SEATTLE PUBLIC UTILITIES
SEPA ENVIRONMENTAL CHECKLIST

This SEPA environmental review of Seattle Public Utilities' (SPU) Water Main Rehabilitation Package 5 Project (Site 6) 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:

Water Main Rehabilitation Package 5 Project (Site 6)

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:

August 24, 2021

A5. Agency requesting checklist:

Seattle Public Utilities (SPU)

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

The project at Site 6 described in this Checklist is expected to take up to 1.5 months (30 working days). Project construction is scheduled to begin in the summer of 2022 and be complete by early to mid-2024. The new water main is expected to be in service on or around the end of 2023.

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

SPU currently has no plans for future additions or expansions related to the proposed project.

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

No environmental information has been prepared that is related to 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 property covered by this proposal.

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

Work at Site 6 may require some or all of the following permits and approvals:

- City of Seattle, Department of Transportation (SDOT), Major Utility Permit (type 51, major projects)
- SDOT, Street Use Permit (type 31, construction use)

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.)

SPU owns and maintains nearly 1,700 miles of pipes in the City of Seattle's drinking water distribution system and service area. All water main segments in the distribution system are periodically screened for leakage. Potential candidates for pipe rehabilitation are primarily identified by monitoring a main's leak/break rate (failure rate). In addition to conventional 'cut and cover' pipe replacement methods, rehabilitation may include trenchless lining (such as cured-in-place pipe [CIPP] and horizontal directional drilling [HDD], or other methods) and use of alternative pipe materials.

To obtain efficiencies in contracting and constructing these water main rehabilitations, SPU sometimes bundles work at multiple locations into a single construction bid document. Contractors then bid on the bundled work and the successful bidder performs the work as specified in contract documents. For this reason, SPU is currently preparing Water Main Rehabilitation Package 5, which bundles 10 rehabilitation sites located in street rights-of-way across the City of Seattle (Attachment A). One of those sites (Site 6, 4th Ave between Dexter Ave N and Newell St) involves pipes larger than 12 inches in diameter and is being reviewed using this SEPA Environmental Checklist for purposes of SEPA compliance (Attachment B). The other 9 sites in Package 5 involve pipes 12 inches in diameter or less and are the subject of a separate SEPA Exemption Memo and are not evaluated in this Environmental Checklist.

The proposed work at Site 6 would install approximately 600 lineal feet of new 8-inch and 20-inch diameter ductile, restrained-joint water main east of the centerline of 4th Ave N spanning north-south. That work would remove/replace approximately 80 lineal feet of 20-inch cast iron water main in Dexter Ave N. The new water main would be connected to the existing 20-inch dimeter cast iron main in Dexter Ave N and to the existing 8-inch diameter cast iron main at Newell St. New pipework would be installed using standard cut-and-cover methods. Work includes installation of temporary bypass pipes and temporary services, valves, pressure sensors, SCADA equipment in a new 7-foot by 7-foot

buried vault, thrust blocks, and other appurtenances. The proposed work would also remove one existing hydrant assembly and install one new hydrant assembly at the southeast corner of the intersection of Dexter Ave N and 4th Ave N. Generally, affected existing water services would be replaced with copper pipe 2 inches in diameter or less and transferred to the new main. Approximately 160 lineal feet and approximately 367 lineal feet of 2-inch diameter galvanized iron water main would be cut, capped, and abandoned in place in Fulton St and in 4th Ave N, respectively. All demolished and damaged pavements would be restored as required by SDOT, including up to 6 existing curb ramps.

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.

Site 6 is in improved public street rights-of-way in the North Queen Anne neighborhood of the City of Seattle (zip code 98109) (Attachment A). The project includes rights-of-way for 4th Ave N between Newell St and Dexter Ave N and portions of rights-of way for Dexter Ave N, Fulton St, and Newell St. There is no street address for this project. Site 6 is in the northwest quarter of Section 19, Township 25N, Range 4E and within the Cedar-Sammamish Water Resource Inventory Area (WRIA 8).

B. ENVIRONMENTAL ELEMENTS

B1. Earth

a. General description of the site:

☐ Flat ☐ Rolling ☐ Hilly ☒ Steep Slopes ☐ Mountainous
☐ Other:

The existing grade along 4th Ave N is steep with a negative slope south to north beginning at Newell St.

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

Site 6 is located on a steep grade exceeding 20 percent. The entire project location is in a Potential Slide Environmentally Critical Area (ECA) and portions are in Steep Slope and Steep Slope Buffer ECAs associated with slopes exceeding 40 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.

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 area have been completely developed and disturbed in this way. The area has not been used for agricultural purposes.

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

Site 6 is located on a steep grade exceeding 20 percent. The entire project location is in a Potential Slide Environmentally Critical Area (ECA) and portions are in Steep Slope and Steep Slope Buffer ECAs associated with slopes exceeding 40 percent.

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

Project construction would require the excavation of approximately 400 cubic yards of soil and backfilling with approximately 355 cubic yards of pipe bedding and other fill material. The fill will come from an SPU-approved borrow site. At this time, about 100 cubic yards of spoil are expected to be exported from the project area. All exported excavated material would be disposed of at an SPU-approved upland location or used as fill material (if suitable) at sites approved for filling and grading.

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

No significant erosion is anticipated during or as a result of the proposed work. A temporary erosion and sedimentation control plan would be prepared and implemented. The completed project would be covered by concrete and asphalt.

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

The proposed project would demolish approximately 5,100 square feet of currently existing impervious surface (such as pavement, sidewalk, and curb, and gutter) and replace it with the same area of impervious surface (hot mix asphalt and concrete). There would be no new impervious surfaces. No currently pervious surfaces would be replaced with new impervious surfaces.

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

A temporary erosion and sedimentation control plan would be prepared and implemented. Best Management Practices (BMPs) as identified in the City of Seattle's Stormwater Code SMC 22.800 – 22.808, Director's Rule: 2009-004 SPU/16-2009 Department of Planning and Development (DPD), and Volume 2 Construction Stormwater Control Technical Requirements Manual would be used to manage stormwater runoff, construction disturbance, and erosion as needed 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 at Site 6 are summarized in the table below; calculations are provided in Attachment C. 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_2e)[1]	GHS Emissions (metric tons of CO_2e)[1]
Buildings	0	0
Paving	1,124,550	510
Construction Activities (Diesel)	8,041	3.6
Construction Activities (Gasoline)	7,290	3.3
Long-term Maintenance (Diesel)	0	0
Long-term Maintenance (Gasoline)	0	0
Total GHG Emissions	**1,139,881**	**516.9**

[1] Note: 1 metric ton = 2,204.6 pounds of CO_2e. 1,000 pounds = 0.45 metric tons of CO_2e

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 this project location. The Lake Washington Ship Canal is more than 200 feet northeast of the project location.

(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 this project location. The Lake Washington Ship Canal is more than 200 feet northeast of the project location.

(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.

There are no surface water bodies on or near this project location. The Lake Washington Ship Canal is more than 200 feet northeast of the project location. 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 lies 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.

The project 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.

No ground water would be withdrawn, discharged, or surcharged as a result of this project.

(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.

d. Proposed measures to reduce or control surface, ground, and runoff water 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 22.800 – 22.808, Director's Rule: 2009-004 SPU/16-2009 DPD, and Volume 2 Construction Stormwater Control Technical Requirements 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:

☒ Deciduous trees: ☐ Alder ☒ Maple ☐ Aspen ☒ Other: street trees; black cottonwood
☐ Evergreen trees: ☐ Fir ☐ Cedar ☐ Pine ☐ Other:
☐ Shrubs
☒ Grass (mown turf and weeds)
☐ Pasture
☐ Crop or grain
☐ Wet soil plants: ☐ Cattail ☐ Buttercup ☐ Bulrush ☐ Skunk cabbage ☐ Other:
☐ Water plants: ☐ water lily ☐ eelgrass ☐ milfoil ☐ Other:
☐ Other types of vegetation:

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

Street trees are present in the improved street rights-of-way affected by this project. Construction of the proposed project would not remove any vegetation. Trees in the right-of-way may need to be pruned to accommodate project construction. Trenching may also damage the root zones below the driplines of those trees.

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 January 12, 2021" (accessed at www.dnr.wa.gov), there are no documented occurrences of sensitive, threatened, or endangered plant species in this Section. 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. Site 6 has been intensively disturbed by development and redevelopment over the last 100 years and has been extensively excavated, filled, paved, or occupied by street and other built structures. There is no habitat for threatened or endangered plants. 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 project would limit pruning to that required for project construction and would restore ground-disturbed areas. Mitigation for root zone disturbance would be determined in cooperation with SDOT as part of that Department's issuance of permits for this project.

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

The site is mostly unvegetated paved street ROW, including sidewalks and shoulders. However, numerous weeds are present in adjacent vegetated areas. Himalayan blackberry (*Rubus armeniacus*), English ivy (*Hedera helix*), and knotweed (*Fallopia japonica*) are present in upland habitats in the project environs. According to the

'Noxious Weed' data layer in King County's iMap website, there are no regulated Class A, B, or C noxious weed species on or near Site 6.

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: ☒ Hawk ☒ Heron ☒ Eagle ☒ Songbirds ☒ Other: crow, pigeon, gull

Mammals: ☐ Deer ☐ Bear ☐ Elk ☐ Beaver ☒ Other: rat, opossum, raccoon, squirrel

Fish: ☐ Bass ☐ Salmon ☐ Trout ☐ Herring ☐ Shellfish ☐ Other:

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

The project site is more than 200 feet southwest of the Lake Washington Ship Canal. Endangered Species Act listed species for the Ship Canal in Puget Sound (PS) are Chinook salmon (*Oncorhynchus tshawytscha*, Threatened PS), steelhead (*O. mykiss*, Threatened PS), and bull trout (*Salvelinus confluentus*, Threatened PS). Because the project is not proposing any 'in water' work, the project is expected to have no adverse effect on any fish or shellfish species.

The Washington Department of Fish and Wildlife Habitat and Species map (June 2021) for the project area indicates Site 6 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. The site is known to be (but not mapped as being) within the habitat of bald eagle (*Haliaeetus leucocephalus*) and great blue heron (*Ardea herodias*)—priority species in Washington. There are no known nests for these species near the project.

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. The Lake Washington Ship Canal is more than 200 feet northeast of the project location and is an important migration route for many animal species.

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

This project would use BMPs and conservation measures, as identified in the City of Seattle's Stormwater Code SMC 22.800 – 22.808, Director's Rule: 2009-004 SPU/16-2009 DPD, and Volume 2 Construction Stormwater Control Technical Requirements Manual, to generally protect fish and wildlife. For example, equipment to be used for construction activity would be cleaned and inspected before it arrives at the project site to avoid and minimize the potential for fuel or lubricant leaks.

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).

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.*

The completed project would not require any supplementary energy to operate because it would rely on gravity-driven water flow.

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.

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:

Site 6 is not known to have any environmental health hazards. 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. If disturbed soils contain contaminated substances at higher than anticipated levels, it could expose construction workers and potentially other individuals in the vicinity through fugitive dust, stormwater runoff, and/or vapors.

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

Site 6 is not known to have potential contamination from present or past uses.

(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.

Site 6 is not known to have 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.

Fire and/or medic services could be required during Project construction. The completed project would not demand higher levels of special emergency services than already exist. Typical emergency services required for medical emergencies are provided by the Seattle Fire Department. Typical security services are provided by the Seattle Police Department and SPU's contractor during project construction.

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

No such measures are proposed; there would be no environmental health hazards.

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 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 activities. Short-term noise from construction equipment would be limited to the allowable maximum levels of City of Seattle's Noise Control Ordinance (SMC Chapter 25.08).

Per SMC 25.08, elevated noise from construction equipment would be allowed only between the hours of 7 am and 10 pm weekdays, and between 9 am and 10 pm on weekends and legal holidays. For this project, construction typically would take place between 7 am to 6 pm on weekdays, except for emergencies that may occur before or after those times. There would be no additional noise after completion of the project except for periodic inspection, maintenance, and renovation activity.

(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 while the project is being constructed and during operations, except for emergencies.

B8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The proposed project is located in improved public rights-of-way used for vehicle and pedestrian travel, and parking. Adjacent property uses are single family residential.

b. Has the site been used for agriculture? If so, describe.

The site has not been used for agricultural purposes for at least 80 years, if at all.

c. Describe any structures on the site.

The only aboveground structures in the right-of-way at the project location include light poles, street signs, and other traffic and pedestrian-related appurtenances.

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 water main segments would be demolished or abandoned. 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?

The entire project location is currently zoned LR2, a Multifamily Residential zone where residential development such as townhouses, rowhouses, and apartments are allowed. The project is adjacent to a C2-55 zone, a Mixed-Use zone where both residential and commercial development are allowed.

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

The current comprehensive plan designation of the site is Multi-family Residential. The site is adjacent to a Commercial Mixed Use designation.

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

The project location does not have Shorelines of the State. The Shoreline District for Lake Washington Ship Canal (which is a Shoreline of the State) is 50 feet northeast of the project location.

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

The City of Seattle Department of Construction and Inspections has identified portions of Site 6 as having Steep Slope, Steep Slope Buffer, and Potential Slide ECAs.

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 location is located in 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 proposed project is consistent with current land uses and plans.

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:

There would be no adverse aesthetic impacts as a result of this project.

B11. Light and Glare

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

The project would be constructed during daylight hours. The completed project would not produce light or 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:

Because neither the completed project nor its construction would produce light or glare, no mitigation measures are being proposed.

B12. Recreation

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

There are no designated recreational opportunities in the immediate vicinity. 4th Ave N, Dexter Ave N, Fulton Ave, and Newell Ave are all used by pedestrians, joggers, and bicyclists. The project is immediately west of the Northeast Queen Anne Greenbelt—a greenspace owned and managed by the Seattle Department of Parks and Recreation.

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

Project construction would temporarily displace pedestrians, joggers, and bicyclists from 4th Ave N, Dexter Ave N, Fulton Ave, and Newell Ave. The proposed project would not interfere with access or use of parks or other recreational sites and would not permanently displace any existing recreational uses.

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

Construction of the proposed project would require temporary lane closures. Such closures would comply with relevant policies administered by SDOT as part of the Street Use permitting process. There are numerous route alternatives for pedestrians, joggers, and bicyclists in the neighborhood. The project does not anticipate any sidewalk closures or pedestrian detours. Also, the project would deploy Seattle Police Department traffic control officers as needed at Dexter Ave N. Because the proposed project does not have any permanent recreational impacts, no measures to reduce or control recreational impacts are required.

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 from or near Site 6. 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 High Risk of inadvertent discovery of archaeological resources. The proposed work would disturb upland areas previously disturbed and filled by construction of roadway and utilities. The work's location on previously disturbed and filled ground 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 on June 10, 2021:

- 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, accessed May 6, 2021 http://www.seattle.gov/neighborhoods/programs-and-services/historic-preservation/landmarks/landmarks-map

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

The proposed work would not affect buildings or known cultural resources. The proposed work would affect only City of Seattle existing roadway assets and

municipal water system assets. None of those objects are considered historically or culturally significant. Based on the Washington State Department of Archaeological and Historic Preservation's landscape Predictive Model, Site 6 is in an area with High Risk of inadvertent discovery of archaeological resources. The proposed work would disturb upland areas previously disturbed and filled by construction of roadway and utilities. The work's location on previously disturbed and filled ground reduces the chance 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.

The project is located on improved public street rights-of-way that include 4th Ave N (classified by SDOT as a Neighborhood Yield Street), Dexter Ave N (a Minor Arterial), Fulton St (a Neighborhood Yield Street), and Newell St (a Neighborhood Yield Street). Primary access to Site 6 would be via Dexter Ave N.

b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The area is served by Metro bus routes 31, 32, 40, and 62. Nearby bus stops serving those routes are on Westlake Ave N approximately 25 feet north of the project site and on Dexter Ave N approximately 175 feet southeast of the project site.

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

Due to the need to stage construction within street rights-of-way and to bury the new pipe in those streets, one travel lane and/or parking lane of affected streets would experience temporary closures. Parking associated with street rights-of-way in the project location is currently on-street, free parking managed by SDOT. Parking would be temporarily closed on affected streets near construction. Project construction would temporarily eliminate up to approximately 30 on-street public parking spaces at any point in time for that duration to accommodate contractor vehicles, mobilization, construction, and local and through access. There are ample on-street parking spots available elsewhere in the project vicinity and most residences in this area have off-street parking. The specific timing and duration of parking and lane closures are not known at this time, but such closures would comply with relevant policies administered by SDOT as part of the Street Use permitting process.

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 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 400 vehicle round-trips due to workers and materials being transported to and from the site during the total 30 working day 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 generate vehicle round trips because the project is not expected to require maintenance over the project's 100 year lifespan.

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.

There would be no such transportation impacts. Access for emergency-response vehicles would be maintained at all times. No alternative routes for pedestrians, bicyclists, and those with disabilities would be required.

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

Temporary travel lane and parking lane closures are not expected to adversely vehicular traffic or bus routes. Work would occur between peak travel times as allowed by SDOT. Traffic detours, temporary lane closures, and emergency access would comply with relevant policies administered by SDOT as part of the Street Use permitting process. The project would be required to prepare a traffic control plan as part of that permitting process.

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 as part of the 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 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:

☒ Electricity ☒ Natural gas ☒ Water ☒ Refuse service
☒ Telephone ☒ Sanitary sewer ☐ Septic system
☒ 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.

☒ **None**

No new utilities are being proposed. Brief interruptions of water service would be required when existing water services are connected to the new water main. No interruptions of other utilities or services are anticipated as a result of project construction.

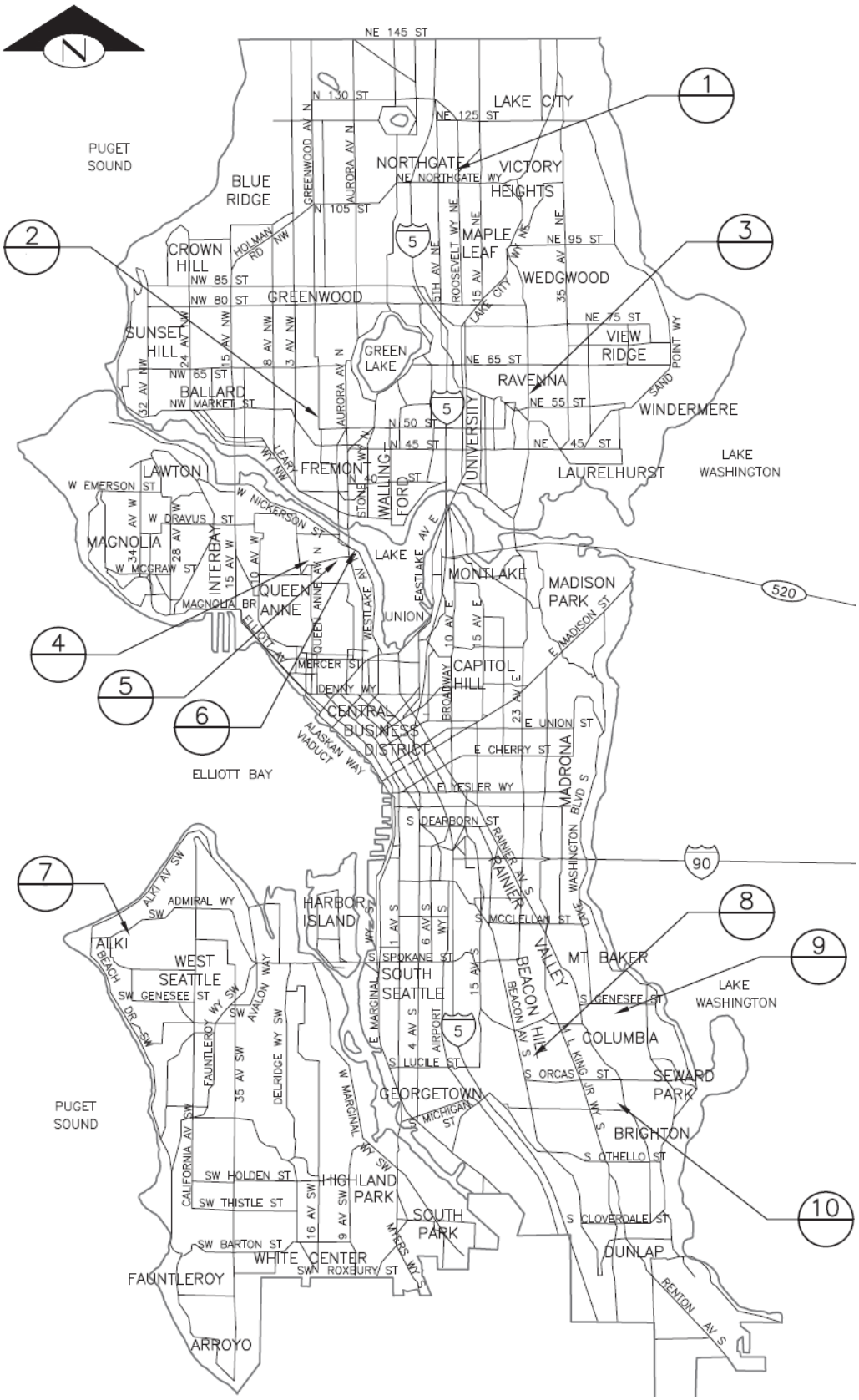
C. SIGNATURE

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.

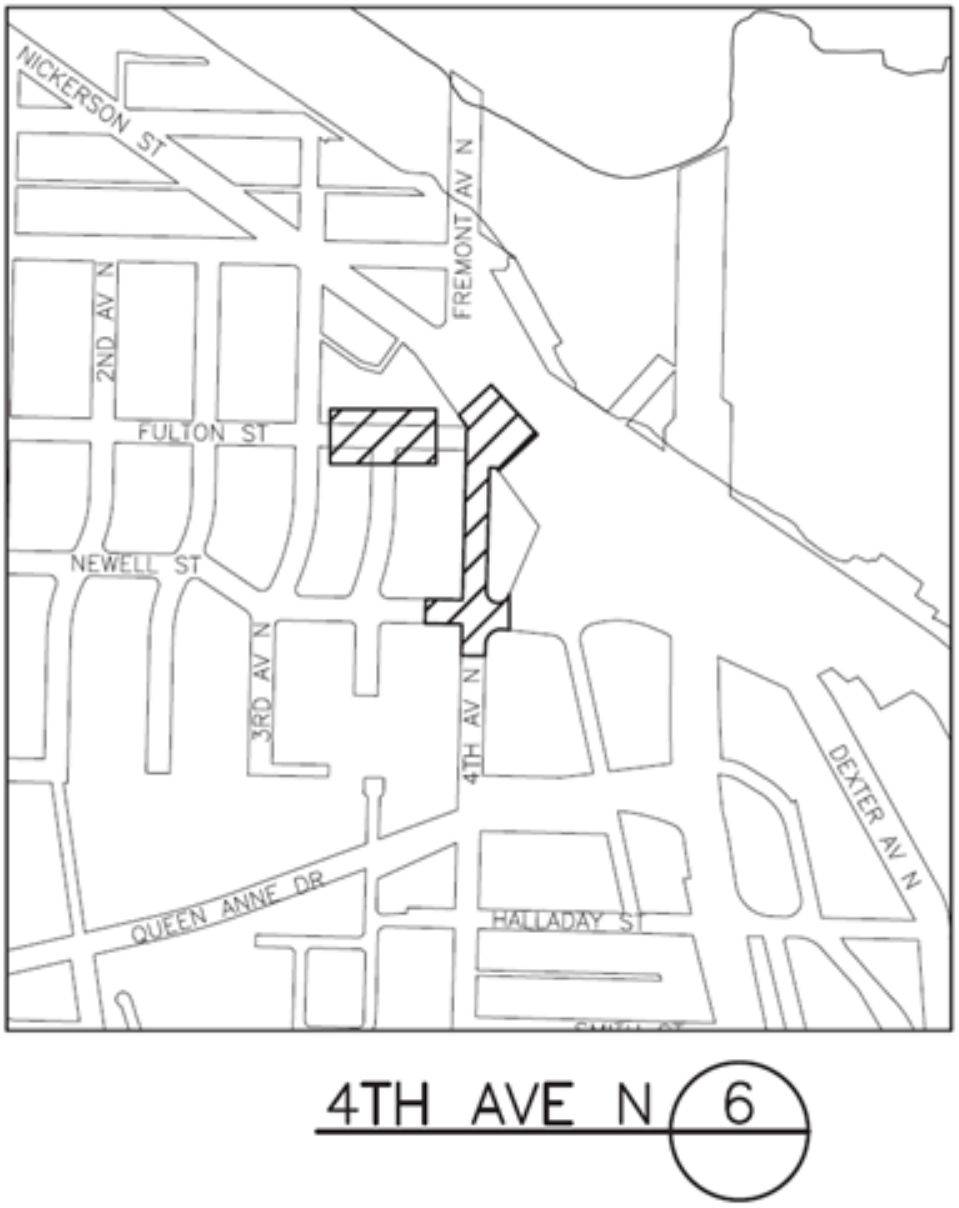
Signature: Valerie T. Tokumoto Digitally signed by Valerie T. Tokumoto Date: 2021.08.24 12:50:46 -07'00'

Valerie Tokumoto, Project Manager

Attachment A: Vicinity Map of All Sites in Water Main Rehabilitation Package 5



Attachment B: Project Location (Site 6)



Attachment C: Greenhouse Gas Emissions Worksheet

Section I: Buildings

			Emissions Per Unit or Per Thousand Square Feet ($MTCO_2e$)			
Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet	Embodied	Energy	Transportation	Lifespan Emissions ($MTCO_2e$)
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 ($MTCO_2e$)
Concrete/Asphalt (50 $MTCO_2e$/1,000 sq ft of pavement, 6 inches thick)*		5,100 sq ft 12 inches thick				510
					TOTAL Section II Pavement	**510**

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

Section III: Construction

	Emissions ($MTCO_2e$)
(See detailed calculations below)	
TOTAL Section III Construction	**51.3**

Section IV: Operation and Maintenance

	Emissions ($MTCO_2e$)
(See detailed calculations below)	
TOTAL Section IV Operations and Maintenance	**NA**

TOTAL GREENHOUSE GAS (GHG) EMISSIONS FOR PROJECT ($MTCO_2e$)	

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	3,983	
GHG Emissions in lbs CO_2e	8,041	At 26.55 lbs CO_2e per gallon of diesel
GHG Emissions in metric tons CO_2e	3.6	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 CO_2e	7,290	At 24.3 lbs CO_2e per gallon of gasoline
GHG Emissions in metric tons CO_2e	3.3	1,000 lbs = 0.45359237 metric tons

Construction Summary		
Activity	**CO_2e in pounds**	**CO_2e in metric tons**
Diesel	8,041	3.6
Gasoline	7,290	3.3
Total for Construction	15,331	**6.9**

Section IV Long-Term Operation and Maintenance Details		
Operation and Maintenance: Diesel		
Equipment	**Diesel (gallons)**	**Assumptions**
Subtotal Diesel Gallons		
GHG Emissions in lbs CO_2e		At 26.55 lbs CO_2e per gallon of diesel
GHG Emissions in metric tons CO_2e		1,000 lbs = 0.45359237 metric tons

Operation and Maintenance: Gasoline		
Equipment	**Gasoline (gallons)**	**Assumptions**
Subtotal Gasoline Gallons		
GHG Emissions in lbs CO_2e		At 24.3 lbs CO_2e per gallon of gasoline
GHG Emissions in metric tons CO_2e		1,000 lbs = 0.45359237 metric tons

Operation and Maintenance Summary		
Activity	**CO_2e in pounds**	**CO_2e in metric tons**
Diesel		
Gasoline		
Total Operations and Maintenance		