

Ship Canal

WATER QUALITY PROJECT



Seattle
Public
Utilities



King County

Mike Wynne
Ship Canal Project
Deputy Project Manager

February 12, 2020



Agenda

Ship Canal Water Quality Projects (SCWQP) Review

Tree Planting Plans

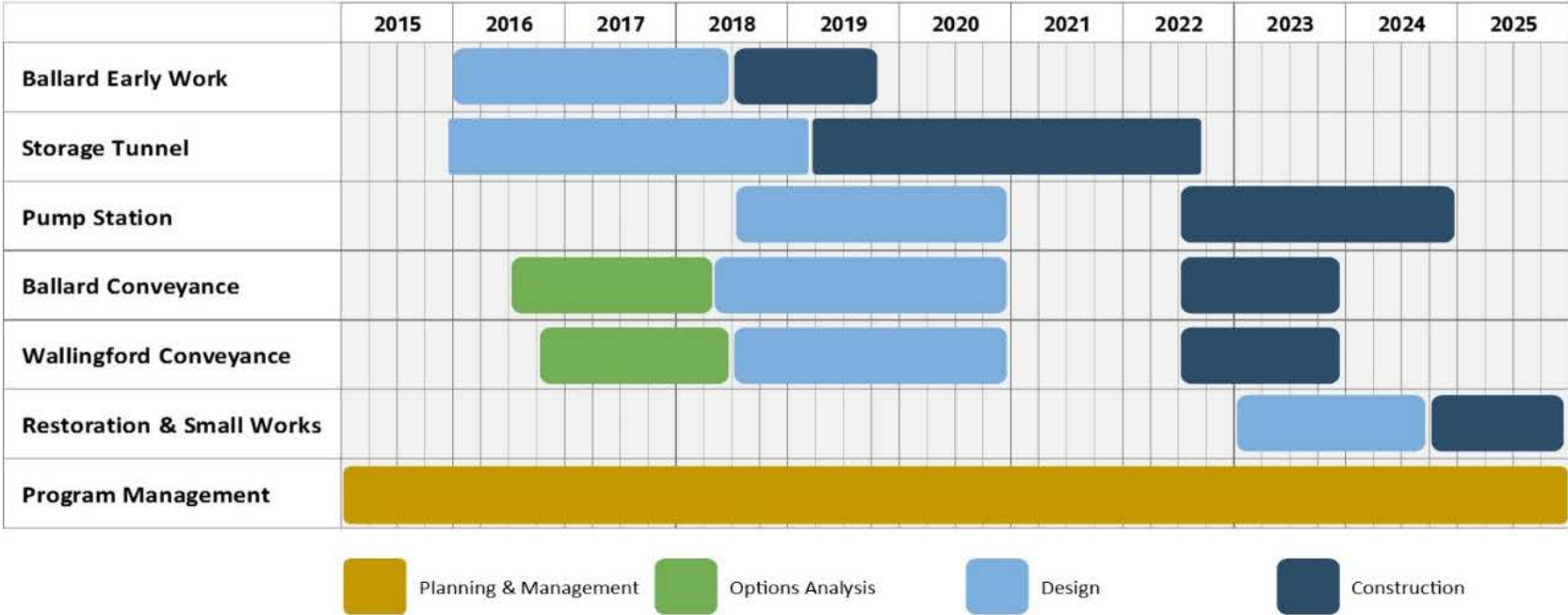
Tree Mitigation Proposal

Questions

Ship Canal Water Quality Project



Construction Timeline



Tree Inventory & Assessment

- 80 trees require removal
 - 40 classified as exceptional
 - 24,250 ft² 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

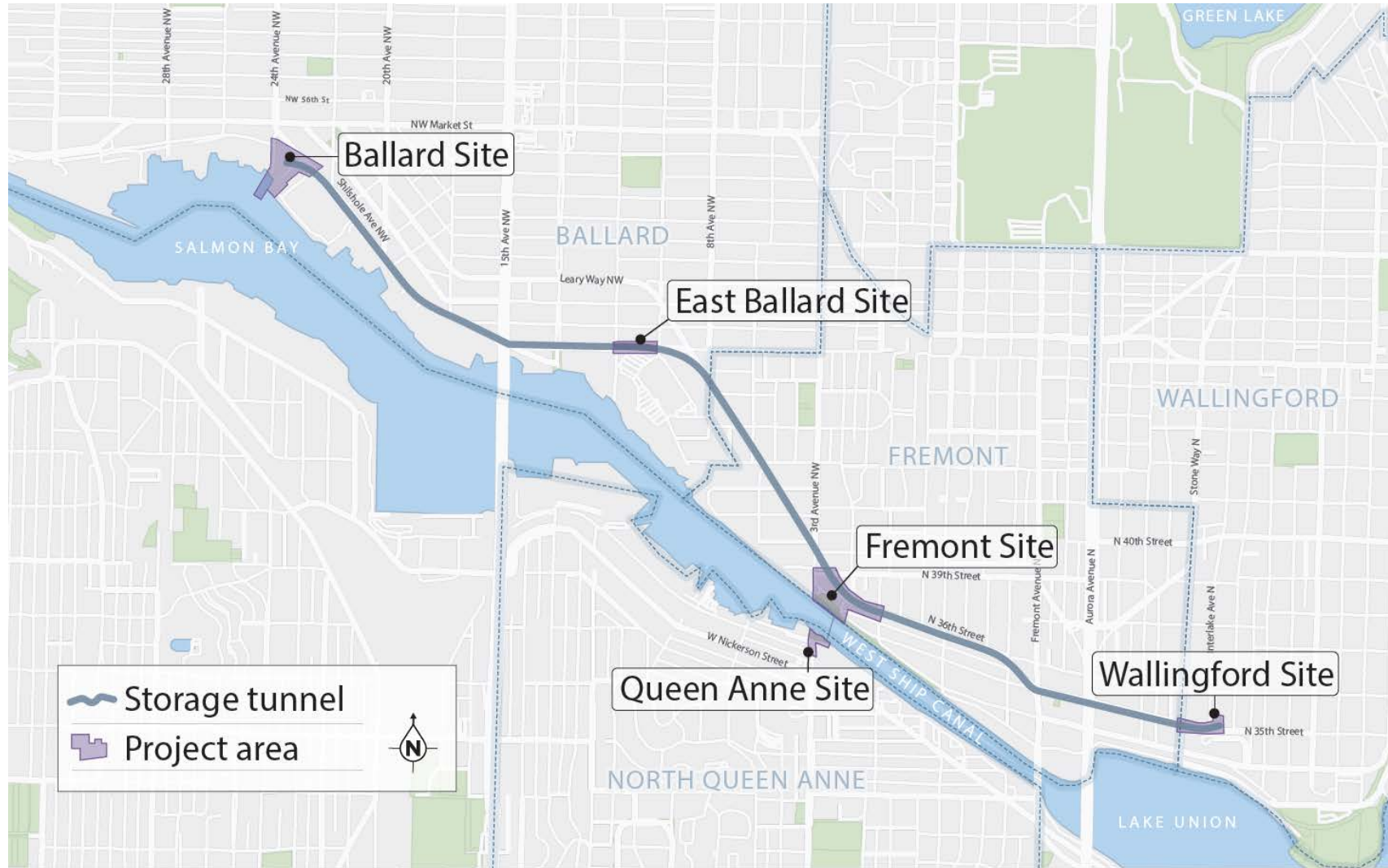


Sites with more trees removed than replaced

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

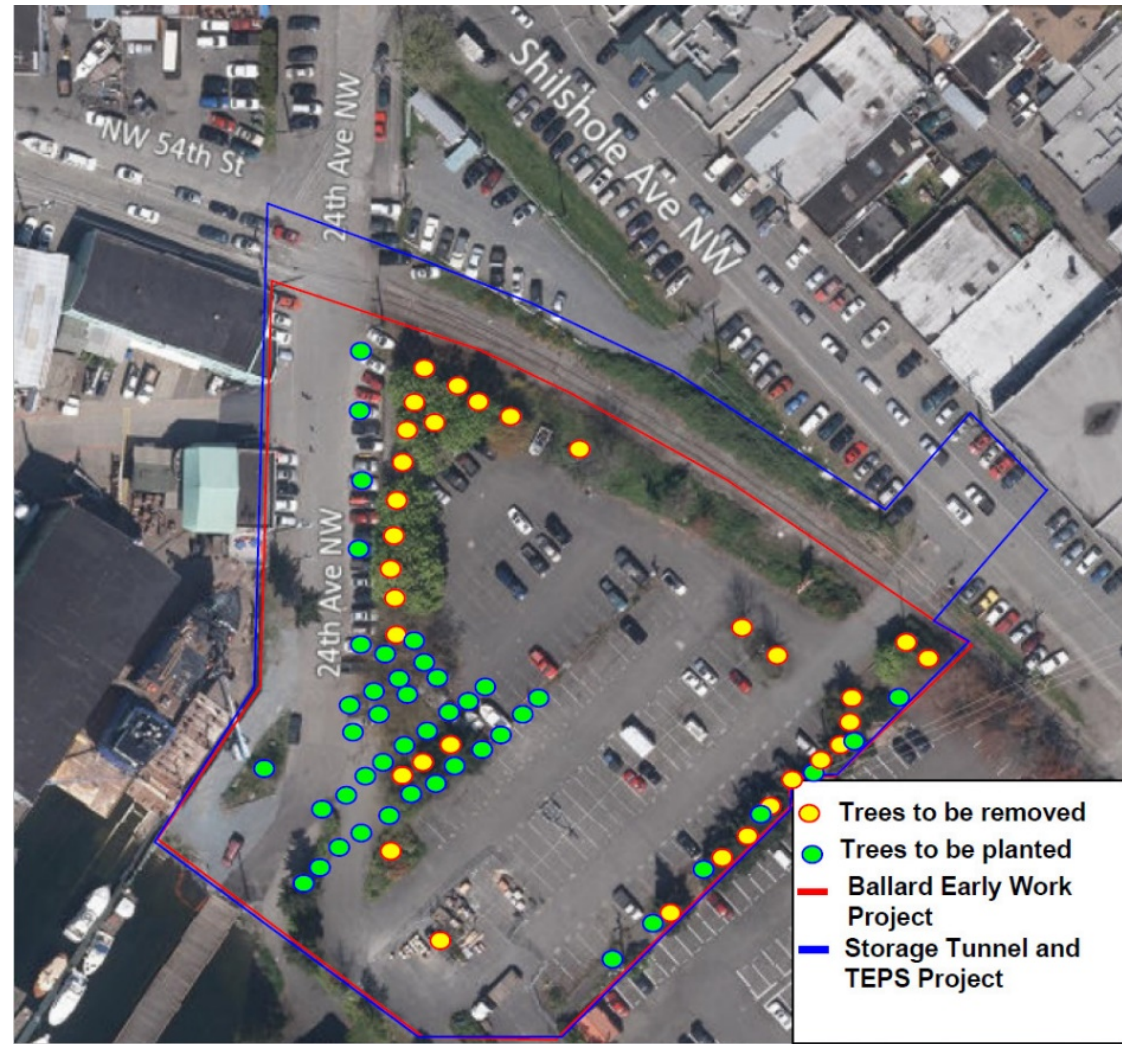


Neighborhood Impacts



Ballard

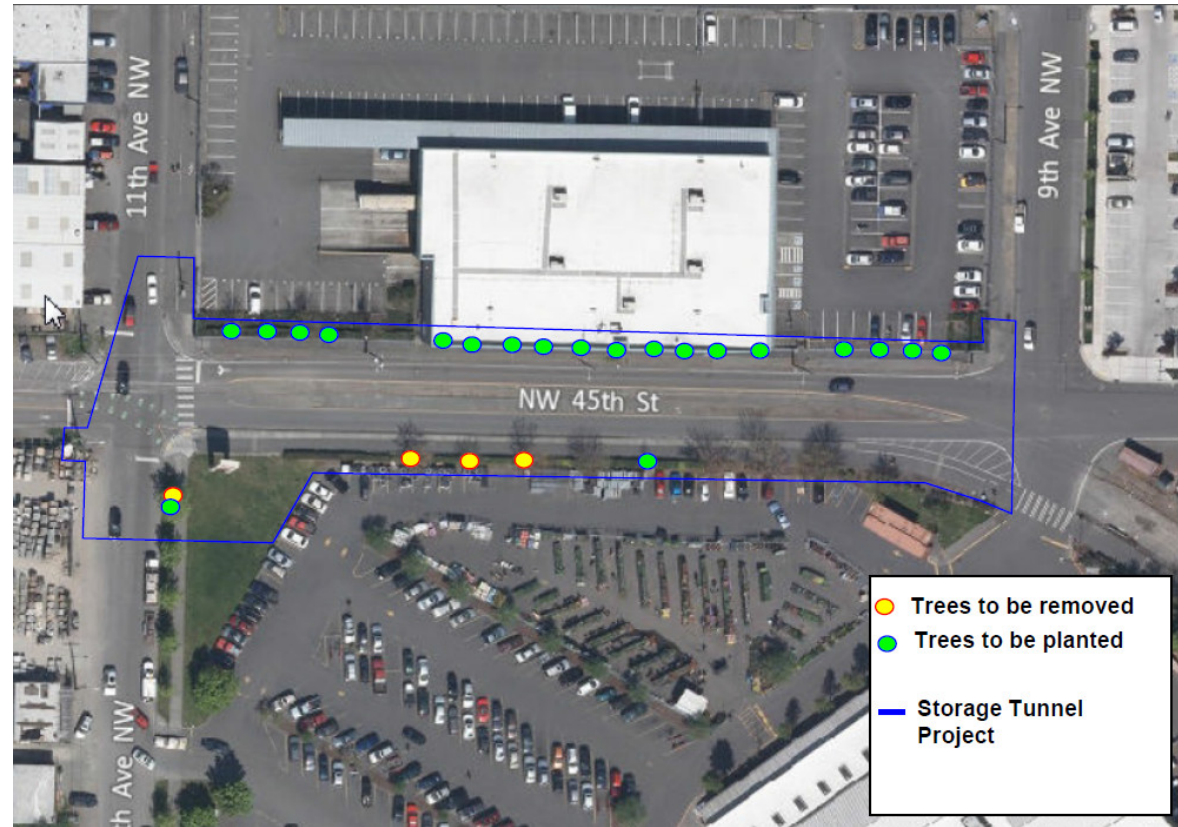
- Site remediation requires excavation and tree removal.
- 32 trees need removal (18 trees of an exceptional grove)
- 64* replacement trees needed
- 44 trees will be planted onsite (30 parcel trees and 14 street trees)



*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

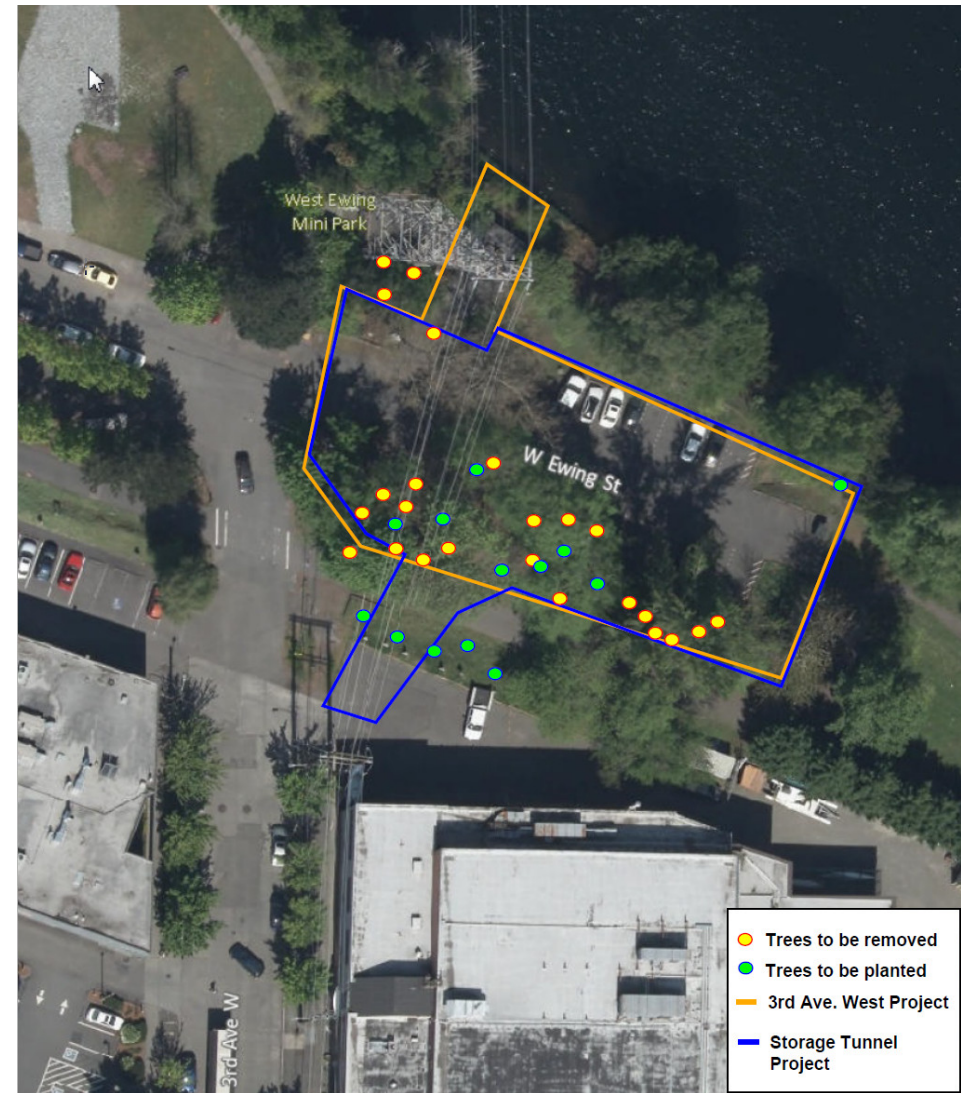
- Underground shaft and diversion structure
- 16 trees need removal (2 exceptional trees)
- 32* replacement trees required
- 23 trees will be planted onsite, (5 parcel trees, 18 street trees)



*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

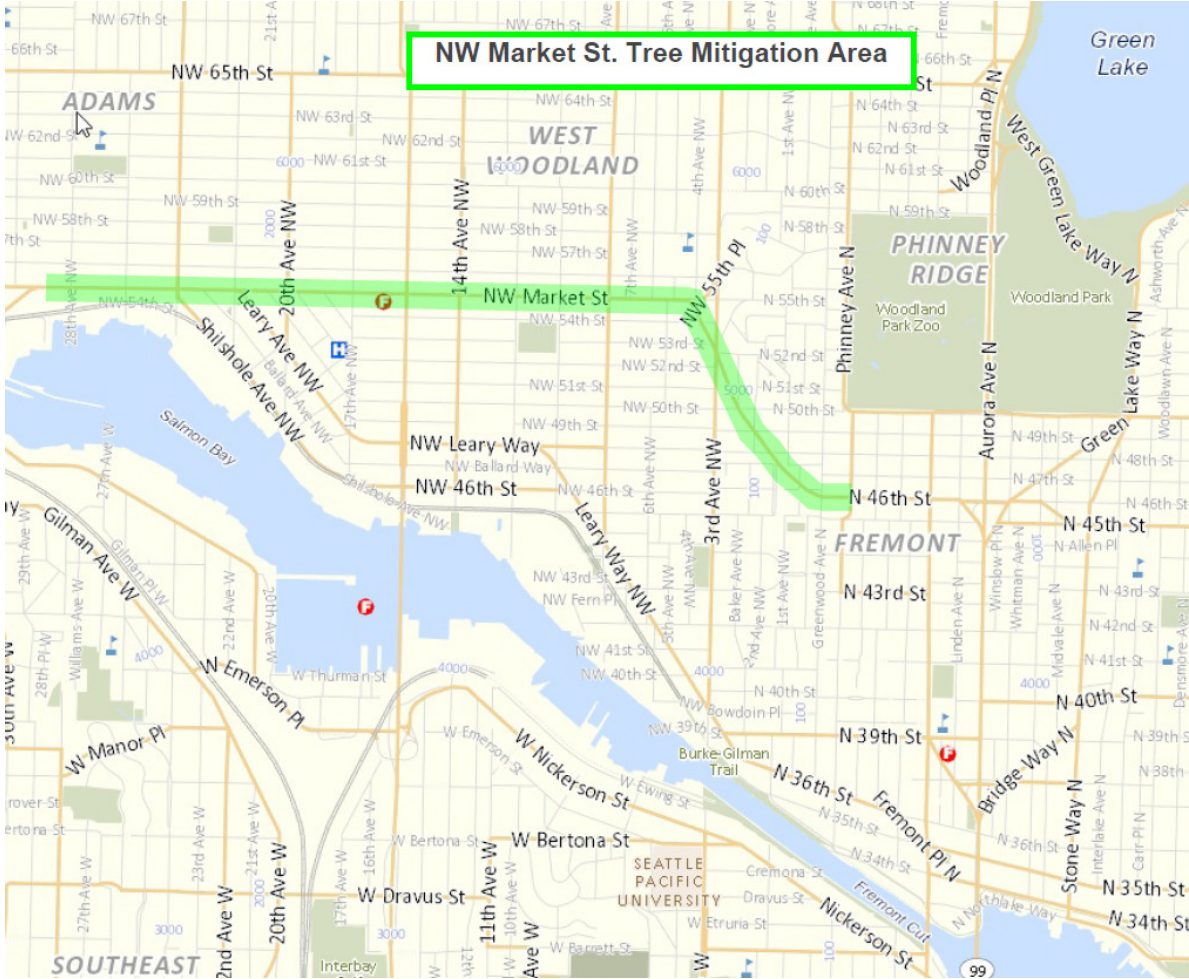


Exceptional Tree Canopy Mitigation

- Exceptional Tree Canopy area estimated at 24,250 ft² from 40 existing trees
- Assume conservative 25-ft dripline per average deciduous tree, results in a minimum need of 49 trees.
 - >>>Instead use the more conservative estimate of the 2 for 1 Executive Order which 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 UFC again after tree planting and mitigation is complete

Questions?

- **Mike Wynne**, Deputy Project Manager, Ship Canal Water Quality Project Storage Tunnel

mike.wynne@seattle.gov

(206) 684-7859

- **Websites:** www.seattle.gov/util/ShipCanalProject
- **Sign up for the project listserv to receive updates:**

<http://www.seattle.gov/lists/shipcanalproject.htm>

