

Coal Creek Sewer Upgrade Project

MWPAAC Subcommittees

January 6, 2022

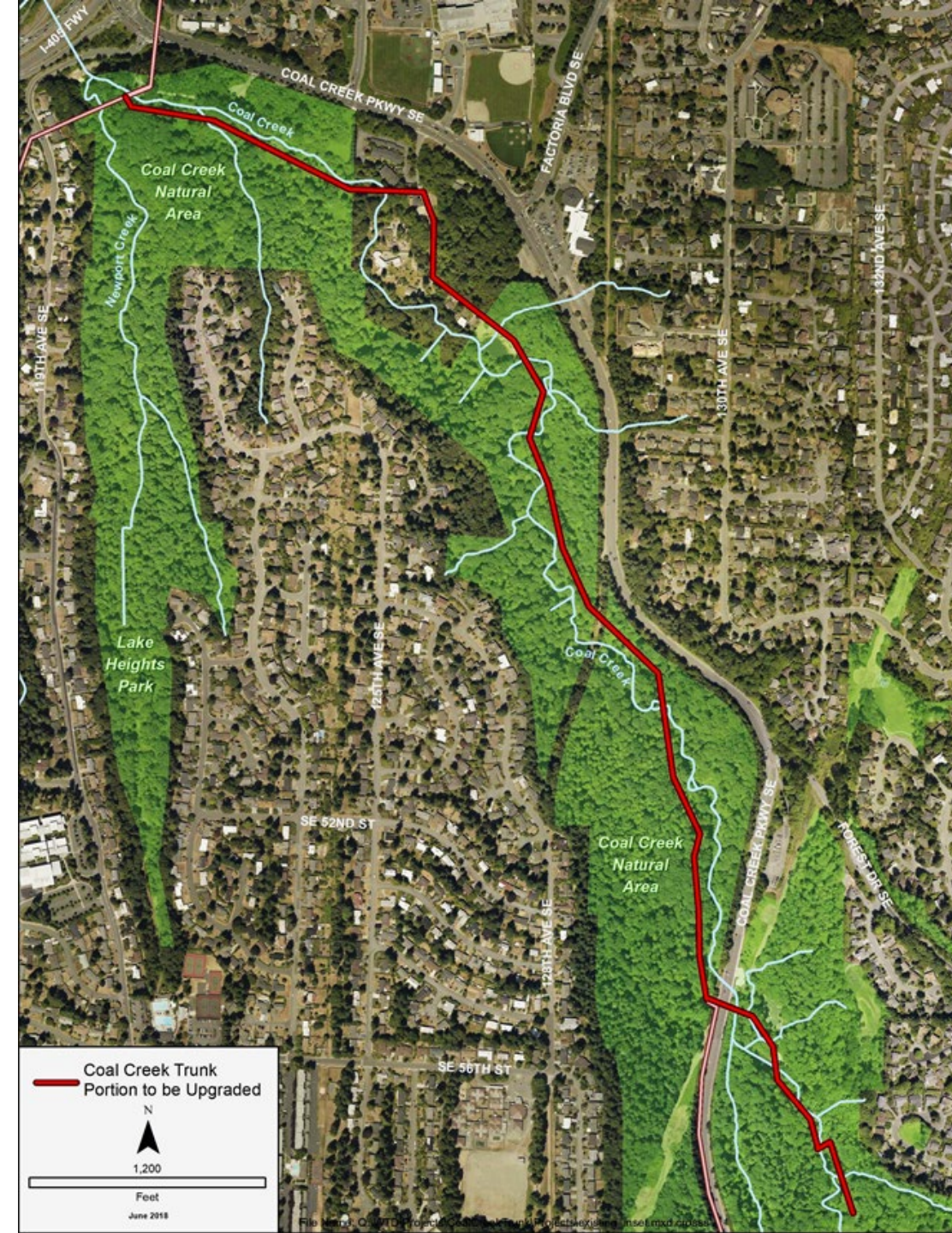
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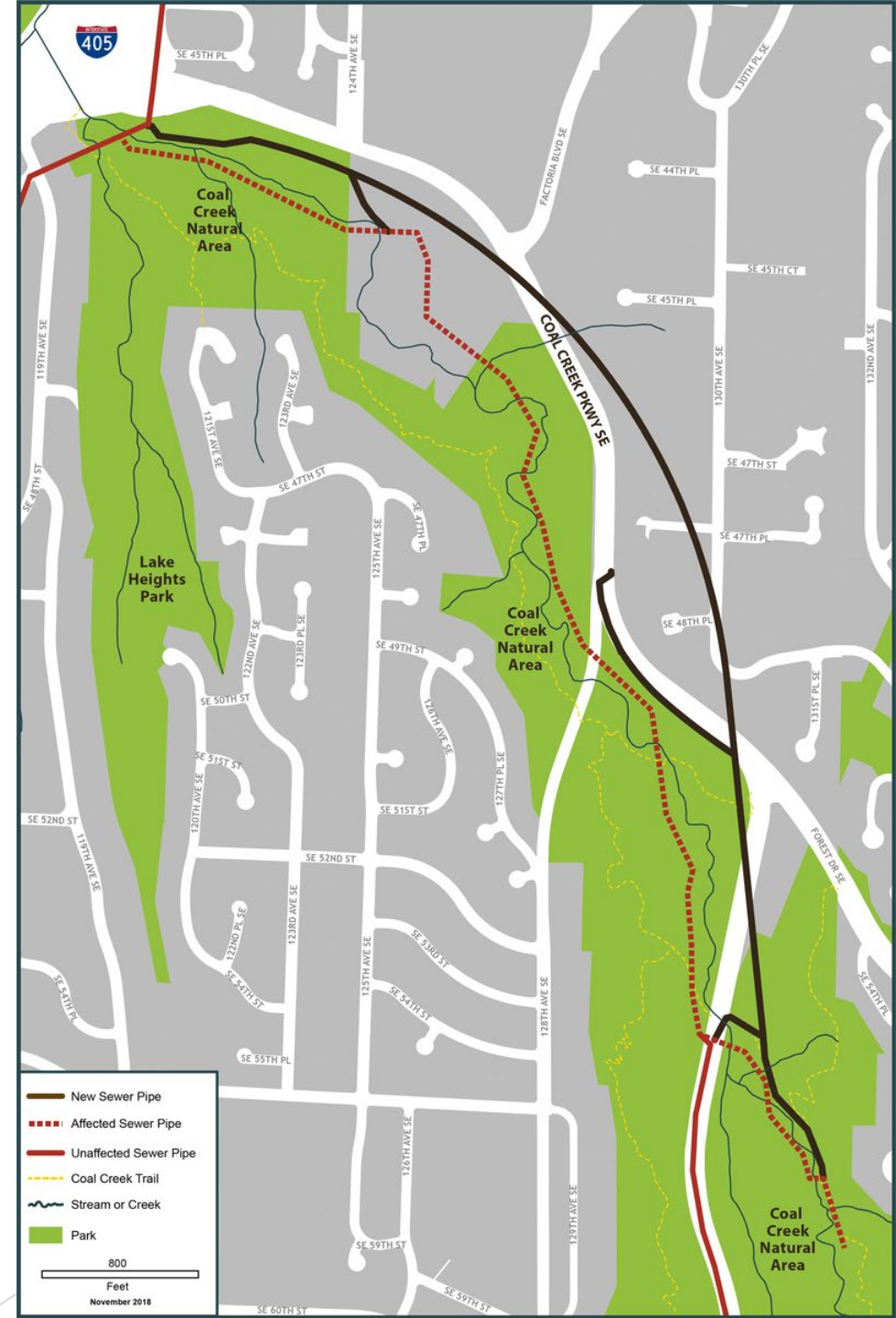
Project Background and Scope

- Built in the 1960s-1970s to serve Newcastle and part of Bellevue
- Gravity alignment followed stream corridor with numerous crossings of Coal Creek
- Increase capacity to convey the year 2060, 20-year peak flow criteria (18 MGD, up from 7 to 10 MGD) of the downstream half of Coal Creek Trunk
- Move most of the active pipe outside of the Coal Creek natural area

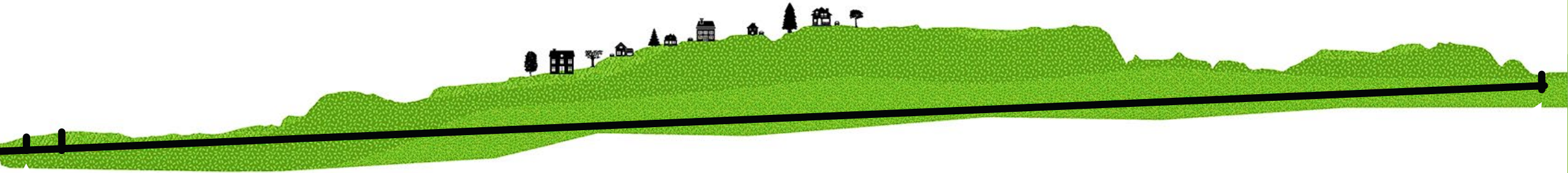


Project Description

- 8,000 feet of new pipe to replace the north Coal Creek Trunk
- 2,800 feet of pipe to connect the local system to the new pipe
- Creek restoration in areas where pipe segments are being removed from the streambed



Trenchless Construction



Much of the project will be installed using trenchless construction, both Direct Steerable Pipe Thrusting (Direct Pipe TM or DSPT) and microtunneling

DSPT Construction Sequence

- Build entry pit
- Launch Tunnel Boring Machine (TBM) from entry pit
- TBM removes soil and installs steel casing segments as it tunnels forward
- Excavated materials are hauled off-site
- After TBM is finished, it is removed at the exit pit
- A carrier pipe is installed inside the steel casing

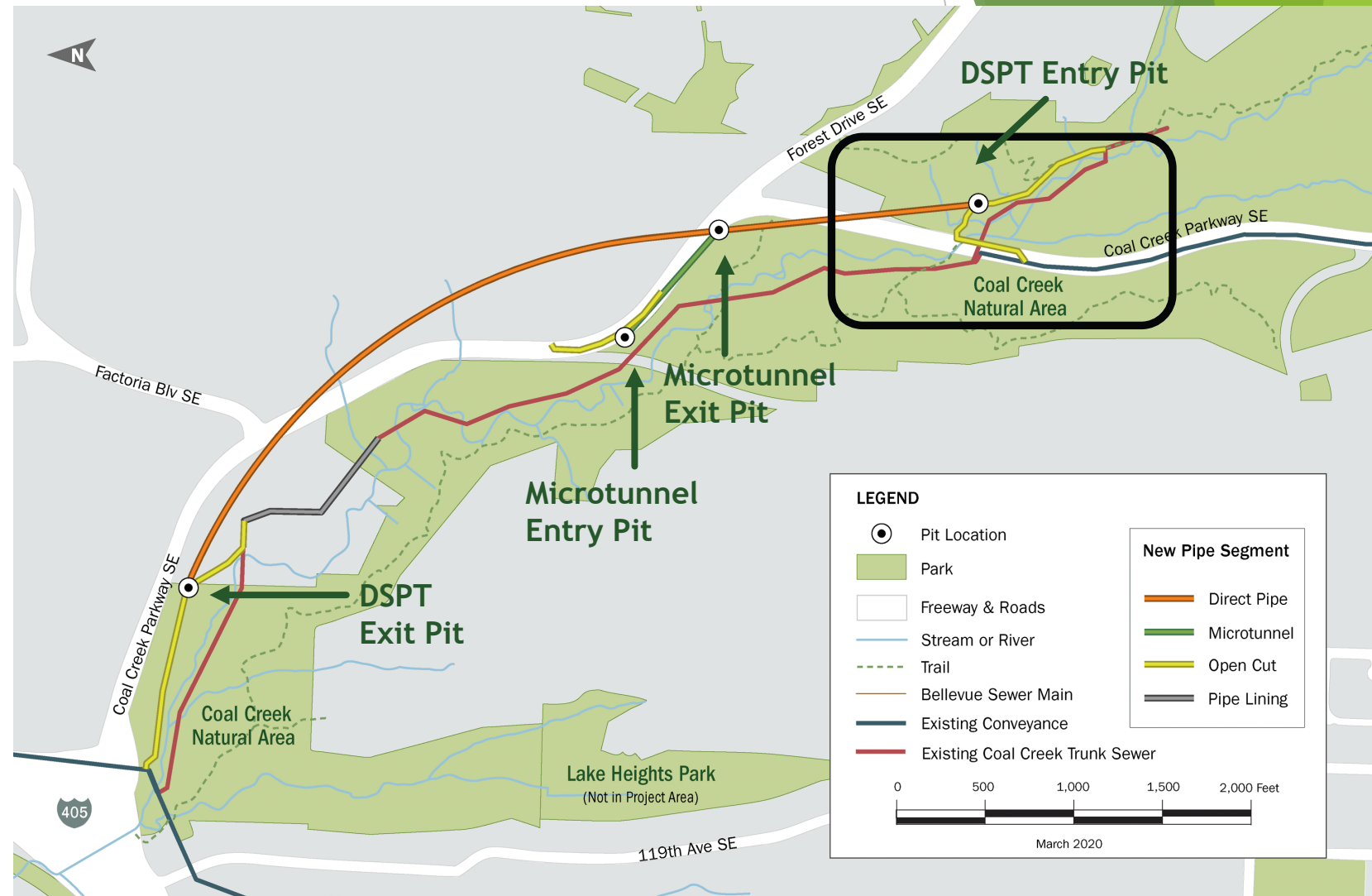




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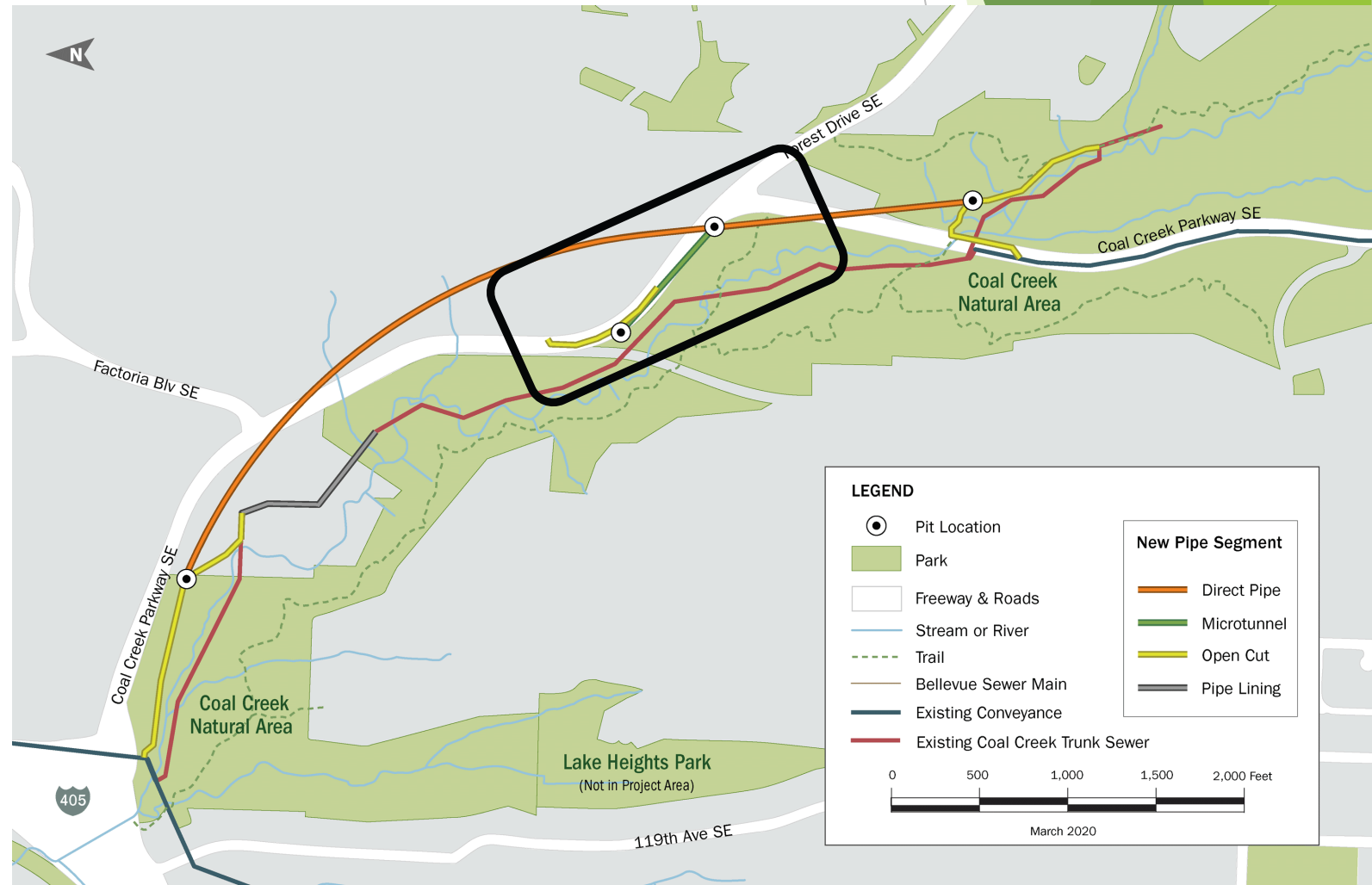
South Work Area

- Entry point for tunneling at Upper West Trailhead
- Pipe connection in Coal Creek Parkway to South Trunk
- Some open cut work along trail



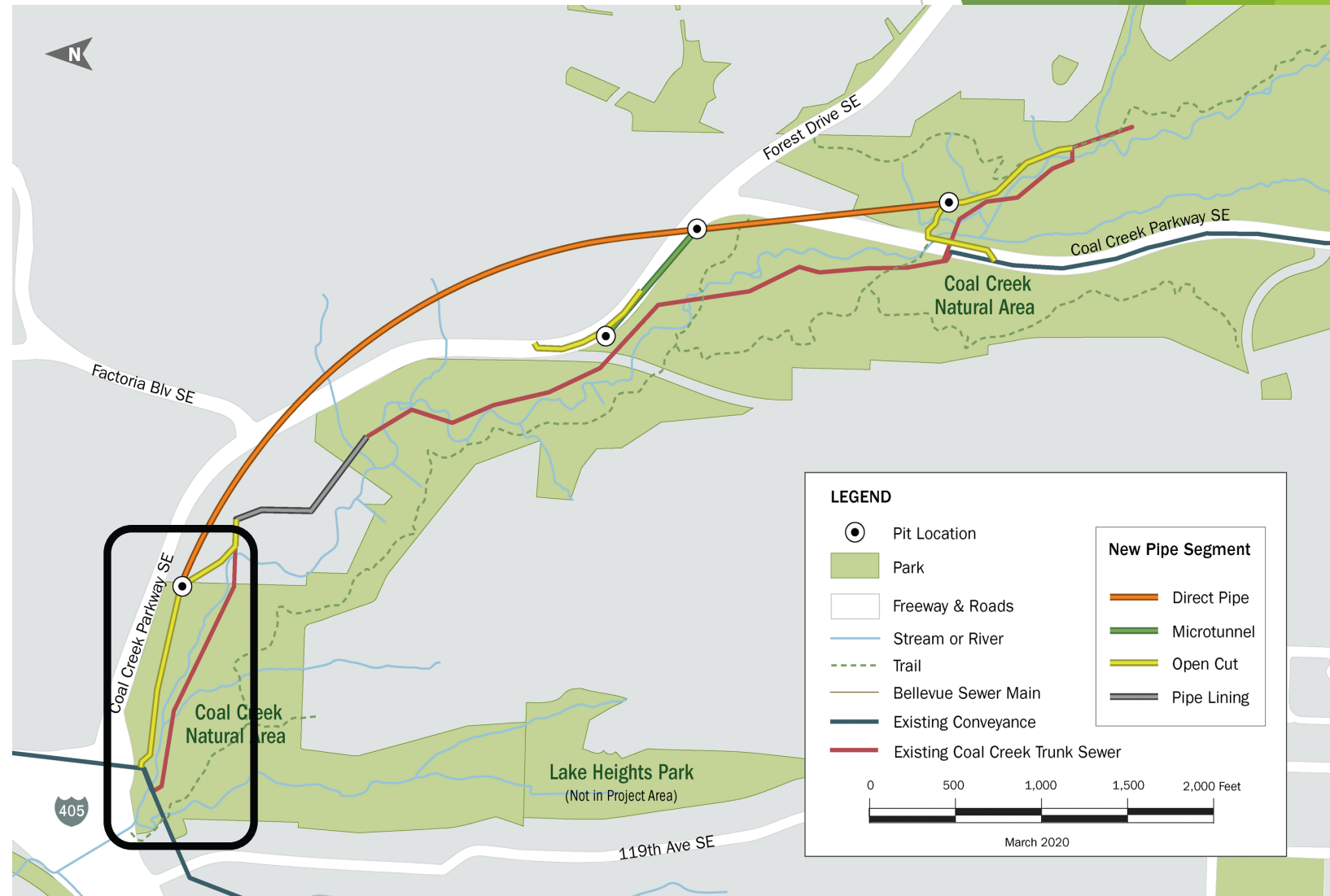
Central: City of Bellevue Connections

- Pipe installed underground by microtunneling
- Some open cut trenching in Coal Creek Parkway



North Work Area

- Install exit pit
- Connection to the East Side Interceptor using open cut



Restoration Benefits

- Moves pipeline away from Coal Creek, where the pipe is at risk from scouring during high flows
- Minimizes future risk of pipe destabilization and rupture



2007 (above)
2015 (left)

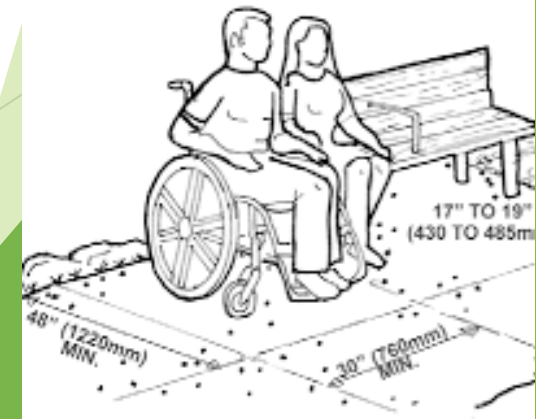


Sustainability

- Obtain Salmon Safe certification
- Trailhead area restoration includes restoring pavement and parking stalls and returning green stormwater features and native plants
- Re-use landscaping materials on other City of Bellevue sites
- Host community plant salvage events

Equity

- Meet language needs (translating materials and presentations; providing American Sign Language interpreters for community meetings)
- Support internships (two in 2019, one in 2021)
- Support youth employment with agreement for City of Bellevue's Well-KEPT ((Kids Environmental Project Training) Program to build trail detour
- Conduct focused outreach to the disability community on accessibility improvements
- Share accessibility ideas and feedback with employees, jurisdictions, and community groups and organizations
- Restore trailhead area for better access for maintenance and people with disabilities

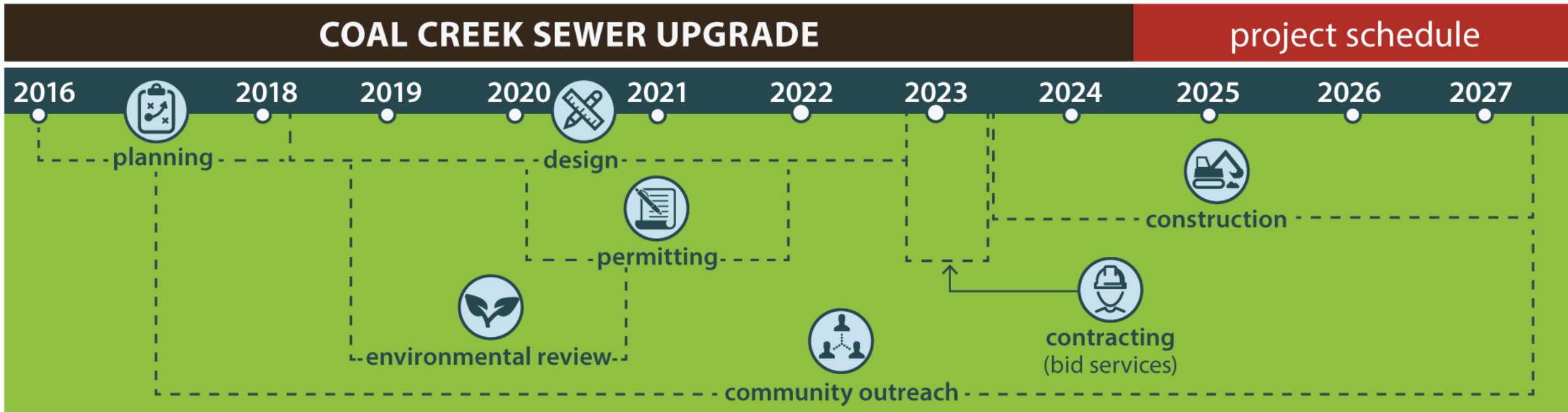


Project Budget

- Estimated total project budget (escalated): \$132 million
- Funded through WTD Capital program
- No Federal or State Loans

Current Status

- Working on 90% design (concurrent with permitting and community outreach)
- Anticipate construction to begin in early 2023 and be complete in 2027



Thank you!

Questions?

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