

SEATTLE PUBLIC UTILITIES
SEPA ENVIRONMENTAL CHECKLIST

This SEPA environmental review of Seattle Public Utilities' (SPU) Sewer Rehabilitation Project (Sites 5, 8, and 14) has been conducted in accord 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

A1. Name of proposed project:

Sewer Rehabilitation Project (Sites 5, 8, and 14)

A2. Name of applicant:

Seattle Public Utilities (SPU)

A3. Address and phone number of applicant and contact person:

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A4. Date checklist prepared:

November 9, 2022

A5. Agency requesting checklist:

Seattle Public Utilities (SPU)

A6. Proposed timing or schedule (including phasing, if applicable):

Project construction is scheduled to begin in the spring of 2023 and be complete by spring of 2024. The duration of work at each Spot Sewer site is anticipated to be up to 20 working days.

A7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

This environmental checklist applies to three sites (Sites 5, 8 and 14) in Seattle Public Utilities' (SPU) Sewer Rehabilitation program. The program will have hundreds of sewer repair, replacement and lining sites in the coming years (and decades). The three sites assessed here are a subset of smaller Spot Sewer Rehabilitation program that will take care of approximately 21 spot main repairs and two sewer rehabilitation projects over the next two years.

A8. List any environmental information you know about that has been prepared, or would be prepared, directly related to this proposal.

Due to the small scale of land disturbance to repair single spot locations; no environmental information has been prepared for the Spot Sewer Rehabilitation sites in this proposal.

A9. 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 pending government approvals of other proposals that directly affect the properties or rights of way covered by this proposal.

A10. List any government approvals or permits that would be needed for your proposal, if known.

The following government approvals or permits are anticipated, by site:

- Site 5: Seattle Department of Transportation (SDOT) Utility Major Permit; SDOT Pavement Moratorium Waiver
- Site 8: SDOT Utility Major Permit; SPU Environmentally Critical Areas (ECA) Exemption
- Site 14: SDOT Utility Major Permit

A11. 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. (Lead agencies may modify this form to include additional specific information on project description.)

Seattle Public Utilities' (SPU) Sewer Rehabilitation Program is used to resolve small wastewater and drainage problems throughout the City of Seattle. These problems range from nuisance problems to property damage. Generally, the program repairs broken sewer pipes (and sometimes storm drains) in City-owned street rights-of-way or City easements on private property. Work typically includes (but is not limited to) excavation, replacement of broken pipe segments and pipe fittings, bedding, disposal of excavated material, dewatering, backfilling, closed-circuit television inspection after repair is done, bypass pumping of drainage and wastewater, and restoration of disturbed ground and damaged and demolished paved surfaces.

To obtain efficiencies in the contracting and construction of these repairs, SPU bundles individual, unrelated repairs and full line sewer replacements into a construction bid document. Contractors then bid on the packaged set of repairs and the successful bidder conducts the repairs as specified in contract documents. SPU is currently preparing the 2021 Sewer Rehabilitation Contracts that bundles 19 different sites that consist of 21 spot main repairs (Sites 1 – 19A/19B) and two sewer rehabilitation projects (Sites 20 – 21). See Attachment A for the locations of the spot repairs (Sites 1-19A/19B) and the sewer rehabilitation projects (Sites 20 and 21). Sites 17 and 18 have been removed from the overall project and are not identified on Attachment A. These sites are located in street rights-of-way and easements across the City. Three of the spot main repair sites (Sites 5, 8

and 14) involve pipes larger than 12 inches in diameter and are being reviewed using this SEPA Environmental Checklist for purposes of SEPA compliance. The two sewer rehabilitation project sites (Sites 20 and 21) are covered by previously issued SEPA Determination of Non-Significance and Categorical Exemption from SEPA Threshold Determination, respectively. The remaining 14 sites (all spot main repair projects) involve pipes 12 inches in diameter or less and are the subject of a separate SEPA Exemption Memo and are not evaluated in this SEPA Environmental Checklist.

This SEPA Environmental Checklist applies to Sites 5, 8, and 14. Attachment A is a vicinity map that depicts the general location of these three sites. A summary description of the proposed work at each site is provided below.

- **Site 5:** Replace right lateral connection at approximately 280.4-feet downstream of upstream maintenance hole 041-209 with a new tee. Replace up to 3 linear feet of additional lateral pipe and up to 3 linear feet of additional 18-inch-diameter mainline pipe if needed to make connections to existing pipes. Depth of repair is approximately 21 feet.
- **Site 8:** Replace right lateral connection at approximately 107-feet upstream of downstream maintenance hole 046-048 with a new tee. Replace up to 3 linear feet of additional lateral pipe and up to 3 linear feet of additional 18-inch-diameter mainline pipe if needed to make connections to existing pipes. Depth of repair is approximately 18 feet. SPU will also be replacing approximately 40 linear feet of 8-inch-diameter water main and its appurtenances located above the spot repair.
- **Site 14:** Replace right lateral connection at approximately 50-feet downstream of upstream maintenance hole 058-198 with a new tee. Replace up to 3 linear feet of additional lateral pipe and up to 3 linear feet of additional 15-inch-diameter mainline pipe if needed to make connections to existing pipes. Depth of repair is approximately 12 feet.

A12. 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.

All project sites are located within the City of Seattle and are within street rights -of-way. The addresses for the proposed work are as follows:

- **Site 5:**
 - Work Order Address: 1637 23rd Avenue
 - Repair Location: 23rd Ave – near 1609 23rd Avenue
- **Site 8:**
 - Work Order Address: 821 Lakeside Ave S
 - Repair Location: 801 Lakeside Ave S
- **Site 14:**
 - Work Order Address: 3501 Rainier Avenue S
 - Repair Location: 3501 Rainier Avenue S

B. ENVIRONMENTAL ELEMENTS

B1. 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 project area encompasses multiple sites in the City of Seattle; these three sites are in flatter areas with slopes up to approximately 3 percent.

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 prime farmland.

The general geologic condition of the Puget Sound region is a result of glacial and non-glacial activity that occurred over the course of millions of years. Review of the geologic map covering the project sites (Troost et al. 2005, available at <http://pubs.usgs.gov/of/2005/1252/>) indicates that the project sites are underlain primarily by younger glacial deposits, including Vashon recessional or advance outwash deposits.

Additional information on soils from the above-referenced map and past geotechnical studies at or near the project sites are described below:

Site	Soils
Site 5	Vashon recessional lacustrine deposits
Site 8	Pre-Olympia coarse-grained deposits and landslide deposits
Site 14	Vashon advance outwash deposits and landslide deposits

Urban development in this area over the last 100 years has resulted in a predominance of disturbed native soils/sediments, cut slopes, and placements of fill material. The entire project location and immediately surrounding areas have been completely developed and disturbed in this way. 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 Seattle Department of Construction and Inspections (SDCI) GIS map (<https://seattlecitygis.maps.arcgis.com/apps/webappviewer/index.html?id=f822b2c6498c4163b0cf908e2241e9c2>) indicates:

- Site 8 is in Potential Slide Area (ECA2).
- Site 14 is in Liquefaction Prone Area (ECA5).

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate the source of fill.

Excavation, fill, or grading associated with the proposed work would be minimal and would be for the purposes of conducting necessary spot repairs. Repair work will be focused in existing improved rights-of-way (pavement and gravel). All ground surfaces would be restored to pre-construction conditions following project completion. Backfill materials would include clean fill bedding material. The total volume of excavation for all sites is estimated to be no more than 262 cubic yards (cy); total volume of fill is estimated to be no more than 262 cy. Excavation and backfill are anticipated to balance, resulting in no net change in the existing ground surface. The total area of disturbed ground is estimated to be 2,570 square feet (sf).

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

Because of the limited nature of construction activities, the project presents minimal potential for erosion. Ground disturbance and vegetation trimming will be limited to that required for construction staging and access. Such areas will be located in existing paved areas wherever possible. Erosion and sedimentation could occur as a result of project construction, although this risk is low because most project sites are flat or relatively flat, and temporary erosion and sediment control best management practices (BMPs) would be deployed, inspected, and maintained as needed. Disturbed areas would be restored to their near-original conditions.

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

Most of the proposed work is located within existing impervious areas. Existing paved surfaces damaged by construction would be repaired, but the proposed work would not result in an increase or decrease in impervious surfaces.

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

No filling or excavation would take place in or near shorelines, watercourses, or wetlands and best management practices (BMPs) would be used to protect the existing stormwater drainage systems and to minimize erosion and sedimentation. A temporary erosion and sedimentation control plan would be prepared and implemented. 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 to manage stormwater runoff, construction disturbance, and erosion during construction.

B2. 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 and when the project is completed? If any, generally describe and give approximate quantities if known.**

The proposed work would generate GHG emissions during construction through the operation of diesel- and gasoline-powered equipment and vehicles and in the transportation of materials, equipment, and workers to and from the site. Construction equipment could include hand-held power tools, gasoline and diesel-powered compressors and generators, and gasoline and diesel-powered vehicles to remove existing roadway and utility infrastructure and construct new roadway and utility improvements. These tools would generate GHG emissions due to the combustion of gasoline and diesel fuels, and include oxides of nitrogen, carbon monoxide, particulate matter and smoke, uncombusted hydrocarbons, hydrogen sulfide, carbon dioxide, and water vapor. Other emissions during construction could include fugitive dust from ground-disturbing activities. These effects are expected to be localized, temporary, and minimized.

Total GHG emissions for the proposed work are summarized in the table below; calculations are provided in Attachment B. The estimates provided are based on assumptions for typical numbers of vehicle operations to execute the work. The completed project is not expected to generate GHG emissions through its assumed life expectancy of 100 years. GHG emissions generated during the manufacture of materials (embodied emissions) used in this project are not estimated or otherwise considered in this environmental analysis due to the difficulty and inaccuracy inherent in calculating such estimates.

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
Paving	1,102,300	500
Construction Activities (Diesel)	107,739.9	48.87
Construction Activities (Gasoline)	7,290	3.3
Long-term Maintenance (Diesel)	0	0
Long-term Maintenance (Gasoline)	0	0
Total GHG Emissions	1,217,329.9	552.17

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 may 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.

B3. 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 or water body it flows into.**

There are no surface water bodies on or near these project locations.

- (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.**

There are no surface water bodies on or near these project locations.

- (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.**

No material would be placed in or removed from surface water or wetlands.

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

Stormwater runoff from the project area is directed into the existing combined sewer system. The project would not change the volume, timing, or duration of those discharges.

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

No portion of the project locations lie within the 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.**

No, the project locations would not produce or discharge waste materials to surface waters.

b. Ground:

- (1) Will ground water be withdrawn, or would water be discharged to ground water? If so, give general description, purpose, and approximate quantities if known.**

Yes, dewatering may be required to lower groundwater during construction of the spot repairs.

- (2) Describe waste material that would be discharged into the ground from septic tanks or other sources, if any (e.g., domestic sewage; industrial, containing the following chemicals...; agricultural, etc.). Describe the general size 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 ground water for this project.

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 would this water flow? Would this water flow into other waters? If so, describe.**

Stormwater runoff may need to be managed during construction to prevent sediment from entering and leaving the construction site. Any precipitation that lands on the construction site would be contained on-site and allowed to infiltrate. Barriers such as sand bags would be used to prevent runoff from entering the construction zone. Once construction is complete, temporary erosion control measures would be removed. The completed project would be re-covered with concrete and asphalt, but would not create a need to manage additional stormwater runoff beyond currently existing conditions. Stormwater would follow current (pre-construction) pathways. The current volume, timing, and duration of these stormwater flows are not known.

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

No waste materials from this project would 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 permanent alterations to drainage patterns are anticipated. Site restoration is planned to match existing conditions. The proposed work would not alter or otherwise affect drainage patterns.

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

The project would not create any new impervious surfaces that would create stormwater runoff. No adverse impacts to surface, ground, or runoff water are anticipated. Best management practices, as identified in the applicable BMPs 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.

B4. Plants

a. Types of vegetation found on the site:

<input checked="" type="checkbox"/> Deciduous trees:	<input type="checkbox"/> Alder	<input type="checkbox"/> Maple	<input type="checkbox"/> Aspen	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Evergreen trees:	<input type="checkbox"/> Fir	<input type="checkbox"/> Cedar	<input type="checkbox"/> Pine	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Shrubs				
<input checked="" type="checkbox"/> Grass (mown turf and weeds)				
<input type="checkbox"/> Pasture				
<input type="checkbox"/> Crop or grain				
<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 type="checkbox"/> Other types of vegetation:				

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

Project locations for Sites 5 and 8 are in paved street rights-of-way, including sidewalks. Work at Sites 5 and 8 would not alter or remove vegetation. The project location for Site 14 is within a sidewalk right-of-way, including concrete panels and an unvegetated area. A temporary construction easement (TCE) has been obtained for a vegetated portion of private property that directly abuts the Site 14 project location (in case Site 14 work infringes on this private property). Vegetation within the TCE area that is damaged by construction, staging, or access would be restored to pre-project conditions.

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

According to a review of the Washington Department of Natural Resources (WDNR) Natural Heritage Program’s document called “Sections that Contain Natural Heritage Features, Current as of July 15, 2021” (accessed at www.dnr.wa.gov), there are no documented occurrences of sensitive, threatened, or endangered plant species in or near the work sites. No federally listed endangered or threatened plant species or State-listed sensitive plant species are known to occur within the municipal limits of the City of Seattle.

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

The proposed work would limit plant removal, pruning, and other vegetation disturbance to the minimum required for project site construction. The proposed work at Sites 5 and 8 is in transportation rights-of-ways and would affect paved surfaces outside of street tree canopy drip-lines. The proposed work at Site 14 is in right-of-way and affects paved and un-paved surfaces that are partially within tree canopy drip-lines; however, the Contract requires that work performed within the drip-line of trees be in accordance with the Tree, Vegetation, and Soil Protection Plan (TVSPP) and in accordance with Section 8-01.3(2)B. Site 14 is within a sidewalk

and includes an adjacent unvegetated area. If the vegetation is damaged by construction, then the vegetation would be restored to pre-project conditions.

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

Sites 5 and 8 project locations are in unvegetated paved street rights-of-way, including sidewalks. Site 14 project location is in paved and un-paved sidewalk right-of-way and includes a TCE for the adjacent private property's vegetated area. The King County Noxious Weed Program (available at King County iMap interactive online mapping program, <http://gismaps.kingcounty.gov/iMap/>) identifies no noxious weeds at or near any of the locations.

B5. Animals

a. Birds and animals that have been observed on or near the site or are known to be on or near the site:

Birds:	<input checked="" type="checkbox"/> Hawk	<input checked="" type="checkbox"/> Heron	<input checked="" type="checkbox"/> Eagle	<input checked="" type="checkbox"/> Songbirds
	<input checked="" type="checkbox"/> Other: crow, pigeon, gull			
Mammals:	<input type="checkbox"/> Deer	<input type="checkbox"/> Bear	<input type="checkbox"/> Elk	<input type="checkbox"/> Beaver
	<input checked="" type="checkbox"/> Other: rat, opossum, raccoon, squirrel			
Fish:	<input type="checkbox"/> Bass	<input type="checkbox"/> Salmon	<input type="checkbox"/> Trout	<input type="checkbox"/> Herring
	<input type="checkbox"/> Shellfish	<input type="checkbox"/> Other:		

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

A check of the Washington Department of Fish and Wildlife's "Priority Habitat Species on the Web" database on May 31, 2022, identifies Site 5 is within a known historic occurrence of western pond turtle (*Actinemys marmorata*), a State-listed endangered species. Extant populations of western pond turtle are known from only a handful of locations in Washington, none of which are in or close to the City of Seattle.

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

Seattle is in 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.

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

The proposed work would limit plant removal and other vegetation disturbance to the minimum required for construction. Project work would be performed in accordance with applicable City of Seattle water quality regulations and construction BMPs.

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 the county (<http://www.kingcounty.gov/services/environment/animals-and-plants/biodiversity/threats/Invasives.aspx>).

B6 Energy and Natural Resources

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

No energy would be required to meet the constructed project's energy needs, beyond the energy already utilized for the existing sewer and storm systems. The completed project would not require energy.

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

The proposed project 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.

B7. 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 contractor vehicles 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. Such materials would be stored and handled in accordance with City of Seattle standard specifications and requirements. Though unlikely, contaminated soils, sediments, or groundwater could also be exposed. 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.

No contamination of soil or groundwater has been identified.

- (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.**

There are no known hazardous chemicals/conditions that might affect project development and design.

- (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.**

Environmental health hazards likely to be present during construction include gasoline and diesel fuels, hydraulic fluids, oils, lubricants, solvents, paints, and other chemical products. A spill of one of these chemicals could potentially occur during construction because of equipment failure or worker error. Such materials would be stored and handled in accord with City of Seattle standard specifications and requirements.

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

No special emergency services such as confined space rescue would be anticipated during construction or typical operation of the project. Possible fire or medic services could be required during project construction, as well as possibly during operation of the completed project. However, the completed project would not demand higher levels of special emergency services than already exist at the project location.

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

The construction contractor would be required to develop and implement a Spill Plan to control and manage spills during construction. During construction, the contractor would use standard operating procedures and BMPs 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. In addition, a spill response kit will be maintained at each site during construction work at that site, and all project site workers would be trained in spill prevention and containment consistent with the City of Seattle's Standard Specifications for Road, Bridge, and Municipal Construction.

Additionally, workers would be required to follow State of Washington safety standards for entry and work in confined spaces (WAC Chapter 296-809), which includes requirements for atmospheric testing in a confined space structure prior to entry and work in the structure. SPU workers operating and maintaining the completed project would be required to follow requirements of SPU's Confined Space Safety Program, which implements requirements of WAC Chapter 296-809.

b. Noise

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

Noises that exist in the area from traffic, businesses and residences 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 near project 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. SPU expects construction would require 20 working days. For any expected construction planned outside of these noise windows, the construction contractor will be required to apply for noise and work variances through the City of Seattle.

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

Construction of the project would comply with requirements of applicable noise control laws and regulations addressing maximum noise levels and the days/hours during which noise-generating construction work is allowed, including the Washington State Noise Control Act of 1974 (70.107 RCW), the implementing Maximum Environmental Noise Level regulations adopted by the Washington State Department of Ecology (Chapter 173-60 WAC), City of Seattle Noise Control regulations (SMC Chapter 25.08), and/or other applicable noise ordinances and regulations.

SPU and its contractors are required to comply with the Washington Industrial Safety and Health Act of 1973 (Chapter 49.17 RCW) and implement Hearing Loss Prevention regulations adopted by the Washington Department of Labor and Industries (Chapter 296-817 WAC) to limit construction worker noise exposure. Actions taken to achieve this, while used primarily to limit construction worker noise exposure, may also help reduce or mitigate overall noise levels emanating from the project sites and may include pre-planning site work to minimize magnitude and duration of on-site construction operations; selecting the quietest/smallest equipment able to do the job; installing noise mufflers on engines and high pressure air exhausts; using temporary barriers and equipment covers; and ensuring construction equipment is properly maintained by changing seals, lubricating machinery contact surfaces, and replacing worn parts.

B8. 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.**

Current land use at project sites include single and multifamily residential buildings and businesses. The proposed work would be in improved public transportation rights-of-ways. Proposed work could result in short-term, temporary street/bike lane and sidewalk closures, and/or route detours for streets or sidewalks that would be experienced by individuals who live, work, or visit destinations on or near the project.

- 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 sites have not been recently used as working farmlands or forest lands. The project would not result in any 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 sites.

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

The project involves existing, buried sewer and stormwater infrastructure and other utilities in improved street rights-of-way and SPU utility easements. Other structures in the vicinity of project sites include street signs and utility poles, residential/business structures, and fences, and are not associated with the project.

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

There are no above-grade building structures in the right-of-way where the project is located. No building structures would be demolished but some below-grade water main segments would be removed and replaced. Water main removal and replacement is required at Site 8 to facilitate access to the sewer spot repair. The sewer that the spot main repair is occurring on is parallel to and directly beneath the existing water main, and so the water main must be cut/capped and temporarily removed to facilitate access to the sewer. After spot main repair work is done on the sewer, the portions of the water main and its appurtenances that were removed will be replaced as they were prior to construction. All removed, demolished, or damaged street pavement, curbs, and curb ramps would be replaced. While the project does not expect to damage or demolish sidewalks, light poles, signage, and related appurtenances, any such damaged features would be replaced.

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

Site 5: Lowrise, Multi-family
Site 8: Single Family
Site 14: Commercial

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

Site 5: Residential Urban Village
Site 8: Neighborhood Residential
Site 14: Hub Urban Village

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

The project locations are not in a Shoreline Management District.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

The Seattle Department of Construction and Inspections (SDCI) GIS map (<https://seattlecitygis.maps.arcgis.com/apps/webappviewer/index.html?id=f822b2c6498c4163b0cf908e2241e9c2>) indicates:

- Site 5 is not in any ECA area
- Site 8 is within a Potential Slide Area – ECA2 and adjacent to a Steep Slope Area – ECA1
- Site 14 is within a Liquefaction Prone Area – ECA5

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

No people would reside or work in the completed project because the project locations are within improved public street rights-of-way.

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

No people would be displaced by the project.

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

There are no mitigation measures proposed because there are no adverse impacts related to displacement.

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

The project would be compatible with existing and projected land uses and plans. 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.

B9. Housing

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

The proposed 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 proposed project would not remove 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.

B10. 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 building structures or other above-ground structures are proposed.

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

No views would be altered or obstructed by the project. The project would be located at or below existing street grades.

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

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

B11. Light and Glare

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

The constructed project would not produce light or glare. No new street lights are proposed or required. During construction, if an emergency situation calls for 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 produce 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 the contractor elects to work after-dark, portable lighting would be adjusted as feasible to minimize glare. A lighting plan will be at the discretion and approval of SDOT Inspectors.

B12. Recreation

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

Sidewalks in the project locations allow for informal recreation such as walking, jogging, and cycling. Roadways affected by the proposed work allow for recreational activity such as walking, jogging, and cycling.

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

The proposed work would not permanently displace existing recreational uses. Project construction activities could result in short-term, temporary access impacts, such as temporary street closures or detours affecting vehicle, bike, and pedestrian routes/access. The project would ensure safe pedestrian and vehicle access is maintained at all times consistent with approved traffic control plans required as part of SDOT's street use permitting process.

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

The project may have short-term, temporary impacts to parking, vehicle access, and recreational activity due to temporary travel lane and/or street closures or detours. Project notifications through website updates, emails, and mailings would provide affected residents with advance notice regarding temporary closures and detours.

B13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

The proposed work would not affect any qualifying buildings, structures, or known cultural resources. This project would affect only City of Seattle existing roadway assets and municipal water system assets. None of those objects are considered historically or culturally significant.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

There are no known landmarks, features, or other evidence of Indian or historic use or occupation, including human burials or old cemeteries. No historic-period or pre-contact material evidence, artifacts, or areas of cultural importance are known in

any of the sites. According to the Washington Information System for Architectural and Archaeological Records Data (WISSARD) landscape Predictive Model based on environmental factors, the Project sites are in areas with moderate to high risk of potential archaeological resources. The proposed work would disturb areas which have been previously disturbed and filled by construction of roadways and utilities. The work's locations on previously disturbed and filled ground significantly reduces the chance of encountering contextually significant archaeological materials.

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, State of Washington Heritage, or City of Seattle Landmark properties are in or adjacent to the Project, the Project site was checked against the following registers:

- Washington Information System for Architectural & Archaeological Research Data (WISAARD) maintained by the Washington State Department of Archaeology and Historic Preservation (<https://wisaard.dahp.wa.gov/>)
- King County and City Landmarks List maintained by the King County Historic Preservation Program, (https://www.kingcounty.gov/~media/services/home-property/historic-preservation/documents/resources/T06_KCLandmarkList.ashx?la=en)
- Landmark List, and Map of Designated Landmarks, maintained by the City of Seattle Department of Neighborhoods (<http://www.seattle.gov/neighborhoods/programs-and-services/historic-preservation/landmarks/landmarks-map>)

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 not affect buildings or known cultural resources and involve no ground-disturbing activity. Only portions of SPU's existing sewer and stormwater systems would be affected. None of those objects are considered historically or culturally important. Additionally, the proposed work is located on previously disturbed and filled upland areas. The project's location on previously disturbed and filled ground and avoidance of ground-disturbing activity eliminate any likelihood of encountering contextually significant archaeological materials.

B14. Transportation

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

All sites are in existing public street rights-of-way. Staging areas would be within 200 feet of each maintenance hole on existing street rights-of-way or utility easements where possible. Street closures and traffic control would be required for access to maintenance holes located in the street right-of-way.

- 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 proposed project at Sites 5, 8, and 14 all require temporary closure of one or more lanes within transit routes; however, it is anticipated that public transit will be maintained around the lane closures. No transit stops are within the vicinity of any of the project sites. The nearest transit stop to Site 5 is approximately 200 feet south of the work area. The nearest transit stop to Site 14 is approximately 470 feet north of the work area. There is no nearby transit stop to Site 8.

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

The completed project would neither create nor eliminate any parking spaces, although there may be temporary parking closures. The specific timing and duration of parking closures are not known at this time, but such closures would comply with relevant policies and requirements administered by SDOT.

- 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)**

The project would restore any demolished and damaged street panels, curbs, gutters, and curb ramps to pre-construction conditions or better. No new roads or streets would be constructed as part of the project.

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

The proposed project would not use or occur near 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 non-passenger vehicles). What data or transportation models were used to make these estimates?**

Project construction would generate approximately 60 vehicle round-trips due to workers and materials being transported to and from the site during the construction period. Most of those trips would occur during business hours (between 7 am and 6 pm) on weekdays (Mondays through Fridays). The completed

project would not require additional maintenance and inspections trips beyond those which currently occur.

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 proposal is not expected to interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area.

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

Standard construction signs and flagging would be used to ensure worksite safety and reduce any temporary transportation impacts. Access for emergency-response vehicles would be maintained at all times. Project work at both sites would comply with applicable construction traffic management requirements administered by SDOT.

B15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, 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 the affected streets. Emergency access would comply with relevant policies administered by SDOT.

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 for structures accessed via affected streets. Otherwise, no mitigation is being proposed because the project would have no adverse impacts on public services.

B16. Utilities

a. Check utilities available at the site, if any:

- | | | | |
|--|--|---|--|
| <input checked="" type="checkbox"/> Electricity | <input checked="" type="checkbox"/> Natural gas | <input checked="" type="checkbox"/> Water | <input checked="" type="checkbox"/> Refuse service |
| <input checked="" type="checkbox"/> Telephone | <input checked="" type="checkbox"/> Sanitary sewer | <input type="checkbox"/> Septic system | |
| <input checked="" type="checkbox"/> Other: Fiber/Cable | | | |

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 new utilities are being proposed. Brief interruptions of water and/or sewer service would be required when existing services are disconnected and/or connected. SPU would notify affected residents and businesses by issuing Service Disruption Notices (in the form

of door hangers) at least 48 hours before those outages occur. No interruptions of other utilities or services are anticipated during construction.

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: _____
Arnel Valmonte, Project Manager

Attachment A: Vicinity Map

Attachment B: Greenhouse Gas Emissions Worksheet

Attachment A: Vicinity Map of All Sites 2021 Sewer Rehabilitation Project



Attachment B: Greenhouse Gas Emissions Worksheet

Section I: Buildings						
Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet	Emissions Per Unit or Per Thousand Square Feet (MTCO ₂ e)			Lifespan Emissions (MTCO ₂ 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
TOTAL Section I Buildings						0

Section II: Pavement						
						Emissions (MTCO ₂ e)
Concrete/Asphalt (50 MTCO ₂ e/1,000 sq ft of pavement, 6 inches thick)*		5000 sq ft	12 inches thick			500
TOTAL Section II Pavement						500

*King County SEPA GHG emissions Worksheet Bulletin 26, Version 1.7, December 26, 2007

Section III: Construction						
(See detailed calculations below)						Emissions (MTCO ₂ e)
TOTAL Section III Construction						52.17

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

TOTAL GREENHOUSE GAS (GHG) EMISSIONS FOR PROJECT (MTCO₂e)						
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Sewer Rehabilitation Project (Sites 5, 8 & 14)
SEPA Environmental Checklist

Section III Construction Details		
Construction: Diesel		
Equipment	Diesel (gallons)	Assumptions
Backhoe/Excavator	2,500	125 hours x 20 gallons/hour (345 hp engine)
Vibratory Roller	8	10 hours x 0.8 gallons/hour (185 hp engine)
Dump Truck and Pup (17 CY per load)	125	25 round trips x 25 miles/round trip ÷ 5 mpg
Concrete/Asphalt truck (10 cubic yard capacity)	100	20 round trips x 25 miles/round trip ÷ 5 mpg
Front-end Loader	875	125 hours x 7 gallons/hour (345 hp engine)
Case 580 (concrete/asphalt demo)	250	125 hours x 2 gallons/hour
Flat-bed Truck	200	20 round trips x 50 miles/round trip ÷ 5 mpg
Subtotal Diesel Gallons	4,058	
GHG Emissions in lbs CO₂e	107,739.9	At 26.55 lbs CO ₂ e per gallon of diesel
GHG Emissions in metric tons CO₂e	48.87	1,000 lbs = 0.45359237 metric tons

Construction: Gasoline		
Equipment	Gasoline (gallons)	Assumptions
Pick-up Trucks	300	30 workdays x 5 trucks x 2 round-trip/day x 20 miles/ round trip ÷ 20 mpg
Subtotal Gasoline Gallons	300	
GHG Emissions in lbs CO₂e	7,290	At 24.3 lbs CO ₂ e per gallon of gasoline
GHG Emissions in metric tons CO₂e	3.3	1,000 lbs = 0.45359237 metric tons

Construction Summary		
Activity	CO ₂ e in pounds	CO ₂ e in metric tons
Diesel	107,739.9	48.87
Gasoline	7,290	3.3
Total for Construction	105,415.88	52.17

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

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

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