

**SEATTLE PUBLIC UTILITIES
SEPA ENVIRONMENTAL CHECKLIST**

This SEPA environmental review of Seattle Public Utilities’ Lakeridge Slope Stabilization Project has been conducted in accordance with the Washington State Environmental Policy Act (SEPA) (RCW 43.21C), State SEPA regulations [Washington Administrative Code (WAC) Chapter 197-11], and the City of Seattle SEPA ordinance [Seattle Municipal Code (SMC) Chapter 25.05].

A. BACKGROUND

1. Name of proposed project:

Lakeridge Slope Stabilization Project (C314059)

2. Name of applicant:

Seattle Public Utilities (SPU)

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

Katie Wilson, Project Manager
Seattle Public Utilities
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Seattle, WA 98124-4018
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4. Date checklist prepared:

January 3, 2024

5. Agency requesting checklist:

Seattle Public Utilities (SPU)

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

Construction is scheduled to begin in the spring of 2026 and conclude in the summer of 2026. For purposes of this Environmental Checklist, the project is presumed to require up to 67 working days.

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

SPU is developing plans for restoring Taylor Creek as it flows through Dead Horse Canyon in Lakeridge Park and then through SPU-owned properties to its confluence with Lake Washington. That Taylor Creek Restoration Project is currently in design and not yet scheduled for construction. In addition, SPU is proposing to tightline two stormwater outfalls currently discharging onto the east slope of Dead Horse Canyon and causing erosion. Each of those two projects and the proposal subject of this Environmental Checklist are independent of the others.

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

Natural Systems Design. 2021 (April 15). Memo from Bob Keller (Natural Systems Design) to Maria Peraki (Osborn Consulting) regarding 2021 Bald Eagle Nest Area Survey for the Taylor Creek Restoration Project.

SPU. 2015 (August). Geotechnical report: Dead Horse Canyon landslide stabilization alternatives.

SPU. 2022 (August). Draft geotechnical report: Lakeridge Park east slope failure.

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.

SPU is not aware of other pending government approvals of other proposals directly affecting the property or rights-of-way covered by this proposal.

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

Implementation of the proposed work would require these permits or approvals:

- Seattle Department of Construction and Inspections (SDCI): Construction Permit
- Seattle Department of Parks and Recreation (SPR): Revocable Use Permit
- Seattle Department of Transportation (SDOT): Street Use Permit
- SPU: exemption from the City of Seattle’s Environmentally Critical Areas provisions (SMC 25.09)
- Washington Department of Fish and Wildlife (WDFW): Hydraulic Project Approval
- U.S. Army Corps of Engineers: Clean Water Act Section 404 authorization (Nationwide Permit).

11. Give a 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.

SPU owns and maintains a 10-inch diameter sanitary sewer line buried in the east and west slopes of Dead Horse Canyon in Lakeridge Park. Two slope areas have recently evidenced movement. Additional slope movement could damage the buried sewer. A sewer failure at either of these locations would result in a sanitary sewer overflow to Taylor Creek and be difficult to manage and repair. As a result, SPU has identified the Lakeridge Slope Stabilization Project that would install two micropile slope stabilization structures: one approximately 70-foot-long structure on the east side of Taylor Creek and one approximately 140-foot-long structure on the west side of the Creek (Attachments, A, B, and C). Micropiles are small-diameter, bored, cast-in-place composite piles in which the applied load is resisted by steel reinforcement (drill casing or high-strength reinforcing bar) and cement grout. Pile load is transferred to the surrounding ground by skin friction. Micropiles would be designed for a service life of between 50 and 75 years and require no maintenance for that duration.

Each micropile structure would consist of a row of drilled and grouted 6-inch diameter micropiles extending from a few feet below the ground surface to depths of between 15 and

30 feet below ground surface. The west structure would install 68 micropiles on 2-foot centers. The east structure would install 45 micropiles on 1.5-foot centers. A 2-foot wide concrete beam would be constructed to structurally connect the tops of the micropiles, a few feet below the ground surface. Narrow-width tracked and wheeled vehicles, and hand labor, would be used to conduct the work. Vehicles and laborers would use existing pedestrian trails to access both work sites.

Construction of a buried micropile slope stabilization system would begin with excavation of an approximately 6-foot-wide and 2 to 4-foot-deep trench along the micropile alignment. Mini-excavators capable of completing micropile excavation are available with track widths as narrow as 39 inches and operating weights of approximately 4,500 pounds. After the trench has been excavated, a small drill rig would drill holes for the micropiles. Micropile drill rigs with track widths as narrow as 28 inches and an operating weight of approximately 5,000 pounds are available locally. Steel reinforcing bar is then inserted in each drilled hole and the annular space is filled with pressurized grout. A small skid-mounted grout plant would be used to mix grout on-site and to place grout into the drilled holes. Grout and reinforcing materials would be delivered to work sites using small trailers towed by off-road vehicles.

All equipment required for construction of the micropiles is available in widths less than 3.5 feet—the approximate width between railings on the pedestrian bridge across Taylor Creek and less than the average width of the trail. SPU assumes equipment and materials can be mobilized to work sites without significant modifications to the trail or pedestrian bridge. However, work will be required to repair and reinforce the boardwalk to allow equipment to pass over it. Some trail work is expected to repair any damage that might occur as it is used to access work sites during construction. The bridge across Taylor Creek was analyzed structurally and weight for equipment listed above would be limited so it can cross the bridge without causing damage or collapse. Construction would require clearing riparian vegetation. All clearing, excavation and micropile installation would occur in riparian areas of Taylor Creek. However, no micropile work would occur below ordinary high-water marks (OHWM) of the Creek.

In addition to slope stabilization, the Project would extend two 10-inch diameter culverts approximately 10 lineal feet downstream at an existing boardwalk structure near the proposed west micropile structure (Attachment C). The two culverts convey surface runoff and baseflows (discharged groundwater) from the uphill side of the boardwalk (west) to the downhill side of the boardwalk (east). The culvert outlets do not extend to the toe of the embankment supporting the boardwalk and have become partially buried, which has increased potential for instability of the embankment. The culvert extensions will be below OHWMs of the Creek. Failure of the embankment would damage the boardwalk and an SPU sewer attached to the boardwalk. As described above, narrow-width tracked and wheeled vehicles, and hand labor, would be used to conduct the work. Vehicles and laborers would use existing pedestrian trails to access both work sites. All ground disturbed by the Project would be stabilized and revegetated with native plants.

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 proposed Project is on King County tax parcel 0123049002 (unaddressed) in southeast Seattle in the Rainier View neighborhood of the City of Seattle and adjacent unincorporated King County (Attachments A and B). This parcel is owned and managed by SPR. All work would occur in riparian areas above Taylor Creek in its Dead Horse Canyon in the City of Seattle's Lakeridge Park (T23N, R4E S1) (Attachments A and B). The Project is in the Lake Washington/Cedar/Sammamish Water Resource Inventory Area (WRIA 8). Surrounding land uses include urban residential, parkland, and open space.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. **General description of the site:**

Flat Rolling Hilly Steep Slopes Mountainous Other:

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

The work areas are on steep slopes exceeding 40%.

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 these soils.**

General geologic conditions of the Puget Sound region are a result of glacial and non-glacial activity occurring over millions of years and are described in the Washington Department of Natural Resources' Washington Geologic Information Portal (<https://geologyportal.dnr.wa.gov/>). The most recent and extensive glacial activity in the Puget Sound area was the Vashon stade of the Fraser glaciation that ended about 10,000 years ago. The geologic map of Seattle indicates Dead Horse Canyon is underlain by a sequence of glacial and non-glacial deposits with the youngest deposits along the top of the canyon and the oldest deposits at the base of the canyon.

The geologic map indicates the slope in the vicinity of the work areas are underlain by these geologic units generally listed in order of highest to lowest elevation: Vashon subglacial till, Lawton Clay, Pre-Olympia glacial till, and Pre-Olympia non-glacial deposits. These geologic units have been overridden by glacial ice and, as a result, are over-consolidated and typically dense to very dense or very stiff to hard. Vashon subglacial till and Pre-Olympia glacial till generally consist of a poorly sorted mix of silt, sand, and gravel deposited beneath a glacier. Lawton Clay deposits generally consist of laminated to massive silt and clayey silt deposited in lowland proglacial lakes. Pre-Olympia non-glacial deposits can consist of silt, clay, sand, or gravel of non-glacial origin that has been overridden by glacial ice. The geologic map also indicates a layer of mass wastage

deposits could be present at the ground surface along all slopes within the Canyon. Mass wastage deposits consist of soil located on steep slopes. These deposits have not been overridden by glacial ice. Density and composition of mass wastage deposits are typically highly variable. Subsurface conditions indicated by the historical exploration logs and which SPU encountered during geotechnical explorations generally agree with mapped geology and the geologic history of the Canyon. There are no agricultural lands of long-term commercial significance designated in the project area.

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

The City of Seattle designates geologically hazardous areas as Environmentally Critical Areas (ECA) based on historic and current geologic conditions, including topography and underlying soils. According to City of Seattle ECA maps (<http://seattlecitygis.maps.arcgis.com/apps/webappviewer/index.html?id=f822b2c6498c4163b0cf908e2241e9c2>), the project site is in known steep slope areas. The project area shows surface features of unstable soils, including stress fractures.

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

The west slope micropile structure would excavate approximately 90 cubic yards (CY) of native soil materials. Approximately 70 CY of this material and 20 CY of concrete would be used to backfill the excavation. The east slope micropile structure would excavate approximately 50 CY of native soil materials. Approximately 40 CY of this material and 10 CY of concrete would be used to backfill the excavation. The remaining 20 CY and 10 CY of excavated native soil material at the west and east slope sites, respectively would be removed from the site. For the two culvert extensions, total excavation and fill volumes below OHWMs are estimated to be 5.5 and 5 CY, respectively. A dissipation pad would be added at the outfall of each culvert. All ground disturbed by the Project would be stabilized using best management practices (BMP) and revegetated with native plants as directed by SPR.

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

Erosion is expected to be minimal because limited excavation is proposed, sedimentation and erosion controls would be deployed, and work areas monitored for erosion. Construction staging and access would be on existing paved or compacted gravel surfaces.

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

No new impervious surface would be added as a part of this project. Micropiles and the concrete beam would be buried under several feet of soil. Ground disturbance would occur in work sites and would be minimized to just that area required to conduct the work. Existing graveled surfaces damaged by construction would be repaired to existing or better condition. Proposed work would neither increase nor decrease impervious surfaces.

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

Wherever possible, construction staging and access would be on existing paved or compacted graveled surfaces. Risk of erosion and sedimentation is low because the Project proposes minimal excavation in work areas. Temporary erosion and sediment control BMPs would be deployed, inspected, and maintained as required by the City of Seattle’s Stormwater Code SMC Title 22, Subtitle VIII, relevant City of Seattle Director’s Rules, and Volume 2 Construction Stormwater Control Manual. Disturbed ground would be stabilized and revegetated in-kind or as directed by SPR.

2. Air

a. What types of emissions to the air would result from the proposal [e.g., dust, automobile, odors, industrial wood smoke, greenhouse gases (GHG)] during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Mobile and stationary equipment would be used to construct the proposed Project, thus generating emissions due to combustion of gasoline and diesel fuels—such as oxides of nitrogen, carbon monoxide, particulate matter and smoke, uncombusted hydrocarbons, hydrogen sulfide, carbon dioxide, and water vapor. Emissions during construction would also include dust from ground-disturbing activities and exhaust (carbon monoxide, sulfur, and particulates) from construction equipment and are expected to be minimal, localized, and temporary. This Project would generate greenhouse gas (GHG) emissions through construction activity only. The completed Project is not expected to result in increased GHG emissions because all work in this proposal is not expected to require maintenance or replacement for approximately 75 years. GHG emission calculations are shown in Attachment D and summarized in Table 1.

This Project would generate GHG emissions during the estimated 67 working days by operating diesel- and gasoline-powered equipment and transporting materials, equipment, and workers to and from work sites. Estimates are also based on typical transportation and construction equipment used for this type of work. Embodied energy in Project materials used in this Project has not been estimated as part of this SEPA environmental review due to the difficulty and inaccuracy of calculating such estimates.

Table 1. Summary of Greenhouse Gas (GHG) Emissions.

Activity/Emission Type	GHG Emissions (pounds of CO ₂ e) ¹	GHS Emissions (metric tons of CO ₂ e) ¹
Buildings	0	0
Concrete	416,745	189
Construction Activities (Diesel)	72,774	33
Construction Activities (Gasoline)	13,025	5.9
Long-term Maintenance (Diesel)	0	0
Long-term Maintenance (Gasoline)	0	0
Total GHG Emissions	502,544	227.9

¹Note: 1 metric ton = 2,204.6 pounds of CO₂e. 1,000 pounds = 0.45 metric tons of CO₂e

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

There are no known off-site sources of emissions that would affect this proposal.

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

During construction, impacts to air quality would be reduced and controlled through implementation of standard federal, state, and local emission control criteria and City of Seattle construction practices. These would include requiring contractors to use best available control technologies, proper vehicle maintenance, and minimizing vehicle and equipment idling.

3. Water

a. Surface:

(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, wetlands)? If so, describe type and provide names. If appropriate, state what stream or river it flows into.

Taylor Creek is at the bottom of Dead Horse Canyon and would not be impacted by the proposed work. The two culvert extensions would impact two small tributaries to Taylor Creek; those tributaries convey small volumes of discharged groundwater and some stormwater flows.

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

The proposed work would occur within 200 feet of Taylor Creek and within two small tributaries to Taylor Creek.

(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.

For the two culvert extensions, total excavation and fill volumes below OHWMs are estimated to be 5.5 and 5 CY, respectively. A dissipation pad would be added at the outfall of each culvert.

- (4) Will the proposal require surface water withdrawals or diversions? If so, give general description, purpose, and approximate quantities if known.

The proposed work would not require surface water withdrawals or diversions.

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

No portion of the proposed work lies within a 100-year floodplain.

- (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 proposed work would not discharge waste materials to surface waters.

b. Ground:

- (1) Will groundwater 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 groundwater? Give general description, purpose, and approximate quantities if known.

The proposed work would not withdraw, discharge, or surcharge 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.

No waste material would be discharged to groundwater.

c. Water Runoff (including storm water):

- (1) Describe the 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.

The completed Project would not alter existing stormwater drainage patterns.

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

There would be no waste materials from this project that could enter ground or surface waters.

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

No, the proposal would not alter drainage patterns. Any disturbed vegetated areas would be restored in-kind or as directed by SPR.

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

No adverse impacts to surface, ground, or runoff water are anticipated. BMPs, as identified in the City of Seattle’s Stormwater Code SMC Title 22, Subtitle VIII, relevant City of Seattle Director’s Rules, and Volume 2 Construction Stormwater Control Manual, would be used as needed to control erosion and sediment transport from and to the project site during construction.

4. Plants

a. Types of vegetation found on the site:

<input checked="" type="checkbox"/> Deciduous trees:	<input checked="" type="checkbox"/> Alder	<input checked="" type="checkbox"/> Maple	<input type="checkbox"/> Aspen	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Evergreen trees:	<input checked="" type="checkbox"/> Fir	<input checked="" type="checkbox"/> Cedar	<input type="checkbox"/> Pine	<input checked="" type="checkbox"/> Other: hemlock
<input type="checkbox"/> Shrubs				
<input checked="" type="checkbox"/> Grass				
<input type="checkbox"/> Pasture				
<input type="checkbox"/> Crop or grain				
<input type="checkbox"/> Orchards, vineyards, or other permanent crops				
<input type="checkbox"/> Wet soil plants:	<input type="checkbox"/> Cattail	<input type="checkbox"/> Buttercup	<input type="checkbox"/> Bulrush	<input type="checkbox"/> Skunk cabbage
<input type="checkbox"/> Other:				
<input type="checkbox"/> Water plants:	<input type="checkbox"/> water lily	<input type="checkbox"/> eelgrass	<input type="checkbox"/> milfoil	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Other types of vegetation:	weeds			

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

The Project is in forested parkland and open space dominated by native plant species such as Douglas-fir (*Pseudotsuga menziesii*), western redcedar (*Thuja plicata*), and western hemlock (*Tsuga heterophylla*). Approximately 4,300 square feet (SF) of vegetation would be cleared. Up to five trees may need to be removed. Root zones of trees to remain would be protected as per recommendations made by the Project’s consulting arborist.

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

No federally listed endangered or threatened plant species or State-listed sensitive plant species are known to occur within the City of Seattle municipal limits.

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

Proposed work would limit plant removal, pruning, and other disturbance to that required for project construction. Project construction would remove up to five trees. All disturbed ground would be stabilized using BMPs and then revegetated with native plant species as directed by SPR. All tree removals would be mitigated by planting five native trees for each native tree removed.

e. List all noxious weeds and invasive species known to be on or near the site.

The King County Noxious Weed Program (available at King County iMap interactive online mapping program, <http://gismaps.kingcounty.gov/iMap/>) identifies no noxious weeds in the project location.

5. Animals

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

Birds: Hawk Heron Eagle Songbirds
 Other: The Project is in the Pacific Flyway migratory corridor and the project area is known to host a wide variety of transient, resident, and migratory waterfowl, songbirds, and raptors. In addition to boxes checked, some commonly observed species include transient geese, ducks, crows, pigeons, and gulls.

Mammals: Deer Bear Elk Beaver
 Other: The geographic extent of the Project encompasses presence and habitats for a variety of animal species commonly found in urban areas. Commonly observed species include opossums, rabbits, raccoon, skunk, squirrel, rats, mice, and bats.

Fish: Bass Salmon Trout Herring
 Shellfish Other: These and other fish species are present in the Duwamish Waterway, Puget Sound, and Lake Washington. However, the Project location is more than 2,000 feet from Lake Washington and lower Taylor Creek, the nearest anadromous fish-bearing waters. Resident fish species such as sculpin and trout are known to use Taylor Creek below the confluence of the East and West Forks of Taylor Creek.

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

Based on a check of the Washington Department of Fish and Wildlife’s “Priority Habitat Species on the Web” database on December 26, 2023, no State-listed or federal Endangered Species Act-listed species are known from or near the project site. An eagle nest location is near and south of the project site but is not known to have been actively used in recent time (Natural Systems Design 2021).

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

Seattle is within the migratory route of many birds and other animal species and is part of the Pacific Flyway, a major north-south route of travel for migratory birds in the Americas extending from Alaska to Patagonia, South America.

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

The proposed work would limit plant removal, pruning, and other disturbance to that required for construction. All disturbed ground would be stabilized using BMPs and then revegetated with native plant species. All tree removals would be mitigated by planting five native trees for each native tree removed.

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

King County lists the European starling, house sparrow, eastern gray squirrel, and fox squirrel as terrestrial invasive species for this area (<http://www.kingcounty.gov/services/environment/animals-and-plants/biodiversity/threats/Invasives.aspx>).

6. Energy and Natural Resources

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

No additional energy would be required to meet the completed project's energy needs, beyond the energy already utilized for the existing sewer and storm systems.

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

The proposed work does not involve building structures or planting vegetation that would block access to the sun for adjacent properties.

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

There are no conservation features or proposed measures to reduce or control energy impacts because there would be no such 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:

Small amounts of materials likely to be present during construction, mainly to support vehicle and construction equipment, include gasoline and diesel fuels, hydraulic fluids, oils, lubricants, but also may include solvents, paints, and other chemical products. A spill of one of these chemicals could potentially occur during construction due to equipment failure or worker error. Though unlikely, contaminated soils, sediments, or groundwater could also be exposed during excavation. If disturbed, contaminated substances could expose construction workers and potentially other individuals in the vicinity through blowing dust, stormwater runoff, or vapors.

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

The project site is not known to have environmental contamination.

- (a) 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.

There are no known hazardous chemicals or conditions that might affect Project development and design.

- (b) 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.

Chemicals and pollutants that may be present during construction include:

- Petroleum products associated with vehicle and equipment use, including fuel, lubricants, hydraulic fluids, and form-release oils
- Paints, glues, solvents, and adhesives
- Chemicals associated with portable toilets.

No toxic or hazardous chemicals would be stored, used, or produced at any time during the operating life of the completed Project.

- (c) Describe special emergency services that might be required.

No special emergency services such as confined space rescue would be required during construction or operation of the Project. Possible fire or medic services could be required during construction. The completed Project would not demand higher levels of special emergency services than already exist at this location.

- (d) Proposed measures to reduce or control environmental health hazards, if any:

SPU's construction contractor would be required to develop and implement a Spill Plan to control and manage spills during construction. In addition, a spill response kit would be maintained at each work site during construction, and all workers would be trained in spill prevention and containment consistent with the City of Seattle's Standard Specifications for Road, Bridge, and Municipal Construction. During construction, the contractor would use standard operating procedures and best management practices identified in the City of Seattle's Stormwater Code SMC Title 22, Subtitle VIII, relevant City of Seattle Director's Rules, and Volume 2 Construction Stormwater Control Manual to reduce or control any possible environmental health hazards. Soils contaminated by spills during construction would be excavated and disposed of in a manner consistent with the level and type of contamination, in accordance with federal, state and local regulations, by qualified contractor(s) and/or City staff.

b. Noise

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

Noise that exists in the area would not affect 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.**

Noise levels in the vicinity of construction would temporarily increase during construction. Short-term noise from construction equipment would be limited to the allowable maximum levels of applicable laws, including the City of Seattle's Noise Control Ordinance (SMC Chapter 25.08.425—Construction and Equipment Operations). Within the allowable maximum levels, SMC 25.08 permits noise from construction equipment between the hours of 7 a.m. and 7 p.m. weekdays, and 9 a.m. and 7 p.m. weekends and legal holidays. The completed Project would generate no additional noise.

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

Construction equipment would be muffled in accordance with the applicable laws. SMC Chapter 25.08, which prescribes limits to noise and construction activities, would be enforced during construction, except for during any emergencies.

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.**

The Project is on a City-owned parcel owned and managed by SPR as part of Lakeridge Park. Adjacent land uses are single family residential and small commercial businesses. The work would not change land uses on nearby or adjacent properties. However, the proposed work could result in short-term, temporary closures of Holyoke PI S that could affect individuals who use that roadway.

- 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 non-forest use?**

The project site has not been recently used for agricultural purposes or forestry. The Project would not result in land use conversion.

- (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?**

The proposed work would neither be affected by nor affect surrounding working farm or forest land normal business operations because there are no such operations at or near any of the project work sites.

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

The project area includes one pedestrian bridge, one pedestrian boardwalk, and a pedestrian trail network (Attachment C), all of which would be used by the Project for construction access. Otherwise, the Project would access work areas from the parking

area at Holyoke PI S, which includes typical transportation structures such as light poles and street signs.

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

The Project would not demolish any aboveground structures.

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

The project site is currently zoned NR3 (Neighborhood Residential 3; formerly named SF5000 [Single Family 5000 SF]). This designation protects primarily single family residential neighborhoods from inappropriate levels of unrelated retail and commercial uses.

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

The site is designated Neighborhood Residential.

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

The site is not in a Shoreline Management district.

h. Has any part of the site been classified as an “environmentally critical” area (ECA)? If so, specify.

As mapped by the City of Seattle (<http://seattlecitygis.maps.arcgis.com/apps/webappviewer/index.html?id=f822b2c6498c4163b0cf908e2241e9c2>) the project site is in Steep Slope, Steep Slope Buffer, Wetland Buffer, Riparian Management, and Wildlife Habitat ECAs.

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

No people would reside or work in the completed Project.

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

The Project would not displace any people.

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

There would be no displacement impacts.

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

The Project would not change existing land uses. No measures are required to ensure the proposal is compatible with existing and projected land uses and plans.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

There are no nearby agricultural and forest lands of long-term commercial significance. No measures are required to reduce or control impacts to agricultural and forest lands of long-term commercial significance.

9. Housing

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

The Project would not construct any housing units.

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

The Project would not eliminate any housing units.

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

No measures are proposed because there would be no housing impacts.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas? What is the principal exterior building material(s) proposed?

No above-ground utility structures would be added or modified.

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

No views would be altered or obstructed.

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

No such measures are proposed because there would be no aesthetic impacts.

11. Light and Glare

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

The completed Project would not produce light or glare. No new streetlights are proposed or required. During construction, if an emergency requires after-dark work, the construction contractor may deploy portable lights that temporarily produce light and glare.

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

The completed Project would not create light or glare.

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

There are no existing off-site sources of light and glare that would affect the proposal.

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

No measures are needed to reduce or control light and glare impacts because no impacts would occur. If an emergency requires after-dark work during construction, portable lighting would be adjusted as feasible to minimize glare.

12. Recreation

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

The Project is in street right-of-way for Holyoke PI S, which is used to access adjacent residential areas adjacent to Lakeridge Park. There is also a small parking area adjacent to Holyoke PI S that provides trailhead access to the trail network in Dead Horse Canyon. This gravel- and dirt-surfaced trail system is used for informal recreational activities such as dog-walking, walking, and jogging.

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

Proposed work would not permanently displace existing recreational uses. Access to the Holyoke PI S parking area providing trailhead access to the Dead Horse Canyon trail network and the trail network itself would be temporarily impacted by construction. The parking area may be temporarily closed for up to 67 working days and portions of the trail network would be affected by short-term temporary and periodic closures as materials are mobilized on that network and work is conducted adjacent to the network. SPU anticipates full closures of the trail during construction, although trail access may be possible when the contractor is not working during nights and weekends.

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

Temporary lane closures and detours affecting vehicle and pedestrian routes/access may be required during construction. The work may be required to submit, obtain approval for, and implement Traffic Control Plans that maintain pedestrian and bicycle access on Holyoke PI S through or around the work sites during construction. The Project would attempt to make detours as brief as possible and would also repair any damage to the trail network caused by construction.

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? If so, specifically describe.

There are no buildings, structures, or sites on or near the project site that are more than 45 years old and listed in or determined to be eligible for listing in national, state, or local preservation registers. However, there are buildings and structures older than 45 years adjacent to Lakeridge Park. None of those structures would be affected by this Project.

- 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.**

No landmarks, features, or other evidence of Indian or historic use or occupation are known to be on or adjacent to this location. However, according to the Washington Information System for Architectural and Archaeological Records Data (WISAARD) predictive model based on environmental factors, the location is in an area with Low and Moderate Risk rating for detecting archaeological resources. No cultural resource surveys were conducted for the proposed project. No known archaeological materials or cemeteries have been found in or near the project site.

- 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 Archaeology and Historic Preservation, archaeological surveys, historic maps, GIS data, etc.**

To determine if National Register or Washington Heritage Register eligible properties are in or adjacent to the project, the project site was checked against the following resources on December 26, 2023:

Seattle Department of Neighborhoods Landmark Map:

<http://www.seattle.gov/neighborhoods/programs-and-services/historic-preservation/landmarks/landmarks-map>

Seattle Department of Neighborhoods Historic Resources Survey Database:

<http://www.seattle.gov/neighborhoods/programs-and-services/historic-preservation/historic-resources-survey> #historicresourcesurveydatabase

King County Historic Preservation Viewer:

<https://kingcounty.maps.arcgis.com/apps/View/index.html?appid=08c6e1fe041b4f7a8912e21b55219de1>

Washington Heritage Register and National Register of Historic Places:

<http://www.dahp.wa.gov/historic-register>

Washington Information System for Architectural and Archaeological Records Data database: <https://wisaard.dahp.wa.gov/>

- 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 proposed work would minimally disturb upland areas with steep slopes. The proposed work would not affect buildings or known cultural resources. The work is in steep slope areas with Low and Moderate Risk ratings for discovery of contextually significant archaeological materials. However, the Project would have an approved inadvertent discovery plan onsite and in effect during all construction and ground-disturbing activities.

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.**

The project location is in City-owned street rights-of-way and on a City-owned parcel. Generally, staging areas would be on existing paved surfaces in street right-of-way for Holyoke Pl S and on existing gravel-and dirt-surfaced pedestrian trails.

- 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?**

The location is not served directly by public transit. Public bus transit service near the location is provided by King County Metro’s Route 106, which runs on Renton Ave S more than 1,000 feet southwest and uphill from the Project’s work sites.

- c. 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).**

The Project would restore any damaged street panels, curbs, traffic aprons, or other transportation and pedestrian infrastructure to pre-construction conditions or better and consistent with SDOT and SPR requirements. The proposal would not require any new or improved public or private transportation infrastructure.

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

The proposed Project would not use of water, rail, or air transportation.

- e. 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 non-passenger vehicles). What data or transportation models were used to make these estimates?**

Transport of materials, equipment, and workers during construction would generate an estimated 580 round trips. The completed Project is not anticipated to require any maintenance and would not generate round trips.

- f. 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 proposal would not interfere with, affect, or be affected by movement of agricultural and forest products on roads or streets in the area.

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

The proposed work does not have any transportation-related permanent impacts. Temporary lane closures or detours affecting vehicle and pedestrian routes/access may be required. The work may be required to submit, obtain approval for, and implement Traffic Control Plans that maintain pedestrian and bicycle access through or around the

work sites during construction. The following measures would be used to reduce or control transportation impacts:

- SPU may require the contractor to submit a traffic control plan for approval and enforcement by SPU and SDOT.
- SPU would conduct public outreach before and during construction to notify residents, local agencies, Metro, and other stakeholders of work progress and expected disruptions or changes in traffic flow and/or pedestrian access.
- Access for emergency-response vehicles would be maintained at all times.
- Through access may not be available at all times during project. Temporary closures would be minimized and detour routes would be properly and clearly signed. Vehicle access to private properties would be maintained, subject to temporary traffic control measures such as signage and flagging.
- Alternative routes for pedestrians, bicyclists, and those with disabilities would be identified and clearly signed, as needed.

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 proposed Project is not expected to create an increased need for public services. The Project would be required at all times to accommodate emergency access for buildings accessed via affected streets. Emergency access would comply with relevant policies administered by SDOT as part of its street use permitting process.

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

During construction, the Project would be required at all times to accommodate emergency access. No mitigation is being proposed because the Project would not increase impacts on public services.

16. Utilities

a. Check utilities available at the site:

- | | | | | |
|---|--|--|--------------------------------|---|
| <input type="checkbox"/> None | <input type="checkbox"/> Electricity | <input type="checkbox"/> Natural gas | <input type="checkbox"/> Water | <input type="checkbox"/> Refuse service |
| <input type="checkbox"/> Telephone | <input checked="" type="checkbox"/> Sanitary sewer | <input type="checkbox"/> Septic system | | |
| <input type="checkbox"/> Other: cable, fiber optics | | | | |

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.

No interruptions of other utilities or services are anticipated during construction. No new utilities are being proposed. The effect of this proposal would protect an existing buried sewer main that passes through Dead Horse Canyon and minimize risk of its failure.

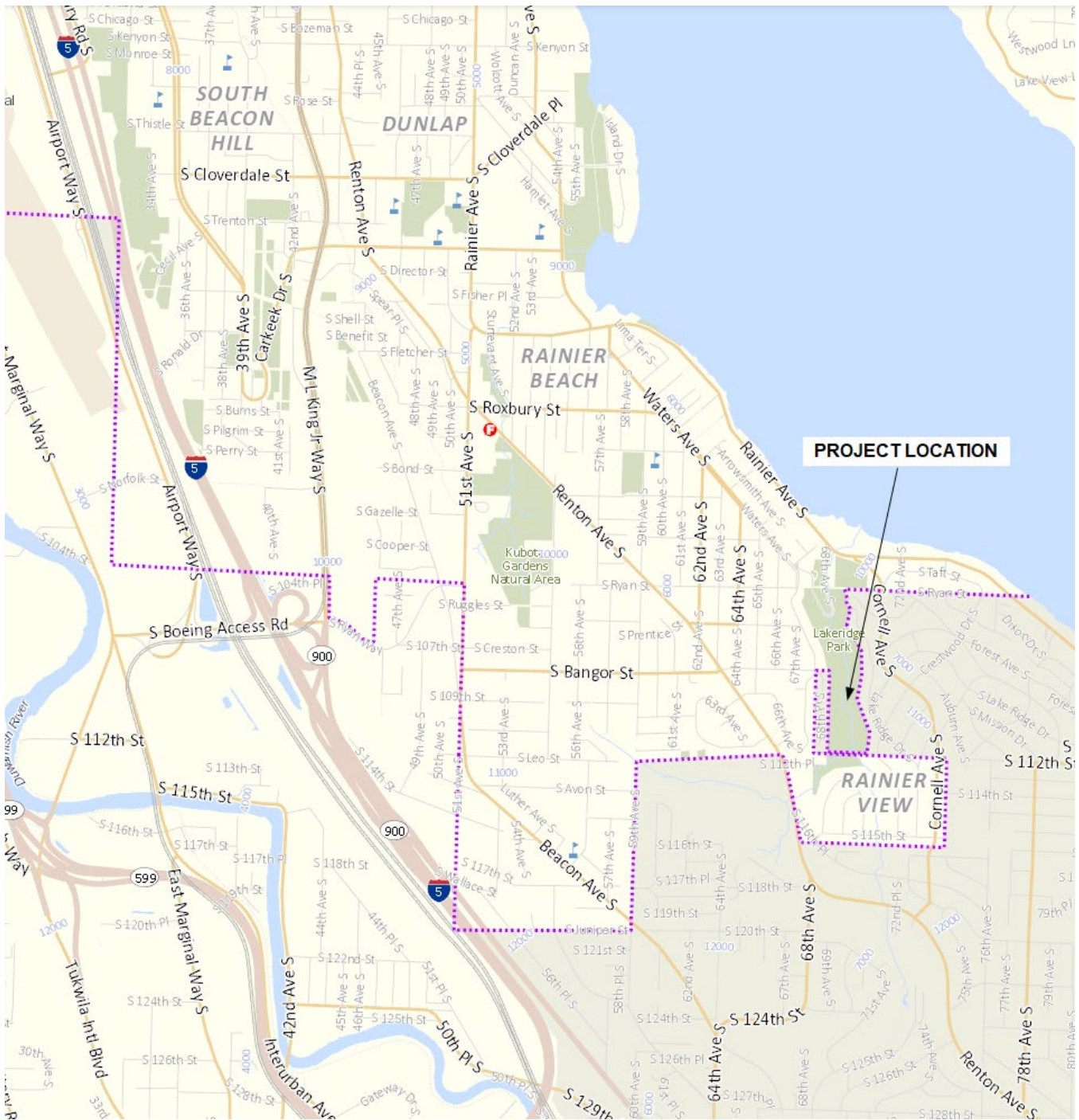
C. SIGNATURE

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.

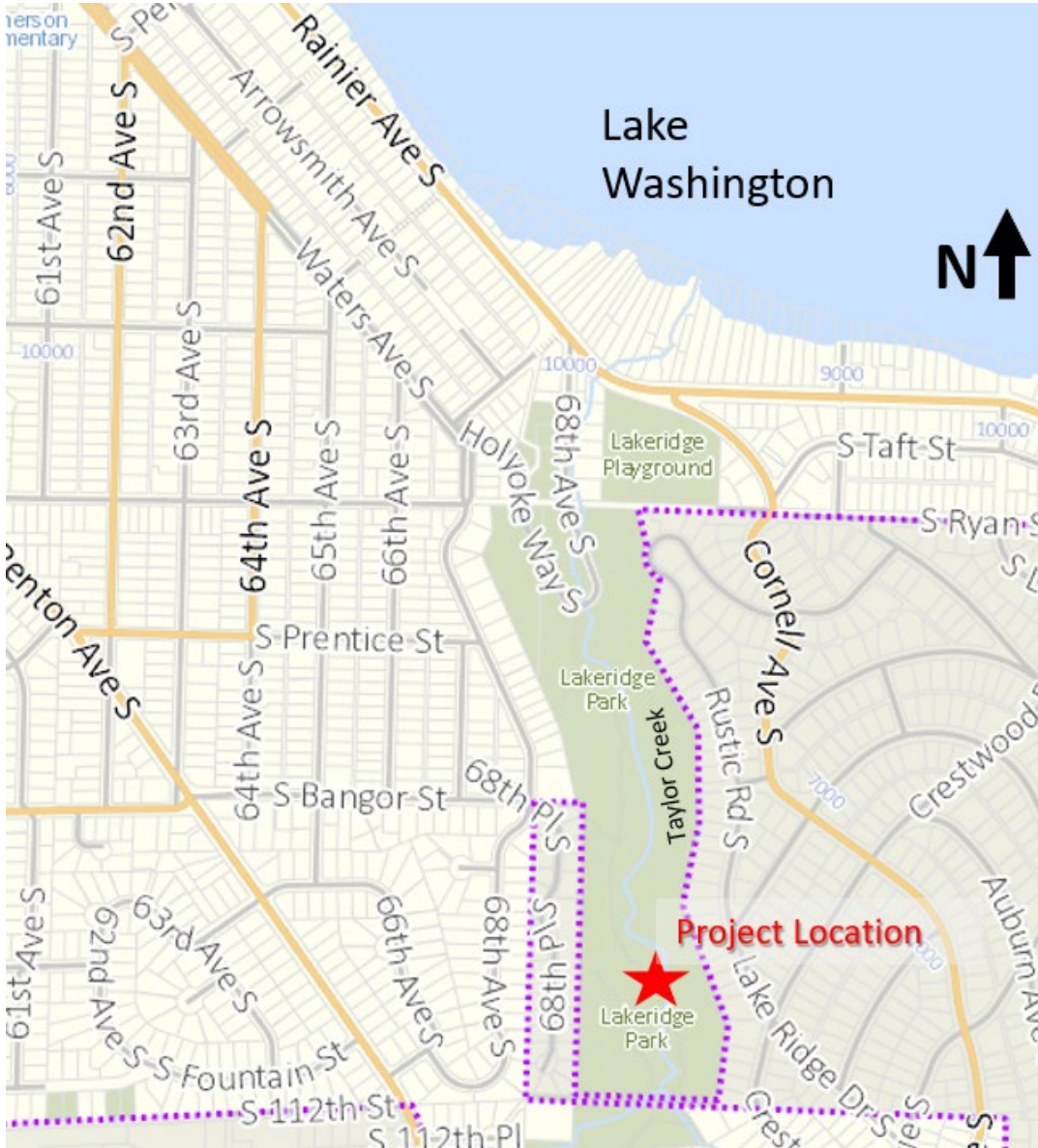
Signature: _____
Katie Wilson, Project Manager

- Attachment A: Vicinity Map
- Attachment B: Location Map
- Attachment C: Work Locations
- Attachment D: Greenhouse Gas Emissions Worksheet

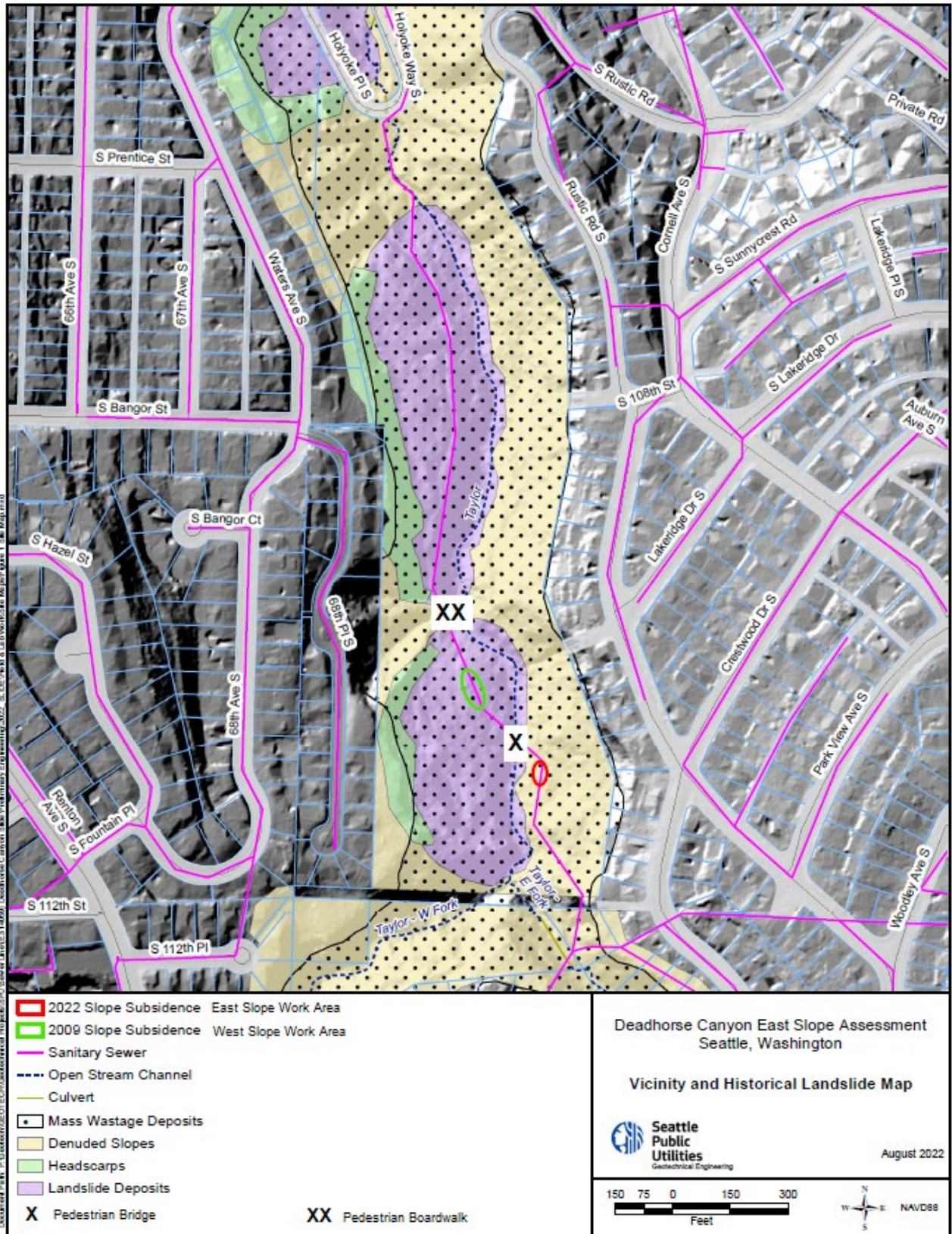
Attachment A: Vicinity Map



Attachment B: Location Map



Attachment C: Work Areas Map



Attachment D: Greenhouse Gas Emissions Worksheet

Section I: Buildings						
			Emissions Per Unit or Per Thousand Square Feet (MTCO ₂ e)			
Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Embodied	Energy	Transportation	Lifespan Emissions (MTCO ₂ e)
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
TOTAL Section I Buildings						0

Section II: Pavement						
						Emissions (MTCO ₂ e)
Pavement (sidewalk, asphalt patch)		0.0	50			0
Concrete (50 MTCO ₂ e per 1,000 sq ft of pavement 6 inches deep)		3,780 (70 CY)	50			189
TOTAL Section II Pavement						

Section III: Construction						
						Emissions (MTCO ₂ e)
(See detailed calculations below)						
TOTAL Section III Construction						38.9

Section IV: Operations and Maintenance						
						Emissions (MTCO ₂ e)
(See detailed calculations below)						
TOTAL Section IV Operations and Maintenance						0

TOTAL GREENHOUSE GAS (GHG) EMISSIONS FOR PROJECT (MTCO₂e)						227.9
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Attachment D (continued): Greenhouse Gas Emissions Worksheet

Section III Construction Details		
Construction: Diesel		
Equipment	Diesel (gallons)	Assumptions
skid-steer-type drill rig (for installing micropiles)	540	6 hours x 30 days x 3 gallons/hour (270 hp engine)
mini-excavator	540	6 hours x 30 days x 3 gallons/hour (270 hp engine)
off-road vehicles (ATV) and trailers (2)	54	2 x 4 miles/day x 67 days ÷ 10 miles/gallon
motorized wheelbarrows (2)	480	2 barrows x 8 hours x 60 days x 0.5 gallons/hour
support flatbed truck	220	2 hours travel per day x 20 days x 5.5 gallons/hour (270 hp engine)
front-end loader	840	120 hours x 7 gallons/hour (345 hp engine)
support box truck with hydraulic lift	67	20 working days x 1 round trip (RT)/day x 20 miles/round trip ÷ 6 mpg
Subtotal Diesel Gallons	2,741	
GHG Emissions in lbs CO₂e	72,774	26.55 lbs CO ₂ e per gallon of diesel
GHG Emissions in metric tons CO₂e	33	1,000 lbs = 0.45359237 metric tons

Construction: Gasoline		
Equipment	Gasoline (gallons)	Assumptions
Pick-up Trucks or Crew Vans	536	67 working days x 4 vehicles x 2 RT/day x 20 miles/RT ÷ 20 mpg
Subtotal Gasoline Gallons	536	
GHG Emissions in lbs CO₂e	13,025	24.3 lbs CO ₂ e per gallon of gasoline
GHG Emissions in metric tons CO₂e	5.9	1,000 lbs = 0.45359237 metric tons

Construction Summary		
Activity	CO ₂ e in pounds	CO ₂ e in metric tons
Diesel	72,774	33
Gasoline	13,025	5.9
Total for Construction	85,799	38.9

Section IV Long-Term Operations and Maintenance Details		
Operations and Maintenance: Diesel		
Equipment	Diesel (gallons)	Assumptions
Subtotal Diesel Gallons		
GHG Emissions in lbs CO₂e		26.55 lbs CO ₂ e per gallon of diesel
GHG Emissions in metric tons CO₂e		1,000 lbs = 0.45359237 metric tons

Operations and Maintenance: Gasoline		
Equipment	Gasoline (gallons)	Assumptions
Subtotal Gasoline Gallons		
GHG Emissions in lbs CO₂e		24.3 lbs CO ₂ e per gallon of gasoline
GHG Emissions in metric tons CO₂e		1,000 lbs = 0.45359237 metric tons

Operations and Maintenance Summary		
Activity	CO ₂ e in pounds	CO ₂ e in metric tons
Diesel		
Gasoline		
Total Operations and Maintenance		