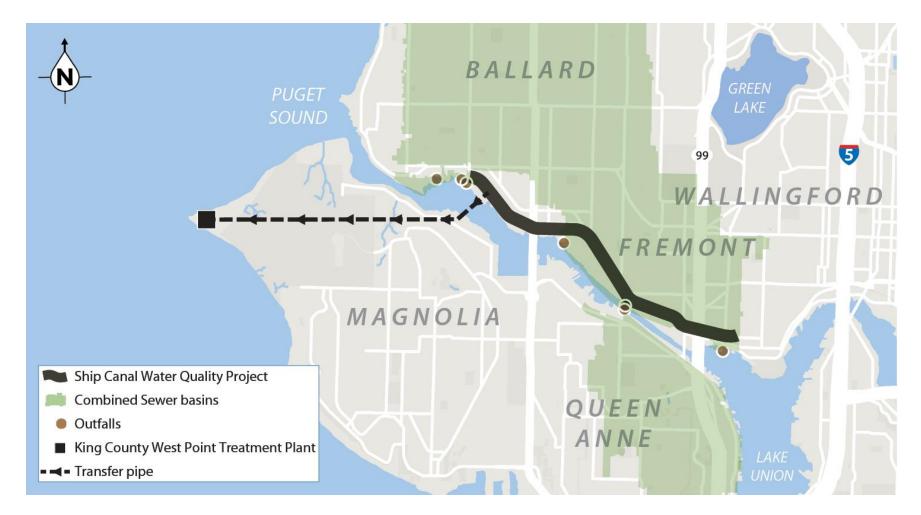
**Tree Planting Plans** 

**Tree Mitigation Proposal** 

Questions

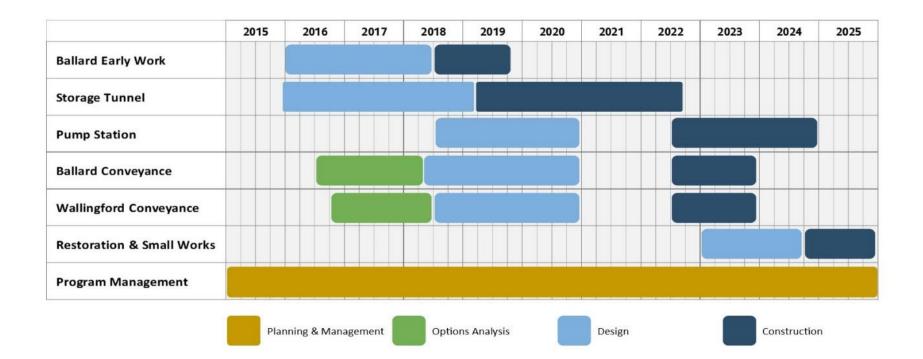


# **Ship Canal Water Quality Project**





## **Construction Timeline**





# **Tree Inventory & Assessment**

- 80 trees require removal
  - 40 classified as exceptional
    - 24,250 ft<sup>2</sup> canopy cover in Ballard, Fremont, Queen Anne
  - 6 dead or dying trees removed after assessment was made
- Reasons for removal:
  - Excavation for site remediation
  - Mechanical and odor control vault installation
  - Drop shaft construction
  - Diversion structure construction
  - Above ground structures



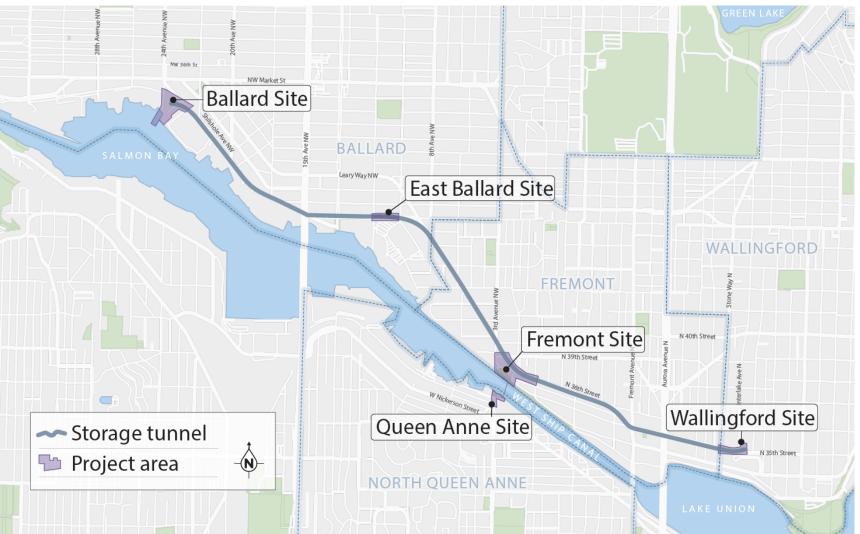
# **Tree Mitigation**

Project Site	Replacement and Mitigation Area	# of Trees needed to meet 2:1 requirement	# of Trees to be replaced on site	Mitigation Trees Needed
Ballard	Ballard	64	44	20
	East Ballard,			
East Ballard	Fremont	8	20	surplus of 12
Fremont	Fremont	32	23	9
Queen Anne	Queen Anne	48	13	35
	Wallingford,			
Wallingford	Fremont	8	29	Surplus of 21
Total:		160	129	31

Sites with more trees removed than replaced Sites with more trees replanted than removed (net tree surplus)



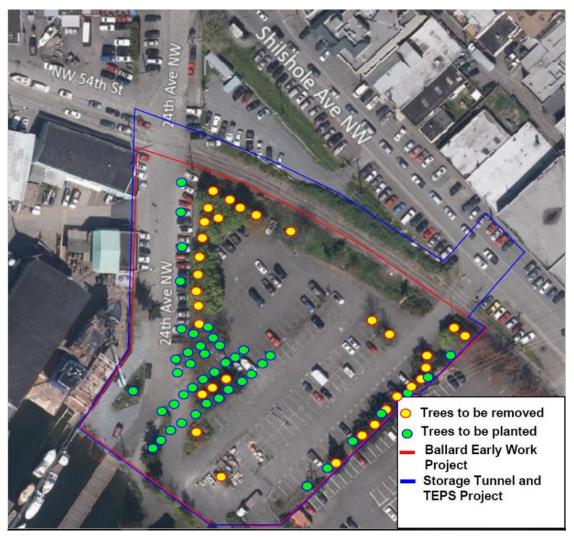
### **Neighborhood Impacts**





# Ballard

- Site remediation requires excavation and tree removal.
- 32 trees need removal (18 trees of an exceptional grove)
- 64\* replacement trees needed
- 44 trees will be planted onsite (30 parcel trees and 14 street trees)

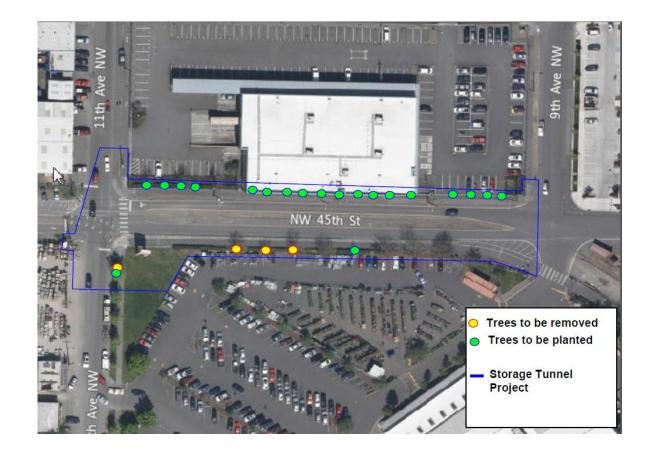


\*Excludes sick/dead trees recommended for removal by the arborist



# **East Ballard**

- Large underground mechanical and odor control vaults
- 4 trees need removal 8\* replacement trees required
- 20 will be planted onsite, (1 parcel tree, 19 street trees)

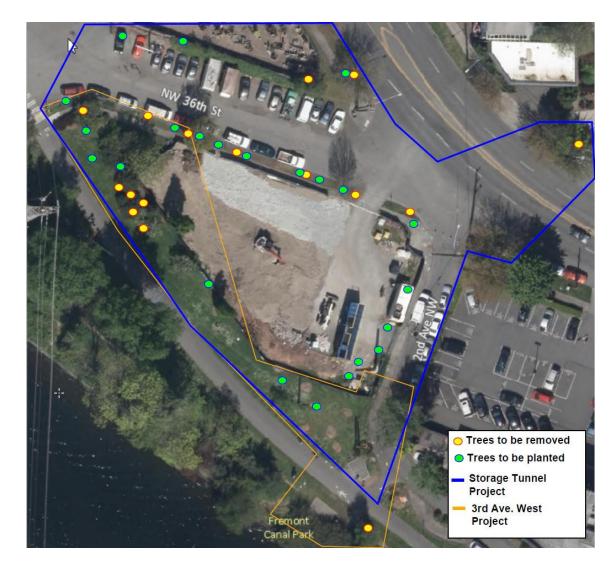


#### \*Excludes sick/dead trees recommended for removal by the arborist



# Fremont

- Underground shaft and diversion structure
- 16 trees need removal
- (2 exceptional trees)
- 32\* replacement trees required
- 23 trees will be planted onsite,
- (5 parcel trees, 18 street trees)

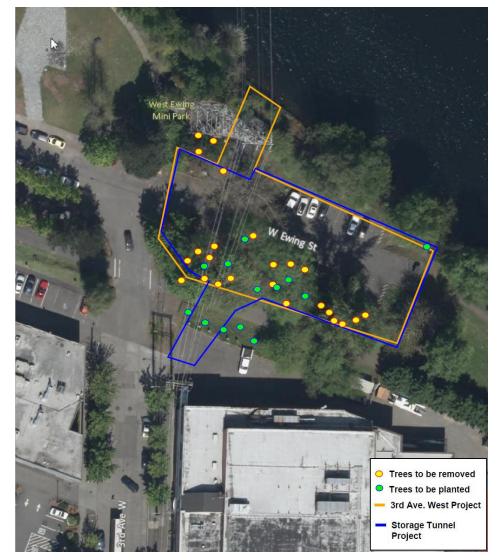


\*Excludes sick/dead trees recommended for removal by the arborist



# North Queen Anne

- Drop shaft and structures
- 24 trees need removal (20 exceptional, 6 dead trees removed already)
- 48\* replacement trees required
- 13 trees will be planted onsite, (1 parcel and 12 street trees)



\*Excludes sick/dead trees recommended for removal by the arborist



# Wallingford

- Storage Tunnel & East Shaft
- Soil remediation
- 4 trees need removal
- 8\* replacement trees required
- 29 trees will be planted onsite, (16 parcel and 13 street trees)

\*Excludes sick/dead trees recommended for removal by the arborist





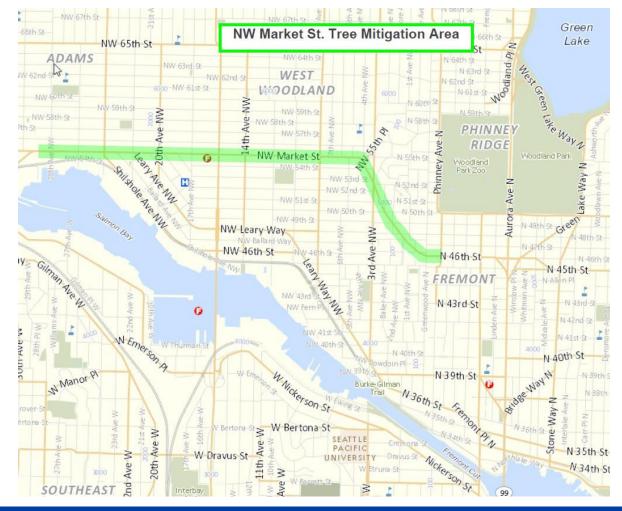
# **Exceptional Tree Canopy Mitigation**

- Exceptional Tree Canopy area estimated at 24,250 square-feet from 40 existing trees
- Assume conservative 25-ft dripline per average deciduous tree, results in a minimum need of 49 trees.
  - Use more conservative estimate of 2 for 1 Executive Order replacement results in need for 80 trees
- 8 or more continuous trees (grove potential at maturity) can be achieved at Ballard, Wallingford, and north Queen Anne sites
- Design meets exceptional tree mitigation intent for both existing sites that had exceptional trees



# **Off-Site Mitigation by SDOT Urban Forestry**

 Infill plantings and tree pit soil augmentation prior to planting





# **Updates since last briefing**

- Trees have been removed from Ballard site, and a few more to be removed next month
- Fewer trees need to be removed overall, due to site design refinement
- Street trees changed from Maples to Hornbeams, Littleleaf Lindens, and Elms
- South Operations Center no longer an option for mitigation
- Pump Station design has begun with many tree planting opportunities
- Tree planting continues until pump station construction ends 2024
- Present to Urban Forestry Commission again after tree planting and mitigation is complete



# **Questions?**

- **Mike Wynne**, Deputy Project Manager, Ship Canal Water Quality Project Storage Tunnel
- Email: <u>mike.wynne@seattle.gov</u>
- Phone number: (206) 684-7859
- Website: <a href="mailto:spushipcanal.participate.online/">spushipcanal.participate.online/</a>
- Sign up for the project listserv to receive updates:

spushipcanal.participate.online/