



## **King County**

Department of Natural Resources and Parks

**Wastewater Treatment Division**

King Street Center, KSC-NR-0505

201 South Jackson Street

Seattle, WA 98104

### **Environmental Checklist**

**for the**

# **King County Wastewater Treatment Division Coal Creek Trunk Upgrade Project**

January 2021

Prepared in compliance with the State Environmental Policy Act (SEPA) (RCW 43.21C), the SEPA Rules (WAC 197-11), and Chapter 20.44 King County Code, implementing SEPA in King County procedures.

This information is available in accessible formats upon request at  
206-477-5371 (voice) or 711 (TTY).

**ENVIRONMENTAL CHECKLIST****A. BACKGROUND****1. Name of proposed project, if applicable:**

Coal Creek Trunk Upgrade Project

**2. Name of applicant:**

King County Wastewater Treatment Division (WTD),  
Department of Natural Resources and Parks

**3. Address and phone number of applicant and contact person:**

King County Wastewater Treatment Division  
KSC-NR-5500  
201 S Jackson Street  
Seattle, WA 98104-3855

CONTACT: Jacob Sheppard, Environmental Planner  
Phone: (206) 477-5395  
Email: jacob.sheppard@kingcounty.gov

**4. Date checklist prepared:**

January 8, 2021

**5. Agency requesting checklist:**

King County Department of Natural Resources and Parks – Wastewater Treatment  
Division

**6. Proposed timing or schedule (including phasing, if applicable):**

Construction is anticipated from 2022 through 2027. The County will install the new sewer pipe first, and decommission the existing pipe once the new pipe is in service. The County will complete the restoration and enhancement of Coal Creek at the end of the project. Some wetlands mitigation may occur early in the project.

**7. Do you have any plans for future additions, expansions, or further activity related to or connected with this proposal? If yes, explain.**

There are no other future additions, expansions, or further activity related to or connected with the proposed project at this time. The County will continue to regularly monitor both the decommissioned existing pipe and the new pipe after

construction. If future monitoring indicates that the decommissioned pipe or the new pipe may pose a risk to the environment or human health and safety, the County will coordinate with the appropriate agencies at that time to address the risk.

**8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

The following reports have been prepared:

- Coal Creek Trunk Upgrade Phase 1 Project – Critical Areas, prepared by CH2M Hill on behalf of King County WTD (April 2017)
- Coal Creek Trunk Upgrade Phase 1 Project – Environmental Conditions Desktop Study, prepared by CH2M Hill Engineers, Inc. (CH2M) on behalf of King County WTD (April 2017)
- Coal Creek Trunk Upgrade Phase 1 Project – Hazardous Materials Corridor Assessment Desktop Study, prepared by CH2M on behalf of King County WTD (April 2017)
- Coal Creek Trunk Upgrade Phase 1 Project – Geotechnical Desktop Study, prepared by Shannon & Wilson on behalf of King County WTD (2017)
- Draft Geotechnical Data Report, prepared by Shannon & Wilson on behalf of King County WTD (October 2018)
- Draft Geotechnical Design Memorandum, prepared by Shannon & Wilson on behalf of King County WTD (April 2019)
- Mitigation Opportunities Report – Coal Creek Trunk Upgrade Phase 2, prepared by CH2M on behalf of King County WTD (July 2019)
- Cultural Resources Assessment, prepared by Environmental Science Associates on behalf of King County WTD (December 2019)
- Biological Evaluation, prepared by CH2M on behalf of King County WTD (May 2020)
- Arborist Report, prepared by CH2M on behalf of King County WTD (December 2020)
- Critical Areas Report, prepared by CH2M on behalf of King County WTD (December 2020)

The following reports are currently being prepared:

- Acoustic Assessment Memorandum
- Drainage Report
- Hydraulic Analysis Memorandum

**9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

The City of Bellevue (City) also has several projects pending in areas that overlap with this project's work limits, as shown in **Table 1**.<sup>1</sup>

**Table 1: City of Bellevue Overlapping Pending Projects**

City Permit No.	Project Name	Location	Description
19 131723 UE 19 131695 GD 19 131760 BW 20 101682 BE 19 131755 BH 18 120487 LD 18 120495 LO 19 120818 LS	Basel Newport Townhomes	King County Parcel No. 1624059144  12855 Coal Creek Pkwy SE Bellevue, WA 98006	A multifamily project that includes approximately 58 townhouse-style condos with a private road connecting all units and common park areas.  This property is immediately adjacent to the proposed project work limits at the intersection of 125th Ave SE and Coal Creek Pkwy SE.
20 104262 GB 20 104294 BW 19 131636 LO	Coal Creek Trail Addition Project	King County Parcel No. 2124059001  5199 Forest Dr SE Bellevue, WA 98006	Bellevue Parks is constructing an 840-linear-foot and 4-foot-wide, soft-surfaced recreational trail with a 30-foot-long pedestrian bridge and 80 linear feet of stairs.  The area of construction is adjacent to project work limits along Forest Drive SE and on the same overall Bellevue Parks parcel as the proposed project actions along the spur trail at the Red Cedar (Upper West Coal Creek) Trailhead.
20 108243 TJ	MCI Metro	King County Parcel No. 9559500080  4515 125th Ave SE - Unit 204 Bellevue, WA	Mastec North America Inc will install 901 linear feet of HPDE conduit, vault, and pull fiber cable in the right-of-way of Coal Creek Parkway SE using directional boring.  This proposal overlaps with the Woodsong Condominiums property, where the project proposes pipe installation and restoration actions.

<sup>1</sup> City of Bellevue. 2020. All Permit Data (1988-Present). Via <https://bellevue.data.socrata.com/Economic-Growth-and-Competitiveness/All-Permit-Data-1998-Present-/qtxf-p98a>, accessed April 29,2020.

**10. List any government approvals or permits that will be needed for your proposal, if known.**

**Table 2** lists the government approvals or permits needed for the project:

**Table 2: Project Approvals/Permits**

<b>Entity</b>	<b>Permit/Approval</b>
<b>Federal</b>	
U.S. Army Corps of Engineers	Clean Water Act (CWA) Section 404 Permit
U.S. Fish and Wildlife and NOAA Fisheries	Endangered Species Act Section 7 Formal Consultation
<b>State</b>	
Department of Archeology and Historic Preservation	National Historic Preservation Act Section 106 review
Washington State Department of Ecology	<ul style="list-style-type: none"> <li>• CWA Section 401 Water Quality Certification</li> <li>• Coastal Zone Management Act Consistency</li> <li>• NPDES Construction Stormwater Permit</li> </ul>
Washington Department of Fish and Wildlife	Hydraulic Project Approval
<b>Local</b>	
King County	<ul style="list-style-type: none"> <li>• SEPA Determination</li> <li>• Construction Dewatering Discharge Authorization</li> </ul>
City of Bellevue	<ul style="list-style-type: none"> <li>• Conditional Use Permit</li> <li>• Critical Areas Land Use Permit</li> <li>• Clearing and Grading Permit</li> <li>• Building Permit</li> <li>• Shoring Permit</li> <li>• Noise Permit</li> <li>• Right-of-Way Street Permit</li> <li>• Utility Side Sewer Permit</li> <li>• Utility Developer Extension Agreement</li> <li>• Parks Special Use Permit</li> </ul>

**11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.**

King County identified a need to increase the capacity of the north segment of the Coal Creek Trunk sewer pipe in Bellevue, WA, which is currently too small to convey existing or future peak flows. The County identified the need to increase the capacity of this part of the regional wastewater system in its 2015 Regional Needs Assessment.<sup>2</sup> As of 2010, surcharging or overflowing could be expected to occur at a greater than 50 percent probability in any given year. When complete, this project will provide the Coal Creek Trunk with the capacity to convey the projected 20-year peak wastewater flows through the year 2060.

The existing Coal Creek Trunk pipe collects sewage from the City sewer laterals and the Coal Creek Utility District's Olympus Lift Station. Flows are conveyed to the King County Eastside Interceptor (ESI) pipe, which conveys flows to the King County South Treatment Plant in Renton, WA. The County proposes to replace the north segment of the existing Coal Creek Trunk with a new pipe. The new pipe will follow an arc north and west, from the vicinity of the City of Bellevue Parks' Red Cedar (Upper West Coal Creek) Trailhead to the County's ESI sewer pipe near 119th Avenue SE and Coal Creek Parkway SE. It will be installed below ground using trenchless methods where feasible, and open-cut methods where ground conditions or other site constraints are unsuitable. To continue collecting local flows, the County also proposes to provide a combination of new local connections and appropriately resized existing connections.

Major project elements are listed below:

- Installing approximately 6,600 cumulative linear feet of new County and City lateral pipe segments using trenchless methods
- Installing approximately 4,000 linear feet of new County and City lateral pipe segments using open-cut methods
- Installing about 32 new maintenance holes (MH) along new County and City lateral pipe segments
- Decommissioning 20 MHs through gravel fill and/or concrete plugs, seven of which the County will also remove the concrete cones above the surface before filling – while most of these MHs are within the project impact area discussed in this checklist, a few will be in areas of the Coal Creek Natural Area that are otherwise not affected by project activities
- Removing 365 linear feet of existing County and City lateral pipe segments below and adjacent to Coal Creek
- Creating and enhancing wetlands and wetland buffers for mitigation
- Restoring and enhancing streams

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<sup>2</sup> King County. 2015. Regional Needs Assessment, Conveyance System Improvement Program. King County Department of Natural Resources and Parks, Wastewater Treatment Division. May.

- Constructing temporary and permanent parking areas
- Converting a portion of a trail to an ADA-compliant trail connection and maintenance vehicle gravel road
- Installing a retaining wall along the converted trail in a steep slope area

The majority of the new pipe – approximately 5,300 linear feet – will be installed using the Direct Pipe® trenchless method, which relies on a small tunnel-boring machine that creates a precisely guided borehole along the pipe alignment. The Direct Pipe alignment is shown on **Figure 1** as a smoothly arcing blue line. Most of the Direct Pipe segment will be deep underground, and pipe installation activities will not be detectable at the surface. However, activities to support Direct Pipe installation will have temporary impacts at the entry and exit points. The County will install the Direct Pipe segment starting near the upstream end of the project, in the Spur area. The Direct Pipe segment will end at the eastern boundary of the ESI Connection area. Construction activities in these two areas are described in further detail below.

In addition to the Direct Pipe segment discussed above, project activities will occur in the following seven above-ground areas, the locations of which are described further in Section A.12 below and shown as “Project Locations” in **Figure 1**:

- ESI Connection
- Woodsong Condominiums (Condos)
- 125th Avenue SE
- Microtunnel
- Forest Drive SE
- South Trunk Connector
- Spur

#### ESI Connection

In this project area, the County will install approximately 1,100 linear feet of new sewer pipe, roughly parallel to Coal Creek Parkway SE, using open-cut methods. The downstream exit point of the Direct Pipe segment will be located at the eastern boundary of the ESI Connection area. The County will install a temporary receiving pit for the Direct Pipe tunnel-boring machine. Shoring for the pit may need to be installed using impact or vibratory pile driving methods. The County will install a new pipe using open-cut methods from the receiving pit to the ESI. The ESI crosses under Coal Creek just east of the upstream end of a culvert that carries Coal Creek under I-405. The existing Coal Creek Trunk connects to the ESI to the south of the stream; the new pipe will connect to the ESI north of the stream and thus avoid the need for a new stream crossing.

The western portion of the new pipe alignment in this area will follow an existing maintenance access road. The eastern portion of the alignment in this project area will run through an undeveloped area. Construction of the eastern portion of pipe in this project area, as well as the trenchless receiving pit, will require installing a temporary access road that will be removed upon project completion. The County will also install a temporary improved area adjacent to the receiving pit and Woodsong Condos in

order to provide construction staging and parking for condo residents during project construction.

Once the new pipe has been installed, the County will generally restore impacted areas to previous conditions, with the exception of approximately four new MHs. Two of these MHs will be located in the existing maintenance access road, one will be located immediately adjacent to the Woodsong Condos parking lot, and one will be installed near an above-ground structure connected to the ESI.

Finally, the County will conduct extensive wetlands improvements in the ESI Connection project area. Consistent with the County Executive's Clean Water, Healthy Habitat initiative, the County recognizes the opportunity the Coal Creek Trunk Upgrade Project presents to enhance habitat at a broader scale – the Coal Creek basin – rather than focusing solely on restoring directly affected areas. Much of this area currently consists of degraded wetlands and wetland buffer, as identified in Section B.3. Throughout this project area, the County will rehabilitate and enhance existing wetlands, and create new wetlands, with the goal of connecting small and degraded habitat reserves into a larger and better-functioning habitat complex.

#### Condos

In this project area, the County will install approximately 400 linear feet of new sewer pipe to collect and convey local flows to the new Coal Creek Trunk pipe, using open-cut methods. The pipe will run roughly northwest across the Woodsong Condos property. Part of the new pipe will be installed near Coal Creek. Similar to the ESI Connection area described above, this project area also provides additional opportunities for habitat enhancement. Once the new pipe is in service, the County will install softened bank stabilization measures including large woody material (LWM) and fabric-encapsulated soil lifts (FESL) on the stream bank, and rehabilitate and enhance stream habitat adjacent to the condos. The County will also remove a segment of the existing Coal Creek Trunk that crosses under Coal Creek at this location. Other than areas of habitat enhancement, most disturbed surfaces will be restored to pre-project conditions, with the exception of approximately four new MHs in improved (paved or landscaped) locations.

#### 125<sup>th</sup> Ave SE

In this project area, the County will slipline segments of the existing Trunk pipe, and install new pipe using open-cut methods, to create approximately 700 cumulative linear feet of new sewer line that will convey local flows to the new Coal Creek Trunk pipe. The pipe will generally run within the right-of-way of 125<sup>th</sup> Avenue SE and connect to the new local line installed at the Condos location. The County will restore disturbed surfaces to pre-project conditions once construction in this area is complete.

#### Microtunnel

In this project area, parallel to and across Coal Creek Parkway SE just north of its intersection with Forest Drive SE, the County will install new local connections to the new Trunk pipe. These connections will be installed using a combination of

approximately 800 cumulative linear feet of open-cut pipe and approximately 800 linear feet of microtunneling, a trenchless technology. Construction will require some changes to the final grade of the unimproved right of way on the west side of Coal Creek Parkway SE.

Construction equipment, supplies, and materials may also be staged near the Microtunnel work area, on an unimproved right-of-way corridor owned by Seattle Public Utilities, during project construction.

#### Forest Drive SE

In this project area, the County will improve an existing parking area adjacent to Forest Drive SE, in order to accommodate trail users in the Coal Creek Natural Area while the Coal Creek Trunk Upgrade Project is in construction.

#### South Trunk Connector

In this project area, the County will use open-cut methods to install approximately 700 linear feet of new pipe connecting the new north segment of Coal Creek Trunk with the existing south segment, which runs parallel to Coal Creek Parkway SE on the west side of the road in this area. This new pipe will cross the road and run under the Coal Creek Natural Area trailhead to connect to the new Coal Creek Trunk.

#### Spur

This project area will be the upstream end of the Direct Pipe trenchless pipe segment. The County will use the existing trailhead parking lot at this location to support the Direct Pipe operation, which will require a launch pit, supporting equipment such as controls and a drilling fluid management plant, and pipe staging areas.

In this project area, the County will also use open-cut methods to install approximately 900 linear feet of new pipe that will convey flows from local lines to the new Coal Creek Trunk. The existing pipes in this area cross under Coal Creek four times; the new pipe will not cross the stream. The new pipe will run on the east side of the stream, under the trailhead parking lot, an existing maintenance access road, and an existing foot trail.

Safe installation and future maintenance of the pipe will require the stabilization of a steep slope along a small segment of the pipe alignment. In this segment, the County will install a retaining wall. To allow for infrequent maintenance access in the future, the County will restore the surface above the new pipe with a gravel road, which will appear as an extension of the existing maintenance road from the trailhead parking lot. This new gravel road will be compliant with Americans with Disabilities Act (ADA) standards, and it will be integrated into the existing foot trail network. The County will install MHs within the existing and new gravel path. At project completion, the County will restore the trailhead parking lot to conditions substantially similar to existing conditions.

Finally, the Spur project area provides another substantive opportunity for habitat

enhancement at a basin scale, consistent with the Clean Water, Healthy Habitat initiative. Pipe installation in this area will require temporary habitat impacts, but once pipe installation is complete, the County will use the site restoration process as a chance to create new stream habitat and physically remove segments of the no longer active existing pipe. A short segment of the new pipe will require protection from future shifts in the stream channel to prevent damage to both the pipe and the ecosystem. To provide this protection, the County will use soft bank stabilization measures, including large woody materials and fabric-encapsulated soil lifts, measures which will support natural ecosystem processes as much as possible. The County will also remove existing sewer pipes in the area, including two stream crossings; create a side channel for the stream; and install numerous pieces of large woody material, to provide additional habitat complexity for fish and other aquatic life. Further, the County will restore a tributary to Coal Creek in this project area to allow for upstream fish passage.

The County will restore and enhance all natural areas affected by construction by planting site-appropriate native vegetation, removing non-native invasive plants, and maintaining planted areas for up to 10 years after project completion to support successful plant establishment.

- 12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The project is located in the southwestern portion of Bellevue, in the neighborhoods of Newport and Somerset. The upstream (southern) end of the project is approximately 900 feet southeast of the Red Cedar (Upper West Coal Creek) Trailhead in the Coal Creek Natural Area, on the east side of Coal Creek Parkway SE. The project generally follows Coal Creek Parkway SE until reaching the downstream (northern) end at the King County Dirt Trail trailhead. See **Figure 1** for a site map of the project area.

The project is located within the Coal Creek Basin (6th Field Hydrologic Unit Code 17110012) and within the Coal Creek Basin of Water Resource Inventory Area (WRIA) 8, the Cedar/Sammamish Watershed. The project is in Sections 16, 21, and 22 in Township 24 North, Range 5 East, Willamette Meridian.

By using trenchless installation methods, the project will minimize the amount of above-ground construction disturbance. The location of the trenchless Direct Pipe segment, which accounts for the majority of the new pipe to be installed, is shown as a smoothly arcing blue line on **Figure 1**. Above-ground work, including mitigation actions, will occur in seven separate project locations, contained mostly within the

Coal Creek Natural Area and existing roadways. The seven project locations, which are described further in Section A.12 above and shown in **Figure 1**, are listed below from north to south:

- ESI Connection
- Woodsong Condominiums (Condos)
- 125th Avenue SE
- Microtunnel
- Forest Drive SE
- South Trunk Connector
- Spur

## B. ENVIRONMENTAL ELEMENTS

### 1. Earth

#### a. General description of the site

(circle one): Flat, rolling, hilly, steep slopes, mountainous,  
other: *moderate to high liquefaction risk*

The project area is generally hilly, and contains areas of steep slopes and areas with moderate to high liquefaction risk.

- ESI Connection: There is a moderate to high liquefaction risk largely throughout and steep slopes along roadway embankment. Also, there is a portion of mapped steep slope along the entrance from Coal Creek that is not considered to be a hazard based on field assessment of the fill material located there.
- Condos: moderate to high liquefaction risk
- 125th Avenue SE: moderate to high liquefaction risk
- Microtunnel: within City top-of-slope steep slope buffer and slightly within mapped steep slopes
- Forest Drive SE: none
- South Trunk Connector: The area is within a City top-of-slope steep slope buffer and slightly within mapped steep slopes. Coal Creek Parkway SE is also mapped as a steep slope along the roadway, but is not considered to be a hazard based on field assessment of the fill material.
- Spur: largely outside geologic hazard areas, except for the southernmost end where the work limits extend partially into the bottom of mapped steep slope areas

#### b. What is the steepest slope on the site? (approximate percent slope)?

Slopes greater than 40 percent are present.

- c. **What general types of soils are found on the site? (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

Surficial soils have been mapped and classified by the Natural Resources Conservation Service (NRCS).<sup>3</sup> Soils in the study area are dominated by Alderwood and Kitsap soils, very steep, followed by Norma sandy loam and Alderwood gravelly sandy loam soils. Alderwood and Kitsap soils, very steep, are mapped over the majority of the study area within the undeveloped Coal Creek Natural Area. These soils are described by the NRCS as moderately well drained with parent material composed of basal till with some volcanic ash.

NRCS classifies several small areas of existing residential development or park area as prime farmland. These include the area of Norma sandy loam (prime farmland if drained); Alderwood gravelly sandy loam, 8 to 15 percent slopes (prime farmland if irrigated); and Alderwood gravelly sandy loam, 15 to 30 percent slopes (farmland of statewide importance). Norma sandy loam is classified as hydric and covers the area occupied by one of Bellevue's sediment ponds and existing mitigation site. The project includes some excavation, but all temporarily disturbed areas will be decompacted as needed and replanted. The area is also unlikely to be converted for agriculture, as it is designated as a protected natural area.

- d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

Unstable soils are known and expected to occur throughout the study area. The study area overlaps with mapped landslide hazard, erosion hazard, and liquefaction hazard areas. Stream bank erosion has also occurred along Coal Creek in numerous locations and is expected to continue as part of the natural stream channel function but also potentially affected by development (e.g., flashy stream flow due to increased impervious surface runoff).

- e. **Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.**

**Table 3** provides a summary of earthwork volumes and areas proposed in uplands (outside of wetlands and streams). Quantities shown are approximate and subject to change as project design continues.

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<sup>3</sup> Natural Resources Conservation Service (NRCS). 2018. Web Soil Survey – Coal Creek Natural Area. U.S. Department of Agriculture.

**Table 3: Upland earthwork summary (approximate quantities)**

Activity	Type	Cut (cubic yards)	Fill (cubic yards)	Fill source	Impact area (square feet)	Duration
<b>Construction Access and Staging</b>						
ESI Connection	Grading	210	5	Native backfill	5,200	Permanent
Microtunnel	Grading	1,850	90	Native backfill	18,400	Permanent
Spur	Grading	283	258	Native backfill, imported clean materials for permanent maintenance road surface	8,556	Permanent
<b>Total</b>		<b>2,343</b>	<b>353</b>		<b>32,156</b>	
<b>Direct Pipe (DP) earthwork (does not include subsurface tunneling)</b>						
DP launch pit (Spur)	Excavation	1,250	1,240	Native	2,800	Temporary
DP receive pit (ESI Connection)	Excavation	850	830	Native	1,000	Temporary
<b>Total</b>		<b>2,100</b>	<b>2,070</b>		<b>3,800</b>	
<b>Pipe installation trench</b>						
Trunk installation (ESI Connection)	Excavation and fill	4,420	4,420	Gravel backfill	6,410	Temporary
City lateral installation (Condos)	Excavation and fill	380	380	Gravel backfill	1,020	Temporary
City laterals installation (125th Avenue SE)	Excavation and fill	210	210	Gravel backfill	620	Temporary
City laterals installation (Microtunnel)	Excavation and fill	810	810	Gravel backfill	2,010	Temporary
Trunk Connector installation (South Trunk Connector)	Excavation and fill	900	900	Gravel backfill	2,670	Temporary
Trunk installation (Spur)	Excavation and fill	1,750	1,750	Gravel backfill	3,810	Temporary
<b>Total</b>		<b>8,470</b>	<b>8,470</b>		<b>16,540</b>	
<b>Retaining wall installation - Spur</b>						
<b>Total</b>	<b>Grading</b>	<b>472</b>	<b>404</b>	<b>Native backfill</b>	<b>840</b>	<b>Permanent</b>

<b>Activity</b>	<b>Type</b>	<b>Cut (cubic yards)</b>	<b>Fill (cubic yards)</b>	<b>Fill source</b>	<b>Impact area (square feet)</b>	<b>Duration</b>
<b>Microtunnel shaft earthwork (does not include subsurface tunneling)</b>						
Microtunnel launch shaft	Excavation	470	450	Native	700	Temporary
Microtunnel receiving shaft	Excavation	450	380	Native	180	Temporary
<b>Total</b>		<b>920</b>	<b>830</b>		<b>880</b>	
<b>Wetland creation</b>						
<b>Total</b>	<b>Grading</b>	<b>2,100</b>	<b>0</b>	<b>Not applicable</b>	<b>37,106</b>	<b>Permanent</b>

**f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

Earthwork activity has the potential to cause localized slope failure or stream bank erosion. However, the Project will use approved erosion prevention and control best management practices (BMP) based on geotechnical and stream engineering recommendations to avoid and minimize erosion. Upon project completion, there will be a slight decrease in the likelihood of erosion in the Spur and Condo areas due to stabilization measures installed during the project, with no changes in the likelihood of erosion elsewhere.

**g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

About 26 percent of the five temporary discharge areas within the work limits consists of existing impervious surfaces (approximately 200,000 square feet). Proposed actions will increase impervious surfaces site-wide by about two percent (approximately +18,000 square feet) and may remove less than one percent of existing impervious surfaces at Forest Drive SE (approximately - 1,150 square feet).

New impervious surfaces may be installed at Forest Drive SE to provide replacement parking while the Red Cedar trailhead is closed; and they will be installed on the proposed gravel road and trail at the Spur, in a small portion of the ESI Connection, and in various locations for the aboveground portions of the new MHs.

**h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

Temporary erosion and sedimentation control (TESC) measures will be employed throughout project construction, including prior to all clearing, excavation, filling, grading, and other soil-disturbing activities in the project area. These control measures will be identified in the project plans and construction specifications, and they will be described in detail and updated throughout construction in the County contractor's Stormwater Pollution Prevention Plan (SWPPP). In addition, the project will comply with additional conditions from the City of Bellevue, Ecology, and other permitting agencies.

During design, licensed geotechnical engineers will review and provide direction on project design to reduce or control potential erosion and other impacts to the earth. A hydraulic analysis will also be prepared for each impacted stream to understand and manage the risk for stream bank erosion.

During construction, a Certified Erosion and Sediment Control Lead will be responsible at all times for installing and maintaining BMPs, and a licensed

geotechnical engineer will provide ongoing oversight and recommendations to manage unstable soils.

Typical TESC BMPs that may be used include installing filter fabric fences and other sediment barriers, placing silt traps in storm drain inlets, covering soil stockpiles and exposed soils, and using settling facilities to prevent sediment from leaving the site.

Additional best management practices (BMPs) and other measures could include the following:

- Designation of personnel to inspect and maintain temporary erosion and sediment control measures
- Use of appropriate means such as stabilized entrances and wheel washes to minimize tracking of sediment onto roadways by construction vehicles
- Regular street cleaning for mud and dust control
- Disposing of excess excavated soil at an approved disposal site as soon as practical
- Restoration of disturbed areas by repaving or replanting as soon as practical after construction is completed

## 2. Air

- a. **What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.**

Construction will involve temporary, mobile source air emissions (NO<sub>x</sub>, VOC, CO, PM<sub>10</sub>, PM<sub>2.5</sub>), including diesel exhaust from construction equipment and dust generated by earth-moving activities. The exhaust emissions will be intermittent and spread across the project area. They are not expected to affect attainment of air quality standards in the project area.

Construction may also generate dust during demolition, excavation, and materials hauling.

Once completed, occasional faint odors may be detectable in the immediate vicinity of some maintenance hole locations along the new pipe.

See **Appendix A** for King County's greenhouse gas emissions worksheet.

- b. **Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

There are no off-site sources of emissions or odors that will affect the project during construction or operation.

c. **Proposed measures to reduce or control emissions or other impacts to air, if any:**

During construction, BMPs will be implemented to minimize dust and other air quality impacts, including:

- Wetting exposed soils
- Providing wheel wash stations
- Covering loads
- Maintaining machinery in good mechanical condition to minimize exhaust emissions
- Requiring contractors to reduce idling time of equipment and vehicles, and encouraging the use of use newer construction equipment or equipment with add-on emission controls

3. **Water**

a. **Surface Water:**

- 1) **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, or wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

See **Figure 2** for an overview of surface water bodies (streams and wetlands) in the project area. Six streams have been identified in or close to the study area. These streams include Coal Creek, four tributaries to Coal Creek (Tributary 0268, Tributary 0272, Tributary 1, and Tributary 2), and one non-tributary stream (Stream 1). Coal Creek and its tributaries eventually flow into Lake Washington, while Stream 1 infiltrates before reaching Coal Creek. Coal Creek and its tributaries are all Type F (containing salmonids such as salmon, trout, and similar species, or habitat suitable for salmonids). Only Coal Creek and Tributary 1 will be directly affected by the project. The other streams will have buffer impacts but no direct stream impacts. The Project will also avoid disturbing piped stream segments, including the culverts for Tributary 0272 and Tributary 2 at the Spur project area.

Twelve wetlands are located either in or adjacent to the study area, referred to in project documentation as Wetlands 2, A, A1, B, D/E, F, G, H, I, J, Potential Wetland L/Anna's Pond, and Potential Wetland M. Of these, Wetlands A, D/E, H, I, and J will be impacted directly. Their buffers, along with the buffers for Wetlands A1, B, and G, will also be impacted. No other wetland or associated buffer will be impacted.

- 2) **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

The project will require work in the following water bodies:

- Coal Creek
- Tributary 1
- Wetland A
- Wetland D/E
- Wetland H
- Wetland I
- Wetland J

Temporary earthwork will be needed for construction access and staging, open-cut pipe installation at Wetland A, D/E, and J, as well as Coal Creek crossing pipe removals.

Permanent earthwork will be needed for the Tributary 1 relocation and Coal Creek restoration at the Condos and at the Spur. Stream restoration at the Spur will also impact Wetlands H and I. Wetland J will also be impacted by permanent grading for the ADA-compliant trail access and maintenance gravel road.

**Table 4** provides a summary of activities and impacts in wetlands and streams.

**Table 4: Earthwork summary in wetlands and streams (approximate quantities)**

Activity	Type	Cut (cubic yards)	Fill (cubic yards)	Fill source	Impact area (square feet)	Duration
<b>Construction access, staging, and pipe trenching</b>						
ESI Connection	Excavation, fill, and grading	1,967	1,940	Hog fuel with reinforced metal plates where feasible, quarry spalls or similar if needed	19,688	Temporary
Spur	Grading	7	5	Hog fuel with reinforced metal plates where feasible, quarry spalls or similar if needed	1,742	Temporary
<b>Total</b>		<b>1,974</b>	<b>1,945</b>		<b>21,430</b>	
<b>Pipe installation</b>						
ESI Connection – aboveground structures	Grading, pipe installation	0	15	Imported clean materials for access pad	261	Permanent
Spur – aboveground structures	Pipe installation	2	2	Pre-cast concrete for new maintenance hole	28	Permanent
<b>Total</b>		<b>2</b>	<b>17</b>		<b>289</b>	
<b>Restoration and mitigation of wetlands (beneficial impacts)</b>						
ESI Connection wetlands – permanent improvements	Excavation, fill, and grading	N/A*	N/A*	Mostly native fill, some clean imported materials	95,834	Permanent
ESI Connection wetlands – temporary installation impacts	Excavation, fill, and grading	N/A*	N/A*	Hog fuel with reinforced metal plates where feasible, quarry spalls or similar if needed	95,834	Temporary
Spur wetlands – permanent improvements	Excavation, fill, and grading	23	13	Mostly native fill, some clean imported materials	1,410	Permanent
Spur wetlands – temporary installation impacts	Excavation, fill, and grading	230	580	Hog fuel with reinforced metal plates where feasible, quarry spalls or similar if needed	6,527	Temporary
<b>Total</b>		<b>N/A*</b>	<b>N/A*</b>		<b>Permanent: 97,244 Temporary: 102,361</b>	

Activity	Type	Cut (cubic yards)	Fill (cubic yards)	Fill source	Impact area (square feet)	Duration
<b>Restoration and Mitigation of Streams (beneficial impacts)</b>						
Coal Creek (Condos) – permanent improvements	Excavation, fill, and grading	40	<1	<ul style="list-style-type: none"> <li>Streambed mix: clean, naturally occurring, water-rounded aggregates</li> <li>LWM structures: clean, coniferous wood, toe-key rock</li> <li>FESL structures: clean imported fill, biodegradable fabric, LWM as described above</li> </ul>	1,010	Permanent
Coal Creek (Condos) – temporary installation impacts	Excavation, fill, and grading	33	11	Aggregate material from established quarries	3,525	Temporary
Coal Creek (Spur) – permanent improvements	Excavation, fill, and grading	96	18	<ul style="list-style-type: none"> <li>Streambed mix: clean, imported, naturally occurring, water-rounded aggregates</li> <li>LWM structures: clean, coniferous wood, toe-key rock</li> <li>FESL structures: clean imported fill, biodegradable fabric, LWM as described above</li> </ul>	5,326	Permanent
Coal Creek (Spur) – temporary installation impacts	Excavation, fill, and grading	17	10	Aggregate material from established quarries	2,285	Temporary
Tributary 1 (@ Spur) – permanent improvements	Excavation, fill, and grading	10	50	Clean imported fill, naturally occurring water-rounded aggregates	750	Permanent
<b>Total</b>		<b>Permanent: 146 Temporary: 50</b>	<b>Permanent: 68 Temporary: 22</b>		<b>Permanent: 7,086 Temporary: 5,810</b>	

\*Excavation and fill quantities for beneficial wetlands improvements in the ESI Connection area have not been precisely calculated and are subject to change in the field to optimize wetland functions.

The project will also require work in City of Bellevue-designated wetland and stream buffers. Impact areas in buffers are shown in **Table 5**.

**Table 5. Project impacts in wetland and stream buffers**

<b>Buffer Group</b>	<b>Impact Area (square feet)</b>
Sewer Construction – Permanent Impacts	
Wetland Only	57
Stream Only	57
Combined Wetland and Stream	6,596
Construction – Temporary Impacts	
Wetland Only	27,417
Stream Only	15,720
Combined Wetland and Stream	52,793

- 3) **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

See **Table 4** for excavation and fill quantities, areas affected, and the source of fill materials.

- 4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

Temporary surface water diversions will be needed for proposed in-stream work at three locations: Coal Creek at the Condos, Coal Creek at the Spur, and Tributary 1 at the Spur.

During the proposed pipe installation, the affected reach of Tributary 1 will be temporarily isolated to allow for the extension of the Tributary 1 culvert under the trail. Through-flow will then continue unimpeded during construction. After pipe installation is completed, a new channel will be dug in upland about 10 feet north of the existing channel. When the new channel is ready, Tributary 1 flow will be diverted into the new channel, and the old channel will be filled.

For the pipe removal and stream restoration activities in Coal Creek at both the Condos and the Spur, the areas will be temporarily isolated prior to the start of in-water work. The contractor will build a diversion structure upstream that outlets downstream of the proposed work to allow

for through-flow that meets fish passage requirements while work occurs in the dry.

Temporary surface water diversions in Coal Creek will occur during the summer dry season. Modeled median flow rates during July and August are 0.5 cubic feet per second in Coal Creek at the Spur area, and 0.7 cubic feet per second in Coal Creek at the Condos area.

**5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

The project will occur partially within the 100-year floodplain for Coal Creek, at the ESI Connection, Condos, and Spur project areas. See **Figure 1** for the locations of each of these areas.

**6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

The project will not involve discharge of waste material to surface waters.

**b. Ground Water:**

**1) Will ground water be withdrawn, from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses, and approximate quantities withdrawn from the well. Will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

Groundwater is at or near the surface in many locations throughout the study area. This may include on the slopes, based on the occurrence of hillside seeps observed throughout the Coal Creek Natural Area. These seeps often occur where Kitsap silt loam soils are at the ground surface.

During construction, temporary dewatering wells will be needed in the trenches during open-cut pipe installation, at the direct pipe launching and receiving pits and at the microtunnel shafts. Dewatering rates will vary widely depending on location along the project alignment, season, and the specific construction methods chosen by the contractor. In areas of the project that require deep excavation for an extended period of time, the contractor will likely install dewatering systems that withdraw groundwater at rates between 20 and 100 gallons per minute. Over the entire duration of the project, an estimated 70 million gallons of groundwater may be withdrawn.

Groundwater from dewatering wells may be infiltrated in nearby upland areas. If infiltration is not feasible, the groundwater may be discharged to stormwater systems, sewer systems, or directly to sensitive aquatic areas (wetlands or streams) after treatment (e.g., sedimentation tanks or similar) in accordance with water quality regulations, permit conditions, and best practices.

The project does not involve any other wells for drinking water or other water supply or discharge of waste material to groundwater.

- 2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

The project does not include discharge of waste material to groundwater.

c. **Water Runoff (including storm water):**

- 1) **Describe source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

During construction, temporarily cleared and temporarily filled areas may increase rates of runoff in the immediate area during storm events, including potential runoff into nearby streams and wetlands. Construction stormwater will be managed according to all applicable environmental permit conditions, using storm water BMPs such as those described below in Section B.3.d, to avoid and minimize discharge of pollutants to surface waters. As much as is feasible, stormwater and groundwater from dewatering operations will be discharged into the Coal Creek basin rather than into the sanitary sewer system.

When the project is completed, stormwater run-off quantities and patterns will largely be similar to existing conditions, with the exception of small areas with new impervious surface at Forest Drive SE, and along the proposed gravel road and trail in the Spur area. The improved parking area at Forest Drive SE may require water quality treatment through a modular wetland system before runoff can enter the local stormwater conveyance system.

**2) Could waste materials enter ground or surface waters? If so, generally describe.**

Construction could result in stormwater escaping the construction perimeter and entering Coal Creek and other associated tributaries and wetlands. It could include sediment and small amounts of equipment-related materials such as motor oil and hydraulic fuel.

After construction, if the sewer trunk in the ESI Connection or Spur areas ruptured unexpectedly in an emergency, the contents of the pipe system could enter Coal Creek. This risk will be substantially reduced from existing conditions, in which the existing pipe is adjacent to or directly under Coal Creek for almost its entire length.

To minimize these risks, King County WTD will adhere to construction BMPs. Additional care will be taken during construction monitoring efforts during and after storm events greater than the two-year event. During and after construction, King County will also continue to conduct regular monitoring of its infrastructure in this area.

**3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

The project may affect surface water drainage through the addition of approximately 18,000 square feet of new impervious surfaces (approximate 2 percent increase from existing). Existing stormwater flow patterns will remain similar, and runoff will be directly to existing drainage infrastructure.

Stream flow patterns in Coal Creek at both the Condos and the Spur will be similar, with minor variation anticipated due to the installation of new large woody material structures. A short segment (approximately 26 linear feet) of Tributary 1 will also be realigned at its confluence with Coal Creek at the Spur. This will improve drainage conditions by allowing greater connectivity between the upstream portion of Tributary 1 and downstream connectivity with Coal Creek.

**d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:**

The project will implement BMPs in compliance with the TESC plan and the SWPPP to avoid and minimize impacts to runoff and surface waters during construction. Temporary impacts to existing vegetation, wetlands, and streams will be restored after construction to existing or better conditions. Restoration will include decompaction and soil amendments to help restore infiltration potential where appropriate.

#### 4. Plants

##### a. Check or circle types of vegetation found on the site:

Deciduous trees: alder, maple, aspen, other

Evergreen trees: fir, cedar, pine, other

Shrubs

Grass

Pasture

Crop or grain

Orchards, vineyards, or other permanent crops

Wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

Water plants: water lily, eelgrass, milfoil, other

Other types of vegetation

##### b. What kind and amount of vegetation will be removed or altered?

Vegetation to be removed by the project will consist of a mixture of grasses, shrubs, and trees. Some of the areas are disturbed and largely composed of King County listed Non-regulated Class B and C noxious weeds, such as Himalayan blackberry (*Rubus armeniacus*) and English ivy (*Hedera helix*). All temporarily impacted areas will be restored to existing conditions or better with a native plant palette. Wetland mitigation will also include enhancement of native vegetation.

##### c. List threatened or endangered species known to be on or near the site.

There are no threatened or endangered plant species known to be on or near the site.

##### d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

The vegetation management plan will include the following for trees removed as part of proposed actions:

- Tree protection plans to avoid and minimize impacts as much as possible
- More than one tree will be planted for each tree that must be removed
- Conifers will be replaced with conifers
- Deciduous trees will be replaced with a mixture of conifers and deciduous trees to promote increased canopy cover and recruitment by conifers

The County also proposes to include wetland creation, wetland enhancement, and buffer enhancement at the ESI Connection. All other temporarily impacted areas will also be cleared of invasive species, decompacted as needed, and revegetated with native plantings to existing conditions or better.

- e. **List all noxious weeds and invasive species known to be on or near the site.** English ivy, Himalayan blackberry, and reed canarygrass (*Phalaris arundinacea*) occur within the project area.

## 5. Animals

- a. **List any birds and other animals which have been observed on or near the site or are known to be on or near the site.**

Wildlife species observed during reconnaissance site visits have included dark-eyed junco (*Junco hyemalis*), American robin (*Turdus migratorius*), spotted towhee (*Pipilo maculatus*), American crow (*Corvus brachyrhynchos*), northern flicker (*Colaptes auratus*), American bushtit (*Psaltriparus minimus*), Bewick's wren (*Thryomanes bewickii*), and squirrels.

WDFW Priority Habitats and Species program also documents steelhead trout (*Oncorhynchus mykiss*), Chinook salmon (*O. tshawytscha*), coho salmon (*O. kisutch*), sockeye salmon (*O. nerka*), and coastal resident cutthroat (*O. clarki clarki*) within Coal Creek.<sup>4</sup> Electrofishing surveys have also captured western brook lamprey (*Lampetra richardsoni*), torrent sculpin (*Cottus rhotheus*), and rainbow trout (*O. mykiss*, resident form) in addition to juvenile coho salmon and cutthroat trout.<sup>5</sup>

The Cornell Lab of Ornithology's eBird website manages a database of citizen-generated reports in areas defined as birding "hotspots."<sup>6</sup> There is a birding hotspot near the Project area. It is expected that similar species will use the project area since both the hotspot and the project area are within a connected habitat corridor. In total, 59 bird species have been observed at the hotspot including the following species of local concern: pileated woodpecker (*Dryocopus pileatus*) and red-tailed hawk (*Buteo jamaicensis*).

Other than dogs and humans, no mammals were observed during site visits or documented in other publicly available sources. However, the area is likely used by mammals such as deer, bears, cougars, beavers, squirrels, and other small mammals. No amphibians were observed or have been documented. However, there is potentially suitable habitat for salamanders and frogs in some of the wetlands and low-velocity stream areas.

<sup>4</sup> Washington Department of Fish and Wildlife. n.d. Priority Habitats and Species report. <http://wdfw.wa.gov/conservation/phs>. Accessed February 2, 2017.

<sup>5</sup> Hart Crowser, 2015. Bellevue Summer Electrofishing 2015. Prepared for City of Bellevue Utilities Department. [https://bellevuewa.gov/sites/default/files/media/pdf\\_document/Final\\_2015\\_Bellevue\\_Electrofishing\\_Report\\_2015\\_20150824.pdf](https://bellevuewa.gov/sites/default/files/media/pdf_document/Final_2015_Bellevue_Electrofishing_Report_2015_20150824.pdf).

<sup>6</sup> Cornell Lab of Ornithology. n.d. Ebird hotspot for Coal Creek Natural Area. "Coal Creek Natural Area Trail." <https://ebird.org/hotspot/L6226103>. Accessed June 15, 2020.

**b. List any threatened or endangered species known to be on or near the site.**

Puget Sound Chinook and Puget Sound steelhead are federally threatened species previously documented within the project area.

Bull trout (*Salvelinus confluentus*) could access the site, but they are unlikely to be present due to elevated water temperatures overlapping with migration timing.

**c. Is the site part of a migration route? If so, explain.**

Coal Creek is a documented migration route for salmonids. More generally, WDFW identifies the Coal Creek Natural Area as a Biodiversity Corridor that is part of the King County Wildlife Habitat Network. Finally, the project area is within the Pacific Flyway for migratory birds.

**d. Proposed measures to preserve or enhance wildlife, if any:**

The design will reduce the footprint for construction to the greatest extent possible to preserve available habitat. The County will also continue to evaluate ways to reduce the duration of construction as design progresses.

In-stream work will occur only during approved in-water work windows to avoid and minimize harm to salmon and other fish in the waterway. The affected reaches of Coal Creek will be isolated or put in a stream bypass, and fish will be removed from the stream channel by qualified biologists using approved fish removal protocols prior to construction.

The project will also include aquatic habitat improvements, including a side channel at the Spur and the introduction of additional large woody material in Coal Creek at the Condos and at the Spur. Large woody material will enhance in-stream habitat and slow Coal Creek velocities to encourage mixing of the water column and formation of deeper pools. These actions will provide places for fish to rest. Pool formation can also improve stream temperature.

**e. List any invasive animal species known to be on or near the site.**

The following invasive animal species have the potential to occur, based on available habitat and documented occurrence in nearby basins:

- American bullfrog (*Lithobates catesbeianus*)
- New Zealand mudsnail (*Potamopyrgus antipodarum*)
- Invasive crayfish (*Pacifastacus leniusculus*)

## 6. Energy and Natural Resources

- a. **What kinds of energy (electric, natural gas, oil, woodstove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

The completed project will not have energy needs; wastewater will flow by gravity.

- b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

The project will not affect solar use by adjacent projects.

- c. **What kind of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

The completed project will not have energy impacts; therefore, there are no measures proposed to reduce or control energy impacts.

## 7. Environmental Health

- a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

- 1) **Describe any known or possible contamination at the site from present or past uses.**

There is no documented contamination in the project area.

- 2) **Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

The project overlaps with the Olympic Pipeline where the pipeline crosses Coal Creek Parkway SE. Construction activities in the vicinity of the pipeline will be subject to additional conditions and constraints. Activities will be coordinated with and observed by representatives of the pipeline owner.

- 3) **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

Beyond the fuel and contaminants associated with operating construction equipment, the project will not store, use, or produce toxic or hazardous chemicals.

The completed project will convey untreated wastewater. Exposure to untreated wastewater can be hazardous, but the risk of exposure to members of the public will be negligible. The purpose of the project is to provide additional capacity in the sewer system in the project area, thereby reducing the risk of wastewater overflows compared to existing conditions.

- 4) **Describe special emergency services that might be required.**

No special emergency services will be required beyond those currently available in the area.

- 5) **Proposed measures to reduce or control environmental health hazards, if any:**

As described in items B.1.h and B.3.d. above, BMPs and other measures will be used to avoid or contain and control any accidental spills or releases of hazardous materials during project construction. Project plans, construction specifications, and the contractor's health and safety plan will include measures to safely handle and dispose of contaminated materials. No sources of contaminated materials are known to be on the project site. However, if unexpectedly encountered during construction, contaminated materials will be removed from the work area and transported to a permitted disposal site in accordance with applicable regulations.

Once the project is complete, staff at King County's South Treatment Plant will be available at all times to respond immediately to wastewater spills and clean up affected areas according to the County's established spill response procedures.

**b. Noise**

- 1) **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

The dominant source of noise in the study area is vehicle traffic on local roadways and primarily Coal Creek Parkway SE and Interstate 405. Existing traffic noise is audible from many locations along the public trails

within the park. Noise is not anticipated to affect construction or operation of the project.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

Construction noise would be short-term and include the operation of equipment, including excavation, trenchless pipe installation, removal and installation of sewer MH structures, and/or demolition and replacement of roadway pavement. The City of Bellevue's code allows construction noise from 7 a.m. to 6 p.m. Monday through Friday and 9 a.m. to 6 p.m. on Saturday. No construction noise is permitted on Sundays or legal holidays (City of Bellevue Land Use Code 9.18.020.C).

Nighttime work may be required to reduce overall duration of construction, especially for trenchless work. Any nighttime work would likely require a generator and the use of construction equipment. A City noise permit would be required for extended construction hours.

The completed project will not result in additional noise.

- 3) Proposed measures to reduce or control noise impacts, if any:**

Construction will adhere to the City code for permissible noise levels (Chapter 9.18 Noise Control). General construction noise mitigation measures that could be used include the following:

- Use only ambient-sensing broadband backup alarms and minimize backing up
- Limit engine idling to 3 minutes or less
- Use radios for long-range communication; only use raised voices and public address systems in an emergency
- Use upgraded engine exhaust mufflers, engine shrouds, or sound enclosures on noisier equipment
- Use electric and hydraulic equipment instead of diesel or pneumatic equipment
- Require the contractor to develop a noise control plan to identify and mitigate noise impacts based on specific means and methods
- Obtain a noise permit if nighttime work is required

Additional mitigation measures will be developed as part of project-specific documentation. Examples of proposed mitigation measures include equipment maintenance; equipment mufflers; and long, flexible noise barriers that are 12 feet high around the trailhead parking lot at the Spur to reduce noise generated by direct pipe jacking.

## 8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

Most of the project will occur in the Coal Creek Natural Area, which is used by the public for passive recreation. The City also occasionally uses the gravel maintenance roads at the ESI Connection and at the Spur to remove sediment from the Coal Creek sediment retention ponds. Adjacent properties are comprised of single- and multifamily homes. During construction, the County may temporarily occupy adjacent properties in coordination with property owners. Project construction will also temporarily restrict the use of Coal Creek Natural Area in the Spur area, as described in further detail in Section B.12.b below.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?**

The project site has not been used as working farmlands or working forest lands for many decades.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:**

There are no working farm or forest land operations surrounding the project; therefore, the project will not affect or be affected by such operations.

- c. Describe any structures on the site.**

The existing Coal Creek Trunk and City laterals contain subsurface pipe segments, and above and subsurface MHs. Coal Creek Parkway SE and other public roadways run parallel and cross the work limits. The Condos location includes residential properties and a parking lot, in addition to structures associated with utilities.

Hiking trails (Coal Creek Trail and King County Dirt Trail) surfaced with bark-like material also run throughout the project area. The trails are used for

recreational purposes. There is a parking lot at the Red Cedar (Upper West Coal Creek) Trailhead and a small pull-out along Forest Drive SE for trail parking.

A 39-foot-wide, open-bottom box culvert designed to enhance fish passage conveys Coal Creek underneath Coal Creek Parkway SE. Tributaries 0272, 1, and 2 also have culvert crossings at the Spur below existing trail and/or parking lot access improvements. There are also two sediment ponds at the ESI Connection and at the Spur. One additional offline sediment pond is located at the end of 125th Avenue SE (Anna's Pond).

**d. Will any structures be demolished? If so, what?**

Pipe crossings and associated MHs and segments will be removed at the Condos and at the Spur stream restoration sites. All other MHs and pipes associated with the decommissioned portion of the existing pipe will be plugged below ground and capped if extending above. There will also be several temporary staging areas, construction access roads, and the temporary parking lot by the Condos that will be constructed and subsequently demolished to restore these areas.

**e. What is the current zoning classification of the site?**

The current zoning classification of the Project is the following (City of Bellevue Land Use Code 20.10.180, 20.10.200, and 20.10.220):

- R-1: Single Family Residential Estate District (low density)
- R-2.5: Single Family Residential District (low to moderate densities)
- R-20: Multifamily Residential Districts (moderate density)

**f. What is the current comprehensive plan designation of the site?**

The project is located within the Newport neighborhood area. The Bellevue Comprehensive Plan land use designations in the project area include:

- P/SF-L – Park/Single-Family Low Density
- SF-H – Single-Family High Density
- SF-M – Single-Family Medium Density
- MF-M – Multi-Family Medium Density
- PF/SF-L – Public Facility/Single-Family Low Density
- PF/SF-M – Public Facility/Single-Family Medium Density

The majority of the project area is located within the PF/SF-L designation. Zoning in the study area is primarily single-family residential. There is a small area south of Coal Creek Parkway SE at the intersection with Factoria Boulevard SE that is zoned multifamily.

- g. If applicable, what is the current shoreline master program designation of the site?**

There are no shorelines of the state located within the project area.

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.**

Yes. The majority of the site is designated as a critical area or a critical area buffer. These areas are summarized by location in **Table 6**.

Table 6: Critical areas within work areas

Type	ESI Connection	Condos	125th Avenue SE	Microtunnel	Forest Drive SE	South Trunk Connector	Spur
Stream	Coal Creek	Coal Creek, Tributary 0268	None	None	None	Coal Creek, Tributaries 2 and 0272	Coal Creek, Tributaries 1, 2, and 0272
Stream Buffer	Buffer	Combined Buffer	Coal Creek Buffer	Stream 1 Buffer	None	Combined Buffer	Combined Buffer
Wetland	Wetlands A and D/E	None	None	None	None	None	Wetlands H, I, and J
Wetland Buffer	Combined Buffer	Wetland D/E Buffer	None	None	None	Combined Buffers: Wetlands A1 and B	Combined Buffers: Wetlands A1, B, G, H, I, and J
Habitat	PHS Biodiversity Corridor, fish-bearing streams, other species of local importance	PHS Biodiversity Corridor, fish-bearing streams, other species of local importance	PHS Biodiversity Corridor, fish-bearing streams, other species of local importance	PHS Biodiversity Corridor, fish-bearing streams, other species of local importance	PHS Biodiversity Corridor, fish-bearing streams, other species of local importance	PHS Biodiversity Corridor, fish-bearing streams, other species of local importance	PHS Biodiversity Corridor, fish-bearing streams, other species of local importance
Geologic Hazard	Moderate to high liquefaction, steep slopes	Moderate to high liquefaction, steep slopes	Moderate to high liquefaction	Steep Slopes	None	None	Steep Slopes
Geologic Hazard Buffer	Top of Steep Slope Buffer	Top of Steep Slope Buffer	None	Top of Steep Slope Buffer	None	Top of Steep Slope Buffer	None (at base of slopes)
Frequently Flooded	100-Year Floodplain	100-Year Floodplain	None	None	None	100-Year Floodplain	100-Year Floodplain

**i. Approximately how many people would reside or work in the completed project?**

The project will not have any effect on the number of people residing or working in the vicinity after construction is completed.

**j. Approximately how many people would the completed project displace?**

No people will be displaced because of the completed project.

**k. Proposed measures to avoid or reduce displacement impacts, if any:**

No people will be displaced because of the completed project; therefore, no measures to avoid or reduce displacement impacts are proposed.

**l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:**

The project is undergoing coordination and review with local, state, and federal jurisdictions to obtain all necessary approvals and permits to ensure compatibility with existing and projected land uses and plans.

**m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:**

No agricultural and forest lands of long-term commercial significance will be affected. No measures are proposed.

**9. Housing**

**a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

No housing units will be provided upon project completion.

**b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

No housing units will be eliminated upon project completion.

**c. Proposed measures to reduce or control housing impacts, if any:**

No housing impacts are anticipated; therefore, no measures to reduce or control housing impacts are proposed.

## 10. Aesthetics

- a. **What is the tallest height of any proposed structure(s), not including antennae; what is the principal exterior building material(s) proposed?**

The tallest permanent structure will be the 18-foot-tall, concrete retaining wall proposed at the Spur.

- b. **What views in the immediate vicinity would be altered or obstructed?**

Views will temporarily be altered by construction. Once complete, the following areas will be permanently altered:

ESI Connection: Existing forested vegetation will be replaced with young plantings that will take time to grow.

Condos: Existing forested vegetation will be replaced with young plantings that will take time to grow. Condo residents will also be able to see the proposed fabric encapsulated soil lifts and large woody material structures along the right bank of Coal Creek from their green space.

125th Avenue SE: There will be limited vegetation clearing in this area, to be replaced with young, native plantings. The other proposed activities (relining the sewer and restoring roadway) are not likely to alter views.

Microtunnel: The slopes in these areas will be permanently altered by clearing and grading associated with the staging and microtunnel pipe installation activities. The existing vegetation will be replaced with young plantings that will take time to grow.

Forest Drive SE: A new parking lot adjacent to an existing street may alter the view. There may also be new, modular wetlands and other restoration plantings visible.

South Trunk Connector: The activities at this location are largely contained to existing impervious surfaces. Therefore, views are unlikely to be substantially impacted in the final condition.

Spur: The views in the Spur area will be altered by the following structures: an 18-foot retaining wall between the steep slopes and the trail, conversion of the existing gravel and mulch trail to a permanent ADA-compliant and maintenance vehicle gravel access road, and replacement of the Tributary 1 culvert with a new wood bridge about 10 feet north of the existing crossing. New large woody material structures will also be visible in Coal Creek from the trail. Temporarily cleared vegetation will be restored with young plantings that will take time to grow.

**c. Proposed measures to reduce or control aesthetic impacts, if any:**

Most of the visual changes to the affected environment will be consistent with the natural character of the project area. The new retaining wall at the Spur will be textured and colored to fit with the natural area. The County will continue to coordinate with agencies with jurisdiction, interested organizations, and affected residents to identify potential concerns.

**11. Light and Glare**

**a. What type of light or glare will the proposal produce? What time of day would it mainly occur?**

During construction, daytime welding and night work may either require light or produce glare.

**b. Could light and glare from the finished project be a safety hazard or interfere with views?**

No aboveground structures are anticipated to produce light or glare. Therefore, the finished project will not pose a safety hazard or interfere with views.

**c. What existing off-site sources of light or glare may affect your proposal?**

No existing off-site sources of light or glare will affect the project.

**d. Proposed measures to reduce or control light and glare impacts, if any:**

During construction, lights or glare produced from welding and construction equipment will be shielded, as needed. Any temporary lights at night will be shielded and focused towards the construction area of interest.

**12. Recreation**

**a. What designated and informal recreational opportunities are in the immediate vicinity?**

Hiking is a designated activity in the project area. The King County Dirt Trail runs from the King County Dirt Trailhead to Coal Creek Parkway Southeast. The Coal Creek Trail starts at the Red Cedar (Upper West Coal Creek) Trailhead and continues to Lakemont Boulevard SE. Both trails have branches leading to publicly accessible trailheads.

- b. Would the proposed project displace any existing recreational uses? If so, describe.**

Construction at the Spur will be locally disruptive to recreational uses for an extended period of time, perhaps more than two years. During construction, Natural Area users will be detoured around the work area via existing trails, including a recently-expanded trail network accessible from Forest Drive SE. The existing trailhead on Forest Drive SE will be expanded to allow recreational users arriving by car to continue accessing the trail network in the vicinity of the Red Cedar Trailhead during construction. The Red Cedar Trailhead and local trail network will be fully restored at project completion, with the addition of an extended ADA-compliant trail segment.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

King County WTD will provide signage and reduce duration of trail closures to the greatest extent practical. The completed project will include an extended ADA-compliant trail segment from the Red Cedar Trailhead upstream along Coal Creek.

### **13. Historic and Cultural Preservation**

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.**

No buildings, structures, or sites over 45 years old listed in or eligible for listing in national, state, or local preservation registers are located on or near the site.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.**

One ethnographic place, an Indian trail, has been documented near the project area. The project will not impact this trail. The Coal Creek Natural Area was historically used for coal mining, and two historic coal mines are located approximately 0.5 and 1 mile from the project area. The project will not impact either coal mine.

The project area has been surveyed for cultural resources numerous times, and no archaeological sites or register-listed historic properties have been recorded in the project area. Environmental Science Associates conducted an assessment

and archaeological survey specifically addressing the project's area of potential effects in 2019.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

The project was screened by the King County Historic Preservation Program (KC HPP) for the presence of cultural resources within the project area. These screenings included a review of historic registers, databases including the Washington Department of Archaeology and Historic Preservation's (DAHP) records database (WISAARD), historic maps and reports, and predictive GIS modeling.

Environmental Science Associates reviewed literature and conducted pedestrian and subsurface surveys within the project's area of potential effects. During the permitting process, the County will participate in consultation with affected Tribes and other interested parties to identify and address additional concerns related to cultural resources.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

The County will implement an inadvertent discovery plan (IDP) for project construction. The IDP will provide guidance to contractors for identifying potential cultural resources, and establish procedures to follow in the event of the unanticipated discovery of potential cultural resources in order to protect the discovery until it can be assessed by a professional archaeologist. Some construction activities, such as open trenching in areas identified as having a high probability of intact cultural resources, may be observed by trained archaeological monitors. Potential discoveries will be addressed according to the project's IDP. The County may also incorporate additional measures developed during consultation with affected parties.

#### **14. Transportation**

- a. Identify public streets and highways serving the site or affected geographic area, and describe proposed access to the existing street system. Show on site plans, if any.**

Coal Creek Parkway SE is a major corridor route that runs along and bisects Coal Creek Natural Area. The King County Dirt Trailhead is reached by 199th Avenue SE. The Upper West (Red Cedar) Trailhead is reached by Coal Creek

Parkway SE. Construction access will be from several points along Coal Creek Parkway SE.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

There is a bus stop at the King County Dirt Trail Head that serves King County Metro Buses 114 and 240. There is no bus stop at the Upper West (Red Cedar) Trailhead.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?**

The completed parking lot at Forest Drive SE, if retained as a permanent improvement, will provide 18 new parking spots. No parking spaces will be permanently eliminated. During project construction there will be temporary impacts to parking capacity at the Condos and at the Red Cedar Trailhead.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

Existing roads, sidewalks, and other transportation facilities within the work limits will be restored to existing conditions or better at project completion. The project will not require any other new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

The project will not use or occur in the immediate vicinity of water, rail, or air transportation.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?**

Project construction will require vehicular trips in the form of materials import and export, equipment mobilization and demobilization, and contractor passenger vehicles. Over the entire course of construction, estimated as a five-year period, transport of materials and equipment for the project will require approximately 5,000 round-trip truck trips. Passenger vehicles associated with the project will have negligible impacts compared to current traffic volumes in

the project area. The completed project will not generate any additional vehicular trips.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

The project will not interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area because there are no farms or timberlands within the vicinity.

- h. Proposed measures to reduce or control transportation impacts, if any:**

The completed project will not impact transportation.

Construction may affect transportation. A traffic control plan will be completed and approved by the City prior to the start of construction to reduce and control transportation impacts.

## 15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

The project is not anticipated to result in an increased need for public services.

- b. Proposed measures to reduce or control direct impacts on public services, if any:**

The project is not anticipated to result in an increased need for public services; therefore, no measures to reduce or control direct impacts on public services are proposed.

**16. Utilities**

- a. **Circle utilities currently available at the site:**  
**electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, storm sewers**
- b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

The project is a regional sewer project, which will be built and operated by the County's Wastewater Treatment Division. The general construction activities are the subject of this environmental checklist. Construction activities may require temporary electrical service, but no other utilities are required for the completed project.

**C. SIGNATURE**

**The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.**



**Signature:** \_\_\_\_\_

Katherine Fischer, Environmental Programs Managing Supervisor  
King County Department of Natural Resources and Parks, Wastewater Treatment Division

**Date Submitted:** 1/8/2021

Figure 1. Project work area

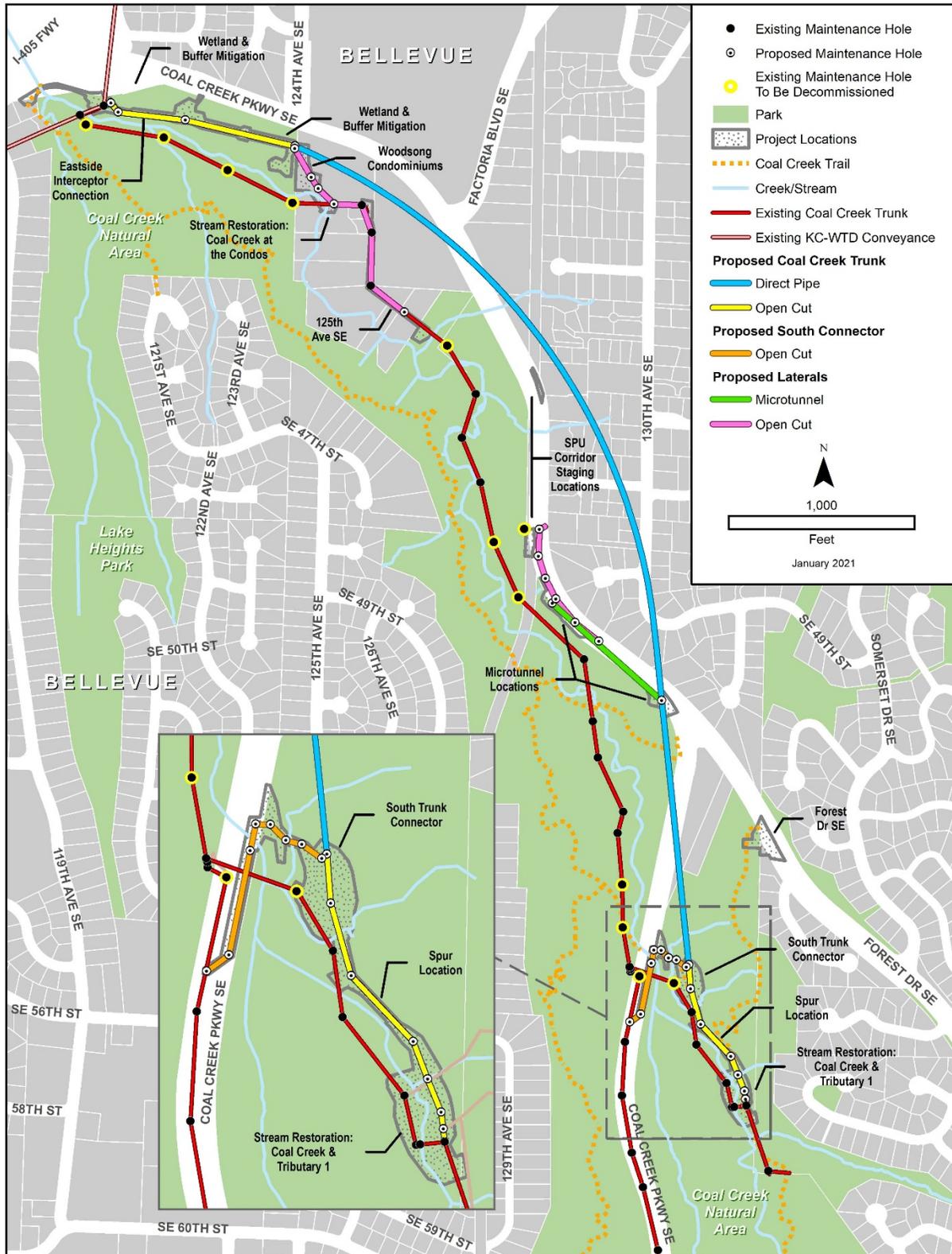
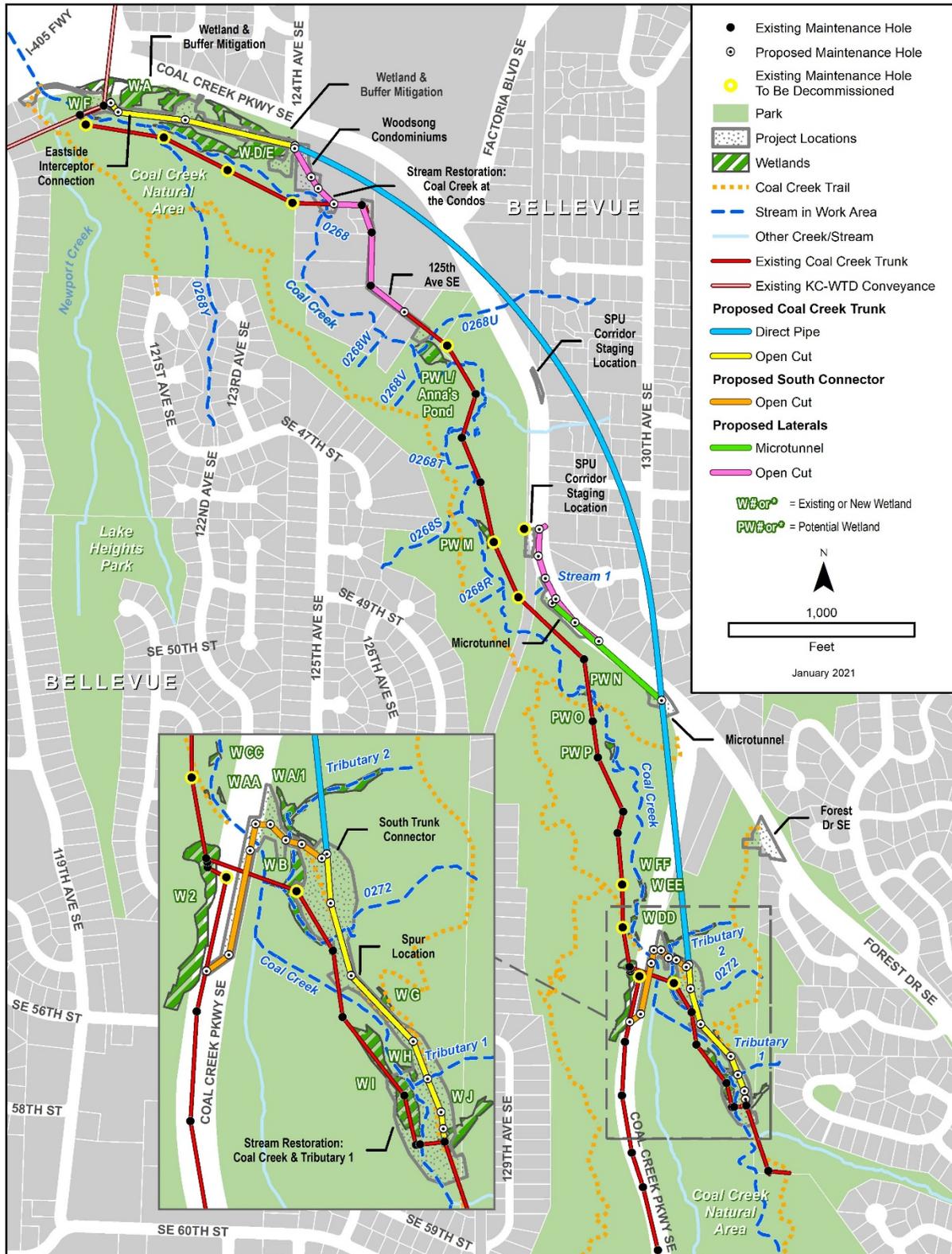


Figure 2. Wetlands and streams in the project area



**Appendix A. Greenhouse gas emissions worksheet**

**Section I: Buildings**

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO <sub>2</sub> e)			Lifespan Emissions (MTCO <sub>2</sub> e)
			Embodied	Energy	Transportation	
Single-Family Home.....	0		98	672	792	0
Multi-Family Unit in Large Building .....	0		33	357	766	0
Multi-Family Unit in Small Building .....	0		54	681	766	0
Mobile Home.....	0		41	475	709	0
Education .....		0.0	39	646	361	0
Food Sales .....		0.0	39	1,541	282	0
Food Service .....		0.0	39	1,994	561	0
Health Care Inpatient .....		0.0	39	1,938	582	0
Health Care Outpatient .....		0.0	39	737	571	0
Lodging .....		0.0	39	777	117	0
Retail (Other Than Mall).....		0.0	39	577	247	0
Office .....		0.0	39	723	588	0
Public Assembly .....		0.0	39	733	150	0
Public Order and Safety .....		0.0	39	899	374	0
Religious Worship .....		0.0	39	339	129	0
Service .....		0.0	39	599	266	0
Warehouse and Storage .....		0.0	39	352	181	0
Other .....		0.0	39	1,278	257	0
Vacant .....		0.0	39	162	47	0

**Section II: Pavement.....**

Pavement.....		218.00				10900
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**Total Project Emissions:**

<b>10900</b>
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