SEATTLE PUBLIC UTILITIES SEPA ENVIRONMENTAL CHECKLIST

This SEPA environmental review of Seattle Public Utilities' 430 Pipeline Project 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

1. Name of proposed project:

430 Drinking Water Transmission Pipeline Project

2. Name of applicant:

Seattle Public Utilities

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

Andrew Karch, Project Manager Seattle Public Utilities Project Delivery and Engineering Branch Seattle Municipal Tower, Suite 4900 P.O. Box 34018 Seattle, WA 98124-4018 (206) 684-4643

4. Date checklist prepared:

July 10, 2019

5. Agency requesting checklist:

Seattle Public Utilities (SPU)

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

Construction is currently scheduled to start in 2020 and the anticipated duration is seventeen months.

7. 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 specific proposed project.

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

A Joint Aquatic Resources Permit Application (JARPA) was submitted to the Army Corps of Engineers earlier this year (see Attachment D – JARPA).

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

Besides the proposed work, there are no known pending applications or proposals affecting the property covered by this proposal.

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

- Utility Major Permit, City of Seattle, Department of Transportation (SDOT). Permit application submitted on March 28, 2019.
- Construction Use Permit, SDOT
- Street Tree Permit, SDOT
- Shoreline Exemption and/or ECA Exemption, Seattle Department of Construction and Inspections (SDCI)
- Joint Aquatic Resource Permit Application, U.S. Army Corps of Engineers (USACE)
- Rivers and Harbors Appropriation Act, Section 10 and 14, USACE
- National Historic Preservation Act, Section 106, USACE

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

Project Overview

SPU is planning to provide specific repairs and access upgrades to its 430 drinking water transmission pipeline, which is a 4-mile long, 42-inch diameter predominantly lockbar steel pipeline connecting the Maple Leaf and Volunteer water pressure zones (see Attachment A, Vicinity Map).

The pipeline was largely built in the 1908 – 1926 period under several construction contracts, with a section across SR-520 replaced in 1962, and a short wood stave pipe section near Volunteer Park replaced in 1957 with bar wrapped pipe (BWP). In 2014, an approximately 550-foot section of the pipeline between NE 65th Street and NE 67th Street was replaced with mortar lined welded steel pipe as part of the Sound Transit light rail construction. The Lake Union Tunnel/Ship Canal crossing, built in 1916, has not been lined with cement mortar. In many locations, access to the pipeline is through 14-inch by 16-inch access holes that are not considered safe for person access. In addition, certain segments such as the south shaft of the Lake Union Tunnel are experiencing corrosion of the pipe.

Proposed Project Work

The proposed project will provide the following elements:

- Safer access to the 430 pipeline with installation of access hatches along the alignment
- Relined interior sections of the pipeline
- Cement mortar encasement of the Eastlake Ave Utility Chamber
- Pipe support straps in the existing underground Lake Union Tunnel (utilidor) to protect against lateral seismic movements and cathodic protection to prevent pipe corrosion

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- Installation of a cross tie connection between the 54-inch diameter Maple Leaf pipeline and the 430 pipeline to maintain fire suppression support flow near Ravenna Park when the 430 pipeline is temporarily removed from service
- A pressure reducing value at the proposed cross-tie connection between the 530 pressure zone and the 430 pipeline on Federal Ave E between E Boston St and E Newton St
- A pressure relief valve on Federal Ave E between E Miller St and SR 520.

There are 21 specific sites of work (see Attachment B, Site Map), with Sites 1-12 providing the proposed new larger access hatches. These sites range north to south from the Maple Leaf, Ravenna, University District, Eastlake, and Capitol Hill neighborhoods. The remaining nine sites include the pressure relief valve on Federal Ave E (Site 13), the pressure reducing valve on Federal Ave E (Site 14), the contractor staging area immediately north of the Roosevelt Reservoir (Site 15), the Ravenna zone connection site adjacent to Ravenna Park (Site 16), the North Shaft site immediately south of the intersection between Eastlake PI NE and NE Pacific St (Site 17), the utilidor under the Ship Canal (Site 18), the South Shaft (Site 19) and Eastlake Ave Utility Chamber Slurry Encasement (Eastlake Ave – Site 20) sites between Portage Bay PI E and Lake Union, underneath the University Bridge, and the Volunteer Park Reservoir (Site 21).

Prior to the proposed pipeline work, potable water within the 430 pipeline will be drained and de-chlorinated prior to being discharged into Lake Union. After the initial de-watering, any water remaining in pipe sags will be discharged through flow valves to the sanitary sewer.

Once the pipeline repair work is complete, the water transmission line will be disinfected, tested, flushed, and brought back in service. The pipeline will likely be filled and disinfected from the Maple Leaf Gate House and flushed out into the Volunteer Park Reservoir, which is not connected to the drinking water system.

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

The project activities proposed in this checklist would be undertaken at twenty-one sites located along and near an approximately 4-mile corridor between Maple Leaf Reservoir and Volunteer Park. The sites are in the Maple Leaf, Ravenna, University District, Eastlake, and Capitol Hill neighborhoods and are located either in the street right-of-way or on property owned by SPU. See Attachments A and B (Vicinity and Site Maps) for the specific location of project sites.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a.	General de	escription	of the site:	[Check t	he applica:	ble boxes
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Flat Rolling Other: (identify)

🔀 Steep Slopes

Mountainous

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Hilly

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

Most of the work sites have flat to gently sloping terrain. One exception is the Eastlake Avenue Site, which has short slopes of approximately 40% from Portage Bay Place East to the Lake Union shoreline, as measured utilizing the contour layer on King County iMap.

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

The general geologic condition of the Puget Sound region is a result of a glacially altered landscape formed in the past 10,000 years. Geologic mapping for Seattle and the surrounding region (Troost et al. 2005, available at http://pubs.usgs.gov/of/2005/1252/) indicate the project area is underlain primarily by Vashon subglacial till. Pre-Olympia deposits, Vashon recessional outwash deposits, Vashon advance outwash deposits, Pre-Frasier glaciation age deposits, Lawton Clay member of the Vashon Drift, and artificial fill are also mapped on some sites. Urban development and buried utility construction at and near the project sites over the last 100 years have resulted in a predominance of disturbed native soils/sediments, cut slopes, and large placements of structural and non-structural fill material.

All work is within the right-of-way which has been disturbed in the past.

The project does not propose to alter or export any agricultural soils from project sites; no project sites occur within agricultural land of commercial significance.

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

The sites are predominantly located on flat to hilly terrain. There are no mapped landslide, erosion, or settlement hazards or history of unstable soils at any of the project sites. The South Shaft and Eastlake Ave sites are within a liquefaction hazard area as mapped by SDCI.

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

Project initiated disturbance of soils would be associated with excavation, bedding, backfilling and surfacing required to accomplish the proposed pipeline repair and access holes, and would be short-term (typically not more than 2 weeks at each site).Construction would include approximately 500 cubic yards of cut soil, subgrade material, asphalt and cement. The total project includes approximately 7,450 square feet of impacted street, sidewalk, planter strip and otherwise unimproved right-of-way. In addition to new concrete or asphalt for improved right-of-way repairs, fill materials may include native excavated material (if suitable). Excess unsuitable excavated materials would be exported from work sites and properly disposed at a location to be approved in advance by SPU.

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

Erosion could occur after pavement is stripped and bare soil is exposed within public rights of way, including the driving lane, parking area, curb and gutter, sidewalk, and driveway aprons. The risk of erosion is low because most project sites are flat or relatively flat; ground disturbance would be minimized; and standard temporary erosion and sediment control Best Management Practices (BMPs) would be deployed, inspected, and maintained as needed. All areas of disturbance are to be restored to their current condition or better prior to project completion.

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

Nearly all project sites are existing paved surfaces. The exceptions are Site 1, the South Shaft/Eastlake Ave site, and the Contractor Staging Area located north of the Roosevelt Reservoir, which predominantly include lawn areas or dirt. Existing paved and vegetated surfaces damaged or demolished by construction would be repaired or replaced in-kind, but the proposed work would not result in any increase in impervious surfaces.

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

A Construction Stormwater and Erosion Control Plan (CSECP) would be prepared and implemented by the contractor. Best Management Practices (BMP) as identified in the City of Seattle's Stormwater Code SMC Title 22, Subtitle VIII, City of Seattle Director's Rule SDCI 17-2017/SPU DWW-200, SDOT Right of Way Opening and Restoration Rules (ROWORR) Director's Rule 01-2017, and Volume 2 Construction Stormwater Control Manual would be used to manage stormwater runoff, construction disturbance, and erosion during construction.

2. Air

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

Emissions may occur from equipment at the site, such as vactor trucks, excavators, and dump trucks. Emissions would include carbon monoxide, reactive organic gases, and nitrogen oxide. Also, airborne dust particles may result from construction activities. Upon completion of construction activities, emissions related to the work would cease.

Estimates of greenhouse gas emissions, presented as total metric tons of carbon dioxide (MTCO2e) are noted below. Please refer to Attachment C for more detailed calculations.

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Activity/Emission Type	GHG Emissions (pounds of CO ₂ e) ¹	GHS Emissions (metric tons of CO ₂ e) ¹
Buildings		
Paving	822,867	373.25
Construction Activities (Diesel)	69,136	31.36
Construction Activities (Gasoline)	46,170	20.94
Long-term Maintenance (Diesel)		
Long-term Maintenance (Gasoline)		
Total GHG Emissions	938,173	425.55

Summary of Greenhouse Gas (GHG) Emissions

¹Note: 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.

No off-site sources of emissions or odors that would affect the project are known.

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

Project construction would be accomplished using contractor-provided vehicles and heavy equipment. During construction, impacts to air quality would be reduced and controlled through implementation of federal, state, City of Seattle construction practices. These would include requiring contractors to use BMPs for construction methods, proper vehicle maintenance, and minimizing vehicle and equipment idling.

Additionally, City vehicles would be used by SPU staff working on the project. These vehicles would be operated consistent with City of Seattle Mayor's Executive Order 2018-02 which directs all City departments, including SPU, to carry out specific activities to reduce vehicle emissions, including "right-sizing" vehicles in the City fleet to ensure the most efficient vehicles are used to perform City functions, incorporating the use of electric and fossil-fuel free vehicles in project construction, and prohibiting the idling of City vehicles.

3. Water

a. Surface:

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

The project sites are distributed within a north-south pipeline corridor approximately 4 miles in length located within the City of Seattle. The North Shaft, South Shaft, and Eastlake Ave sites are located on or near the north and south shorelines of Lake Union (Lake Washington Ship Canal) and, in the case of the North and South Shaft, underneath the lake in the existing utilidor. All remaining project sites are not in the immediate vicinity of any surface water body.

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(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.

Work at the North Shaft (Site 17), the utilidor under the Ship Canal (Site 18), the South Shaft (Site 19), and Eastlake Ave (Site 20) sites would be within 200 feet of Lake Union.

Work at these sites includes:

- Installation of pipe support straps in the existing utilidor and shafts to protect against lateral seismic movements and cathodic protection to prevent pipe corrosion (Sites 18-20).
- Excavation around the existing pipe south of South Shaft to evaluate pipe corrosion (Site 20).
- Cement mortar encasement of the Eastlake Ave Utility Chamber (Site 20).

These locations are shown in Attachment B.

(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 fill or dredge 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.

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

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

None of the project sites is within a 100-year floodplain.

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

Only de-chlorinated potable water would be discharged to surface waters. However, several construction activities such as concrete pouring and handling, etc., would generate pollutants that could potentially enter local drainage conveyance systems. Non-sediment pollutants that may be present during construction include:

- Petroleum products including fuel, lubricants, hydraulic fluids, and form oils
- Paints, glues, solvents, and adhesives
- Concrete and concrete washwater

Standard procedures to prevent and control pollutants, including hazardous materials such as hydrocarbons and pH-modifying substances, would be described in the Spill Prevention, Control, and Countermeasures (SPCC) plan to be prepared as part of the project's Storm Water Pollution Prevention Plan (SWPPP).

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b. Ground:

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

No groundwater will be withdrawn for drinking water or other purposes.

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

This project would not discharge waste material from septic tanks or other sources into groundwater.

c. Water Runoff (including storm water):

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

Areas of ground surface disturbed for project construction would be replaced in kind, and completion of the project would not create any new impervious surfaces that would create stormwater runoff. During project construction, vegetation clearing and ground disturbance activities could result in short-term, temporary changes to drainage patterns and an increased potential for sedimentation and erosion at the project site. Best Management Practices (BMPs) consistent with the applicable local jurisdiction's stormwater management regulations and construction standard requirements would be used to protect the existing stormwater drainage system, manage construction disturbance and stormwater runoff, and minimize erosion and sedimentation.

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

No part of the proposed work involves any discharges of waste materials to surface or ground waters. However, several construction activities such as sawcutting, concrete pouring and handling, etc., would generate pollutants that could potentially enter local drainage conveyance systems. Non-sediment pollutants that may be present during construction include:

- Petroleum products including fuel, lubricants, hydraulic fluids, and form oils
- Paints, glues, solvents, and adhesives
- Concrete and concrete washwater (including cement mortar lining)

Standard procedures to prevent and control pollutants including hazardous materials, such as hydrocarbons and pH-modifying substances would be described in the SPCC plan.

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

The proposed work would not alter or otherwise affect drainage patterns.

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

Areas of ground surface disturbed for project construction would be replaced in kind, and completion of the project would not create any new impervious surfaces that would create stormwater runoff. During project construction, vegetation clearing and ground disturbance activities could result in short-term, temporary changes to drainage patterns and an increased potential for sedimentation and erosion at the project site. Best Management Practices (BMPs) consistent with the applicable stormwater management regulations and construction standard requirements would be used to protect the existing stormwater drainage system, manage construction disturbance and stormwater runoff, and minimize erosion and sedimentation.

4. Plants

a. Types of vegetation found on the site: [check the applicable boxes]

Deciduous trees:	Alder	🔀 Maple	Aspen	🛛 Other: (various)
Evergreen trees:	🔀 Fir	🔀 Cedar	🔀 Pine	🔀 Other: (various)
🔀 Shrubs				
🔀 Grass				
Pasture				
Crop or grain				
Orchards, vineyard	s, or other perm	anent crops		
Wet soil plants:	🗌 Cattail	Buttercup	🗌 Bulrush	🗌 Skunk cabbage
🗌 Other: (identify)				
Water plants:	🗌 water lily	eelgrass	🗌 milfoil	🗌 Other: (identify)
Other types of vege	etation: (identify)		

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

The majority of project sites are located within street, utility rights-of-way, and utility easement areas consisting mostly of impervious surfaces that include features such as paved or gravel streets and trails, paved or gravel road shoulders, curbing, gutters, ditches, sidewalks, and driveway aprons. The remaining areas within street rights-of-way are predominantly vegetated with lawn and ornamental landscape plantings. On some project sites, publicly and/or privately planted street trees are located in the right-of-way landscape. Vegetation on sites located in utility rights-of-way and easement areas that are not associated with streets or trails typically includes a variety of native and ornamental grasses and shrubs, and infrequently, trees.

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Most of the proposed work in transportation rights-of-way would affect paved and gravel surfaces outside of street tree canopy drip-lines. Where excavation is required within drip-lines, BMPs will be used to protect existing trees prior to and during construction. Construction at some sites would remove planted grass and other ornamental vegetation, which would be replaced in-kind. One approximately 2-inch diameter tree (Eddie's White Wonder Dogwood, *Cornus 'Eddies White Wonder'*) is proposed for removal on Site 14. Any tree replacements will meet requirements of Seattle Urban Forestry. Vegetation removed for work at project sites in utility rights-of-way and easement areas not associated with a developed street would be replaced in-kind in landscaped areas, or with an appropriate site stabilization seed mix consistent with applicable erosion and sedimentation control BMPs.

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 11, 2018" (available at <u>www.dnr.wa.gov</u>), there are no documented occurrences of sensitive, threatened, or endangered plant species at or near any of the project sites. The majority of project sites have previously been intensively disturbed by development and redevelopment and have been extensively excavated, filled, paved, or occupied by street, utility, and other constructed features.

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. Construction limits would be clearly and physically delineated by protective construction fencing to prevent unauthorized trespass and collateral damage to nearby vegetation. Most of the proposed work in transportation rights-of-way would affect paved surfaces outside of street tree canopy drip-lines. However, construction at Site 14 would remove an approximately 2inch diameter Eddie's White Wonder Dogwood. Any tree replacements will meet requirements of Seattle Urban Forestry. Other planted grass, shrubs and low-lying vegetation removed for work at the remaining project sites in utility rights-of-way and easement areas would be replaced in-kind, or with an appropriate site stabilization seed mix consistent with applicable erosion and sedimentation control BMPs in nonlandscaped areas.

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

Himalayan blackberry (*Rubus armeniacus*) is located at the Eastlake Ave Site. Otherwise, a review of information maintained by the King County Noxious Weed Program (available at King County iMap interactive online mapping program, http://gismaps.kingcounty.gov/iMap/) identified no documented occurrences of noxious weeds on or near project sites.

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5. Animals

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

Birds :	Hawk Ected birds inclu	Heron Ide those typica	Eagle Eagle	Songbirds Songbirds d portions of the greater	
Seattle area, in	cluding songbir	ds and crows.			
Mammals:	🗌 Deer	🗌 Bear	🗌 Elk	Beaver	
Other:(iden	tify)				
Fish:	🔀 Bass🔀 Sa	lmon 🛛 🖂 Ti	rout] Herring	
Shellfish	Other: (ide	ntify)			

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

A review of the Washington State Department of Fish and Wildlife's Priority Habitats and Species on the Web online database visited on April, 2019 (available at <u>http://apps.wdfw.wa.gov/phsontheweb/)</u>, found that no federally- and state-listed species are identified as having a documented occurrence, or a potential to occur, on or near the project sites, with the exception of the utilidor connecting the North and South Shaft sites and the Eastlake Ave Site. Lake Union is mapped as priority area for several salmon species including chinook (*Oncorhynchus tshawytscha*), coho (*Oncorhynchus kisutch*), sockeye (*Oncorhynchus nerka*), steelhead (*Oncorhynchus mykiss*), as well as bull trout (*Salvelinus malma*).

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

Seattle is located within the migratory route of many birds and other animal species and is part of the Pacific Flyway, a major north-south route of travel for migratory birds in the Americas extending from Alaska to Patagonia, South America. Lake Union is an important water migration route for many animal species, which is in the vicinity of the North Shaft, South Shaft and Eastlake Ave sites.

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. Construction limits would be clearly and physically delineated by protective construction fencing to prevent unauthorized trespass and collateral damage to nearby vegetation or environmentally sensitive habitats. All removed turf and planting strip vegetation would be restored in kind.

Project work would be performed in accordance with the applicable water quality regulations and construction best management practices established for the jurisdiction(s) in which the project work is located.

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

None known.

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6. Energy and Natural Resources

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

None. The completed project will have no energy needs.

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

No. The proposed project does not involve above ground 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:

Project construction would be accomplished using contractor-provided vehicles and heavy equipment. City vehicles will be used by SPU staff working on the project. These vehicles would be operated consistent with City of Seattle Mayor's Executive Order 2018-02 which directs all City departments, including SPU, to carry out vehicle consumption reduction activities, including "right-sizing" vehicles in the City fleet to ensure the most efficient vehicles are used to perform City functions, and prohibiting the idling of City vehicles.

No energy conservation features would be included in the completed project.

7. Environmental Health

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

Small amounts of materials likely to be present during construction 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 as a result of either equipment failure or worker error. Though unlikely, contaminated soils, sediments, or groundwater could also be exposed during excavation. If disturbed, contaminated substances could expose construction workers and potentially other individuals in the vicinity through blowing dust, stormwater runoff, or vapors.

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

None of the project sites are known to have environmental contamination. However, it is possible that contamination of soil or groundwater associated with past uses or activities on or near a site may be present.

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(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 or 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.

Construction activities such as concrete pouring and handling, etc., would generate pollutants that could potentially enter local drainage conveyance systems. Non-sediment pollutants that may be present during construction include:

- Petroleum products including fuel, lubricants, hydraulic fluids, and form oils
- Paints, glues, solvents, and adhesives
- Concrete and concrete washwater (including cement mortar lining)
- Chemicals associated with portable toilets

No toxic or hazardous chemicals would be stored, used, or produced at any time at the project sites.

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

Possible fire or medic services could be required during proposed 430 Pipeline infrastructure improvements, as well as possibly during operation of the 430 Pipeline. The work could also require special emergency services for confined space retrieval from the water pipeline. However, the completed work would not require higher levels of special emergency services than already exist at the project locations.

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

During construction, the contractor would use standard operating procedures and best management practices (BMPs) identified in the City of Seattle's Stormwater Code and Manual (SMC 22.800 through 22.808 and Director's Rule DWW-200 SPU/17-2017 SDCI) and Volume 2: Construction Stormwater Control to reduce or control any possible environmental health hazards. SPU work crews and/or contractors would be required to develop and implement a SPCC plan to control and manage spills during construction, as part of the project's storm water pollution prevention plan (SWPPP).

b. Noise

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

Existing noises would not affect the project.

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(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.

During construction, short-term noise would be generated at the project sites from construction equipment (for example truck traffic, asphalt saw, backhoe, etc.). Short-term noise impacts would end upon the completion of work at each site. The completed project would generate no additional noise from equipment used for operation or maintenance.

Noise-generating construction work would be limited to the allowable maximum levels provided by Seattle Municipal Code (SMC) section 25.08.425. In general, it is expected that most noise-generating construction activities would take place between the hours of 7 a.m. and 6 p.m. on weekdays. However, on occasion, emergency repairs or other work may be needed at a project site that result in the need for construction activities to occur after hours or on weekends. In cases where project work is required outside of the hours allowed outright in Seattle noise regulations, SPU would seek a noise variance or exemption consistent with the local jurisdiction noise regulations applicable for each project site.

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

Construction of the project would comply with the 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) and City of Seattle Noise Control regulations (Seattle Municipal Code Chapter 25.08), as applicable for each project site.

In addition, 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 project construction worker noise exposure. Some of the actions taken to achieve this, while employed primarily to limit construction worker noise exposure, may also help reduce or mitigate overall noise levels emanating from the project sites, and may include such measures as preplanning site work to minimize the magnitude and duration of on-site construction operations and to allow for selection of the quietest/smallest equipment able to do the job, installing noise mufflers on engines and high pressure air exhausts, utilizing temporary barriers and equipment covers, and ensuring construction equipment is properly maintained by changing seals, lubricating machinery contact surfaces, and replacing worn parts.

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8. Land and Shoreline Use

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

Current land uses at the project sites are predominantly low-density single family, in addition to utility and transportation facilities, commercial and mixed-use development. The proposed work would be located in improved public transportation rights-of-way or SPU utility parcels. The project could result in short-term temporary road 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 project sites.

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

The project sites have not recently been used as working farmland or forest lands, therefore no conversion of these land uses would occur.

(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 project sites do not have surrounding farm or forest lands.

c. Describe any structures on the site.

Project work would be located in improved public transportation rights-of-way or on SPU utility parcels. There are no existing structures located in areas that would be directly affected by project construction, however there are numerous structures on, over, or near the project sites.

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

The project will not demolish any aboveground structures.

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

The zoning classification for each site is as follows: Sites 1, 2, 3, 4: Residential Single Family SF 5000 Site 5: Residential Multi-Family Lowrise LR 2 Site 6: Seattle Mixed SM-U 75-240 (M1) Site 7, 8: Residential Multi-Family Midrise MR (M1) Site 9: Neighborhood Commercial NC3-40 and NC2-40 Sites 10, 11, 12, 13, 14: Residential Single Family SF 5000 Contractor Staging Area: Residential Single Family SF 5000 Eastlake Ave: Commercial C1-4, Neighborhood Commercial NC2P-40 and Residential Single Family SF 5000 Ravenna Site Modification: Residential Single Family SF 5000 Volunteer Park Reservoir: Residential Single Family SF 5000

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

The comprehensive plan designation for each site is as follows: Sites 1, 2, 3, 4: Single Family Residential Areas Site 5: Multi-Family Residential Areas Site 6: Commercial / Mixed Use Areas Site 7, 8: Multi-Family Residential Areas Site 9: Commercial / Mixed Use Areas Sites 10, 11, 12, 13, 14: Single Family Residential Areas Contractor Staging Area: Single Family Residential Areas Eastlake Ave: Commercial / Mixed Use Areas and Single-Family Residential Areas Ravenna Site Modification: Single Family Residential Areas and City-Owned Open Space Volunteer Park Reservoir: Single Family Residential Areas and City-Owned Open Space

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

For the Eastlake Ave site, the shoreline master program designation is Urban Residential.

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

The South Shaft and Eastlake Ave sites are within a steep slope and liquefaction hazard area as mapped by SDCI.

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

No people would reside or work in the completed project.

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

The project would not displace any people.

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

There would be no displacement impacts.

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

The project would not impact existing and projected land uses and plans. Permits will be obtained as necessary 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:

No measures are proposed because there are no agricultural or forest lands of long-term commercial significance on or near the project sites.

9. 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.

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

The proposed project would not eliminate any housing units.

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

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

10. Aesthetics

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

Most project work would occur at or below ground level. The proposed pressure relief valve as part of Site 13 will be several feet above ground but otherwise all proposed structures will be at or below elevation.

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

No views would be altered or obstructed.

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

Parking strip vegetation would be replaced in-kind in landscaped areas, or with an appropriate site stabilization seed mix consistent with applicable erosion and sedimentation control BMPs.

11. Light and Glare

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

The constructed project would not produce light and glare. No new street lights are proposed or required. During construction, if an emergency situation calls for after-dark work, the contractor or SPU 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 finished project would not create light or glare.

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

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

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

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

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12. Recreation

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

Project Site 1 is within Maple Leaf Reservoir Park, Site 4 is 400 feet west of Cowen Park, Site 11 is across the street from Roanoke Park, and the Ravenna Site is adjacent to Ravenna Park. The Volunteer Park Reservoir site is in Volunteer Park. Sidewalks along all sites allow for informal recreation such as walking and jogging. Roadways along all the sites allow for informal recreation such as biking.

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

The proposed project activities would not permanently displace any existing recreational uses. Park circulation and access for Maple Leaf Reservoir Park and Ravenna Park adjacent to the project impact areas may have temporary restrictions related to temporary street closures or detours affecting vehicle and pedestrian routes/access. Recreational activities within Volunteer Park south of the Volunteer Park Reservoir along trails and E. Highland Dr./Volunteer Park Rd. would be temporarily restricted during the flushing of the 430 pipeline. At other sites, project construction activities could result in short-term, temporary street closures or detours affecting vehicle, bike and pedestrian routes/access. SPU would ensure that safe pedestrian and vehicle access is maintained at all times consistent with approved traffic control plans as part of the permitting processes.

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

For the sites listed above under section B.12.a. of this checklist, short-term access impacts, such as temporary street closures or detours affecting vehicle and pedestrian routes/access, may be necessary. SPU would attempt to make any necessary closures and detours as brief as possible. Notifications through advance placement of temporary 'no parking' signs would provide local residents with advance notice regarding temporary street and sidewalk closures and detours.

13. Historic and Cultural Preservation

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

There are numerous residential and other structures over 45 years old located within the project area, most of which have not been evaluated for cultural/historic significance. However, no buildings or structures would be disturbed by the project.

Site 10 is within the Roanoke Park Historic District, Site 1 is adjacent to the Maple Leaf Reservoir and the Eastlake Ave Site is underneath the University Bridge, both of which are registered historic structures. Volunteer Park is itself part of the National Register of Historic Places and encompasses registered structures such as the Reservoir, Art Museum, Water Tower, comfort station, shelter house, and sculpture. Otherwise, no known cultural/historic resources are present.

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

A cultural resources inventory report and assessment will be completed. The report will identify any historic sites, assess potential impacts, and make recommendations for any potential effects to historic sites identified.

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 any project sites are located on or near properties listed, or documented to be eligible for listing, on federal, state, or local cultural/historical registers, the project sites were checked against the following registers on April 1, 2019:

- Washington Information System for Architectural & Archaeological Research Data (WISAARD), maintained by the Washington State Department of Archaeology & Historic Preservation, (found at <u>https://fortress.wa.gov/dahp/wisaardp3/</u>)
- Landmark List, and Map of Designated Landmarks, maintained by the City of Seattle, Department of Neighborhoods, (found at <u>http://www.seattle.gov/neighborhoods/programs-and-services/historic-preservation/landmarks/landmarks-map</u>)

A National Historic Preservation Act Section 106 review will be required. The U.S. Army Corps of Engineers will be the lead agency to complete consultation and compliance.

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. The proposed work is typically located in areas that have been previously disturbed to construct the existing water mains and other unrelated developments along public rights-of-way. This reduces the chance of encountering contextually significant archaeological materials. An inadvertent discovery plan will be onsite and in effect for the duration of construction. Should evidence of either historic or prehistoric cultural artifacts or human remains be encountered during excavation, work in that immediate area would be suspended and the find would be examined and documented by a professional archaeologist. Decisions regarding appropriate mitigation and further action would be made at that time.

14. Transportation

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

See Attachment B: Site Map for information regarding the public streets and highways serving or adjacent to the project sites.

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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 project area is served by multiple King County bus service routes. The availability and level of service near project sites varies by site.

c. How many additional parking spaces would the completed project or nonproject 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 City of Seattle Construction Use permit requirements.

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 all demolished and damaged street panels, curbs, and traffic aprons to pre-construction conditions or better and consistent with SDOT pavement restoration requirements. Parking strip vegetation would be replaced in-kind. No new roads or streets would be constructed as part of the project.

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

The project does not use water, rail, or air transportation. Several of the sites do occur within the vicinity of water transportation routes; however, no direct impacts would occur.

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

No long-term additional traffic would result from the completed project.

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 each site would comply with the applicable construction traffic management requirements administered by SDOT.

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15. **Public Services**

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

The project would not create an increased need for public services.

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

No impacts on public services are anticipated and no mitigation measures are proposed.

16. Utilities

a. Check utilities available at the site, if any: [check the applicable boxes]

None	
🔀 Electricity 🛛 🛛 Natural gas	🛛 Water 🛛 🖂 Refuse service
🔀 Telephone 🛛 Sanitary sewer	Septic system
Other (identify)	

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

The proposed 430 Pipeline Project is a water utility service upgrade proposed by SPU. Proposed work items include relining interior sections of the pipeline, enhancing access to the water transmission line, addressing maintenance needs, and installation of intertie connections to prevent disruptions in levels of service while the pipeline is out of service. New utility line infrastructure includes a pressure relief valve at Site 13 and pressure reducing valve vault at Site 14. The Ravenna Site will include a new intertie to provide adequate fire flow while the 430 pipeline is out of service. Relocations of gas lines will occur for work at Sites 2, 9, and 12.

During construction, this proposed work is not expected to interrupt, relocate, or reconstruct other utilities. However, inadvertent damage to underground utilities could occur during construction. While such incidents do not occur frequently, they could temporarily affect services to customers served by the affected utility while emergency repairs are made. No other interruptions to regular utility services are expected during or after 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:

Andrew Karch **Project Manager**

Date: 7/10/19

Attachment A – Vicinity Map Attachment B – Site Maps Attachment C – Greenhouse Gas Emissions Worksheet Attachment D - JARPA SEPA Checklist 430 Drinking Water Transmission Pipeline Project 071019

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Not to Scale

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Attachment B – Site Maps



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430 Drinking Water Transmission Pipeline Project SEPA Environmental Checklist

Attachment C – Greenhouse Gas Emissions Worksheet

Section I: Buildings						
			Emissions Pe	er Unit or Per T Feet (MTCO ₂	housand Square e)	
Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Embodied	Energy	Transportation	Lifespan Emissions (MTCO2e)
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 Se	ection I Buildings	0

Section II: Pavement					
					Emissions (MTCO ₂ e)
Pavement (sidewalk, asphalt patch) in					
thousands of square feet		7.45			372.50
Gravel aggregate and cement mortar					
lining, in cubic yards		158			. 75
			TOTAL Sec	tion II Pavement	373.25

Section III: Construction	
(See detailed calculations below)	Emissions (MTCO ₂ e)
TOTAL Section III Construction	52.30

Emissions
(MTCO2e)
0
E (

TOTAL GREENHOUSE GAS (GHG) EMISSIONS FOR PROJECT (MTCO₂e) 425.55

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Section III Construction Details					
Construction: Diesel	Construction: Diesel				
Equipment	Diesel (gallons)	Assumptions			
Front end loader	1,750	250 hours x 7 gallons/hour (345 hp engine)			
Vibratory / Static Roller	20	25 hours x 0.8 gallons/hour (185 hp engine)			
Asphalt paver	270	60 hours x 4.5 gallons/hour (80 hp engine)			
Asphalt truck (8 cubic yard/load)	40	5 round trips x 40 miles/round trip ÷ 5 mpg			
One flatbed truck	160	20 round trips x 40 miles/round trip ÷ 5 mpg			
One dump truck (prob. no pups due to limited					
work area) (10 cubic yard/load and backhauling)	300	25 round trips x 60 miles/round trip ÷ 5 mpg			
Street sweeper	64	80 hours x 0.8 gallons/hour (185hp engine)			
Subtotal Diesel Gallons	2,604				
GHG Emissions in lbs CO ₂ e	69,136	26.55 lbs CO₂e per gallon of diesel			
GHG Emissions in metric tons CO ₂ e	31.36	1,000 lbs = 0.45359237 metric tons			

Attachment C - Greenhouse Gas Emissions Worksheet, continued

Construction: Gasoline		
Equipment	Gasoline (gallons)	Assumptions
Pick-up Trucks or Crew Vans	1,600	80 workdays x 10 trucks x 1 round-trip/day x 40 miles/round-trip ÷ 20 mpg
	300	50 workdays x 10 hours x 2 pieces of equipment x 0.3 gal/hour
Subtotal Gasoline Gallons	1,900	
GHG Emissions in lbs CO ₂ e	46,170	24.3 lbs CO ₂ e per gallon of gasoline
GHG Emissions in metric tons CO ₂ e	20.94	1,000 lbs = 0.45359237 metric tons

Construction Summary		
Activity	CO ₂ e in pounds	CO ₂ e in metric tons
Diesel	69,136	31.36
Gasoline	46,170	20.94
Total for Construction	115,306	52.30

Section IV Long-Term Operations and Maintenance Details		
Operations and Maintenance: Diesel		
Equipment	Diesel (gallons)	Assumptions
Subtotal Diesel Gallons	0	None
GHG Emissions in lbs CO ₂ e		26.55 lbs CO_2e per gallon of diesel
GHG Emissions in metric tons CO ₂ e		1,000 lbs = 0.45359237 metric tons

Operations and Maintenance: Gasoline			
Equipment	Gasoline (gallons)	Assumptions	
Subtotal Gasoline Gallons	0		
GHG Emissions in lbs CO ₂ e		24.3 lbs CO ₂ e per gallon of gasoline	
GHG Emissions in metric tons CO ₂ e		1,000 lbs = 0.45359237 metric tons	

Operations and Maintenance Summary: None – no maintenance activities resulting in increased emissions over existing conditions

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Attachment D – JARPA

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Seattle Public -Utilities

Submitted via email to: Daniel.A.Krenz@usace.army.mil

April 3, 2019

Mr. Dan Krenz, Section Chief U.S. Army Corps of Engineers Regulatory Branch PO Box 3755 Seattle, WA 98124-3755

430 Water Transmission Pipeline Improvements

Dear Mr. Krenz:

Seattle Public Utilities is proposing to construct the 430 Water Transmission Pipeline Improvements Project under and adjacent to the Lake Washington Ship Canal (LWSC) in the watermain tunnel (utilidor) under the bed of the LWSC. The attached Joint Aquatic Resources Permit Application (JARPA) provides information required for the Section 10 and Section 408 submittal review by the United States Army Corps of Engineers, Seattle District.

If you have any questions or require any additional information, please contact Andy Karch at (206) 684-4643 or via email at <u>andrew.karch@seattle.gov</u>.

Sincerely,

Andrew A. Kard

Andrew Karch Senior Civil Engineer SPU Solid Waste and Drinking Water Division

Enclosures

cc: Melissa Leslie, Seattle Public Utilities

700 Fifth Avenue | PO Box 34018 | Seattle, WA 98124-4018 | 206-684-3000 | seattle.gov/util

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WASHINGTON STATE	US Army Corps of Engineers = Southe District	AGENCY USE ONLY Date received:
Joint Aquatic Resources Permit Application (JARPA) Form ^{1,2} [helg]		Agency reference #:
USE BLACK OR BLUE INK TO ENTER ANSWERS IN THE WHITE SPACES BELC	SW.	Tax Parcel #(s):

Part 1–Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [help]

430 Water Transmission Pipeline Improvements

Part 2–Applicant

The person and/or organization responsible for the project. [help]

2a. Name (Last, First, Middle)					
Karch, Andrew, Georg	je				
2b. Organization (If ap	plicable)				
Seattle Public Utilities					
2c. Mailing Address (Street or PO Box)				
PO Box 34018	PO Box 34018				
2d. City, State, Zip					
Seattle, WA 98124-4018					
2e. Phone (1)	e. Phone (1) 2f. Phone (2) 2g. Fax 2h. E-mail				
208-684-4643 andrew.karch@seattle.gov					

For other help, contact the Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.

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 ¹Additional forms may be required for the following permits:
 If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (205) 764-3495.

Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county
government to make sure they accept the JARPA.

²To access an online JARPA form with [heip] screens, go to http://www.epermitting.wa.gov/site/alias resourcecenter/jarpa_jarpa_form/9984/jarpa_form.asox.

Part 3–Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b of this application.) [help]

3a. Name (Last, First, Middle)					
Melissa Leslie					
3b. Organization (If ap	plicable)				
Seattle Public Utilities					
3c. Mailing Address (Street or PO Box)				
PO Box 34018	PO Box 34018				
3d. City, State, Zip	3d. City, State, Zip				
Seattle, WA 98124-4018					
3e. Phone (1)	3e. Phone (1) 3f. Phone (2) 3g. Fax 3h. E-mail				
206-233-3711			melissa.leslie@seattle.gov		

Part 4–Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both <u>upland and aquatic</u> ownership because the upland owners may not own the adjacent aquatic land. [help]

- Same as applicant. (Skip to Part 5.)
- Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)
- There are multiple upland property owners. Complete the section below and fill out <u>JARPA Attachment A</u> for each additional property owner.
- Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don't know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete <u>JARPA Attachment E</u> to apply for the Aquatic Use Authorization.

4a. Name (Last, First, Middle)			
4b. Organization (If app	licable)		
4c. Mailing Address (S	treet or PO Box)		
4d. City, State, Zip			
4e. Phone (1)	4f. Phone (2)	4g. Fax	4h. E-mail

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Part 5-Project Location(s)

Identifying information about the property or properties where the project will occur. [help]

There are multiple project locations (e.g. linear projects). Complete the section below and use <u>JARPA</u> <u>Attachment B</u> for each additional project location.

5a. Indicate the type of ownership of the property. (Check all that apply.) [help]					
Private					
Sederal					
Publicly owned (state, o	ounty, city, s	pecial districts like s	schools, ports, etc.)		
Tribal					
Department of Natural	Resource	s (DNR) – mana	aged aquatic lands (Complete _	JARPA Attachment E)	
5b. Street Address (Cann	ot be a PO B	lox. If there is no ad	dress, provide other location informat	ion in 5p.) [<u>help]</u>	
The utilidor is located und addresses on either side the south 3254 Portage E	der the Lak of the ship Bay PI E, S	e Washington S canal are: to th eattle, WA 9810	Ship Canal. There is no addres e north 699 NE Northlake Way)2	s. The closest adjacent , Seattle, WA 98105 and to	
5c. City, State, Zip (If the	project is not	in a city or town, pr	ovide the name of the nearest city or	town.) [<u>help]</u>	
Seattle, WA 98105 and 9	8102				
5d. County [help]					
King					
5e. Provide the section, t	ownship, a	and range for the	e project location. [help]		
1/4 Section	S	ection	Township	Range	
SE	17		24	4	
5f. Provide the latitude an • Example: 47.03922 N	5f. Provide the latitude and longitude of the project location. [help] Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)				
47.65311 N lat. / -122.32	075 W lon	g.			
 5g. List the tax parcel nu The local county asse 	mber(s) fo ssor's office	r the project loca can provide this info	ation. [<u>help]</u> ormation.		
172504HYDR					
5h. Contact information f	ior all adjoi	ning property ov	vners. (If you need more space, use	JARPA Attachment C.) [help]	
Name	Name Mailing Address Tax Parcel # (if known)				
DEPT OF NATURAL RESOURCES	3304 EASTLAK		KE AVE E 98102	4089300065	
DAHL FAMILY LLC 653 NE NORTHLAKE WAY, SEATTLE 98105 4088801375			4088801375		
BRUCE N BARKER 701 NE NORTHLAKE WAY, SEATTLE 98105 4088801195					

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MICHAEL THOMAS ADAMS and BETTYE ADAMS	3304 FUHRMAN AVE E, SEATTLE 98102	1970200044
SALIX MOORAGE	3254 PORTAGE BAY PL E, SEATTLE 98102	4088801438

5i. List all wetlands on or adjacent to the project location. [help]
There are no wetlands on or adjacent to the project location.
5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [help]
This project occurs under and adjacent to the Lake Washington Ship Canal.
5k. Is any part of the project area within a 100-year floodplain? [help]
🗆 Yes 🛛 No 🔹 Don't know
51. Briefly describe the vegetation and habitat conditions on the property. [help]
The project would occur entirely within street rights-of-way and easements, in previously disturbed areas that lack vegetation. The utilidor runs under the bed of the Ship Canal, thus does not provide any fish or wildlife habitat.
5m. Describe how the property is currently used. [help]
Property is currently used as ship canal. Project will occur in watermain tunnel that is below the bed of the ship canal.
5n. Describe how the adjacent properties are currently used. [help]
Property to northwest is used as a retail store (Seattle Boat company). Waterfront outfit offering a variety of new and pre-owned boats along with parts, service & storage. There is also a title company for boats on this property (Pacific Maritime Title).
Property to the northeast is used currently used as a marina and includes the Washington Boat Center (engine rebuilding services), HTI Hydroacoustic Technology (manufactures hydroacoustic fisheries research equipment), and Gallery Marine Services (boat repair shop).
There is a small park (Northlake Park) directly to the north.
Property to southwest is used for an apartment with a boat pier. Other property to the Southwest is a marina.
Property to the southeast is currently used for moorage of house boats.

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 Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. [help]

The portion of the project within the jurisdiction of the US Army Corps of Engineers is in a utilidor under the bed of the Lake Washington Ship Canal.

The concrete utilidor is 920-feet-long, 12-feet wide (inside diameter), and normally flooded by infiltrating water. Access to the utilidor is through north and south 16-feet diameter concrete shafts approximately 60-feet deep. The utilidor was built in 1917 to accommodate the construction of the ship canal connection of Lake Washington with Lake Union. Recent inspections of the utilidor found the structure in good condition. The north shaft and access is in the intersection of 7th Ave NE and NE Northlake Way. The south shaft and access is under the University Bridge just north of Portage Bay PLE. The purpose of the utilidor is to get underground utility lines across the Lake Washington Ship Canal, including the 42-inch diameter 430 Pipeline.

At the south edge of Portage Bay PI E at the University Bridge south abutment the pipeline enters an existing 62-feet-long, 6.5-feet square concrete chamber that was constructed in 1916. The tunnel extends to under Eastlake Avenue. This tunnel was constructed to protect the 430 Pipeline from the bridge abutment construction and loads. Access into the chamber is through a maintenance cover located in Eastlake Ave E and another maintenance cover located under the bridge on Portage Bay PI E. Recent inspection of the chamber found it to be in good structural condition.

5p. Provide driving directions from the closest highway to the project location, and attach a map. [help]

To the north end of the project:

- On I-5 N take exit 169 for NE 45th St
- Turn right onto NE 45th St
- Turn right onto 8th Ave NE
- Turn right onto NE 42nd St
- Turn left at the 1st cross street onto 7th Ave NE
- Slight right onto NE 40th St
- Turn left onto 6th Ave NE
- Turn left onto NE Northlake Way
- Destination will be on the right

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Part 6-Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [help]

SPU owns and operates an essential drinking water distribution feeder main (known as the 430 Pipeline) that connects the Volunteer Park Reservoir (now decommissioned) and Maple Leaf Reservoir (Figure 1). This 5-mile-long, 42-inch diameter pipeline allows Maple Leaf Reservoir to serve areas south of the Lake Washington Ship Canal. The "430" refers to the specific Water Pressure Zone served by the Pipeline.

The Pipeline is predominantly lockbar steel and was constructed largely between 1908 and 1926. A section crossing under State Route 520 was replaced in 1962, and a short wood stave pipe section near Volunteer Park was replaced in 1957 with bar-wrapped pipe (BWP). In 2015 a 300' piece of the pipeline was replaced for construction of the light rail station at 65th Ave NE. In 1949, the segment north of the Ship Canal from the

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north shaft to Maple Leaf Reservoir was lined with cement mortar (for corrosion protection). The segment south of the Ship Canal from the south shaft to the then newly installed BWP section near Volunteer Park was relined in 1957. The Pipeline passes under the bed of the Lake Washington Ship Canal in a 920-foot-long, 16foot (inside diameter) concrete utilidor, which is normally flooded by infiltrating water.

The overall project consists of relining portions of the 430 Pipeline where the interior lining has cracked or is missing. Part of the project scope will be to install 12 new 24-inch access hatches to access the pipe for relining. Water system improvement are needed to take the pipeline out of service. These include: a pressure reducing valve assembly on Federal Ave E near E. Boston St., a pressure release valve assembly at the north end of Federal Ave E near E Miller St., and a 12-inch watermain inter-tie between in the 54-inch transmission pipeline and 20-inch main at Ravenna Ave NE and NE 54th St.

The portion of the project within the jurisdiction of the US Army Corps of Engineers is in a utilidor under the bed of the Lake Washington Ship Canal (Figure 2).

Utilidor Improvements

The pipeline work in the shafts and utilidor are for the purpose of seismic improvements and corrosion protection. For the underground pipe sections in the Ship Canal utilidor and the associated shafts, the project would add bracing to the vertical pipe segments; recoat the horizontal pipe section up to the upper bend in the south shaft; add straps to the horizontal segment; and install a passive cathodic protection system (Figures 5 and 6). The utilidor would be dewatered to enable this work.

South Shaft Pipe Inspection Site

The project would inspect the Pipeline at the south terminus (South Shaft) of the Pipeline's crossing under the Lake Washington Ship Canal. This work element would excavate and shore a pit that exposes the entire circumference of the 430 Pipeline immediately adjacent to the tunnel's South Shaft under the University Bridge (Figure 3). Following excavation, the Pipeline would be cleaned of all loose soil and pressure-washed for final cleaning and inspection. After the inspection is completed, the excavation would then be backfilled with compacted aggregate and graded to match existing grades.

Chamber Grout Encasement Site

Immediately south of the South Shaft Pipe Inspection Site, the Pipeline enters an existing 62-foot-long, 6.5-foot square concrete chamber that was constructed in 1916. The tunnel extends from the south abutment of the University Bridge at Portage Bay Place to and under Eastlake Avenue (Figures 3 and 4). Access into the chamber is through maintenance covers in Eastlake Ave E and under the University Bridge adjacent to Portage PI E. This chamber is very confined, and the exterior of the Pipeline is corroding. Because access for surface preparation and recoating is difficult, this project would fill the chamber with cementitious slurry to protect the Pipeline from corrosion.

6b. Describe the purpose of the project and why you want or need to perform it. [help]

Recent inspections have found that much of the pipeline has failing cement mortar lining. In particular at the locations of the lockbar joints. The purpose of the project is to extend the life of the 430 Pipeline by protecting it from corrosion by replacing failed lining, installing cathodic protection, and cement slurry encasement. The works needs to be done to prevent failure of the pipeline due to corrosion. Also, bracing and straps will be added to the pipe within the Ship Canal utilidor and shafts to prevent failure of the pipeline during a seismic event.

Utilidor Improvements

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 Add bracing to the vertical pipe segments to prevent displacement and pipe failure during a seismic event 				
 Recoat the horizonta 	 Recoat the horizontal pipe section up to the upper bend in the south shaft to protect it from corrosion 			
 Add straps to the hor 	ure due to corrosion. rizontal segment to prevent (displacement and pipe failure	during a seismic event	
 Install a passive cath 	nodic protection system to pr	otect the pipe from corrosion	and prevent pipe failure	
due to corrosion.				
South Shaft Pipe Inspection	Site			
 The inspection of the under the Lake Wash corroding at this local 	e pipeline at the south termin hington Ship Canal is neede ation. Corrosion of the exteri	us (South Shaft) of the pipeli d to determine if the exterior or of the pipe can lead to pip	ine's crossing of the pipeline is e failure.	
Chamber Grout Encasemen	t Site			
 This tunnel would be 	filled with cementitious slum	y to protect the pipeline from	corrosion. The exterior	
of the pipe is corrodi	ng and without protection the	e corrosion could lead to pipe	e failure.	
60 Indicate the project cate	nony (Check all that apply) [help	1		
Commercial Residential Institutional Transportation Recreational				
Maintenance Environmental Enhancement				
60. Indicate the major elem	ents of your project. (Check al	I that apply) [help]	1	
Aquaculture	Culvert	Float	Retaining Wall	
Bank Stabilization	Dam / Weir	Floating Home	(upland)	
Boat House	Dike / Levee / Jetty	Geotechnical Survey		
Boat Launch	Ditch	Land Clearing	Measurement Device	
Boat Lift	Dock / Pier	🗆 Marina / Moorage	□ Stairs	
Bridge	Dredging	Mining	Stormwater facility	
Bulkhead	Fence	Outfall Structure	Swimming Pool	
Buoy	Ferry Terminal	Piling/Dolphin	🛛 Utility Line	
Channel Modification	Fishway	🗆 Raft		
Other:		•		

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6e. Describe how you plan to construct each project element checked in 6d. Include specific construction methods and equipment to be used. [help]

- · Identify where each element will occur in relation to the nearest waterbody.
- Indicate which activities are within the 100-year floodplain.

The portion of the project within the jurisdiction of the US Army Corps of Engineers is in a utilidor under the bed of the Lake Washington Ship Canal.

Utilidor Improvements

In order to construct utilidor improvements the shafts and utilidor will need to be dewatered. A portable generator and pumps will be used to discharge the water into the ship canal. The water will be discharged onto a small float into deeper water to eliminate possible sediment disturbance.

To perform the structural improvement the contractor will need to frequently set up vehicles or equipment on Portage PI E and control traffic with flaggers. Equipment such as scaffolding will be necessary for shaft work access. A means to lift and lower equipment and structural members into the shaft will be necessary. Likely a small portable crane will be placed adjacent to the south shaft. Otherwise work in the shaft and utilidor is primarily hand labor.

South Shaft Pipe Inspection Site

In order to excavate around the pipeline adjacent to the south shaft the excavation will need to be shored. This will likely need to be custom built shoring using plates, posts and braces to fit around the pipe. Excavation equipment such as a small backhoe or vactor truck will need to be on Portage PI E during this work. A dump truck will also be necessary if excavation is by backhoe. Temporary erosion control measures will be necessary surrounding the local site. Backfilling the excavation and pulling the shoring will require dump truck and backhoe type equipment which will remain on the road.

Chamber Cement Slurry Encasement Site

It is expected that this work will be primarily done from Eastlake Ave E requiring lane closure. Cement slurry will be delivered by concrete mixer truck, discharged into a grout pump, and pumped via hose into the chamber. The hose will be pulled as the chamber fills. Preliminary work such as bracing over the pipe will likely be via access under the bridge on Portage PI E.

6f. What are the anticipated start and end dates for project construction? (Month/Year) [help]

 If the project will be constructed in phases or stages, use JARPA Attachment D to list the start and end dates of each phase or stage. 				
Start Date: Ju	une 2020	End Date: _	Oct. 2021	See JARPA Attachment D
6g. Fair market valu	e of the project,	, including m	aterials, labor, machine	rentals, etc. [<u>help]</u>
\$10,000,000				
6h. Will any portion of the project receive federal funding? [help] If yes, list each agency providing funds.				
🗆 Yes 🛛 No	Don't know	v		

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Part 7-Wetlands: Impacts and Mitigation

Check here if there are wetlands or wetland buffers on or adjacent to the project area. (If there are none, skip to Part 8.) [help]

7a. Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [help]
Not applicable
7b. Will the project impact wetlands? [help]
□ Yes □ No □ Don't know
7c. Will the project impact wetland buffers? [help]
□Yes □No □Don't know
7d. Has a wetland delineation report been prepared? [help]
 If Yes, submit the report, including data sheets, with the JARPA package.
Yes No
7e. Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating
 If Yes, submit the wetland rating forms and figures with the JARPA package.
□Yes □No □Don't know
7f. Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [help]
 If Yes, submit the plan with the JARPA package and answer 7g.
 If No, or Not applicable, explain below why a mitigation plan should not be required.
□Yes □No □Don't know
rg. summarize what the mitigation plan is meant to accomplish, and describe how a watershed approach was used to design the plan. [help]

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7h. Use the table be impact, and the	elow to list the ty type and amoun	pe and rating of it of mitigation p	each wetland	l impacted, the	e extent and d nitting a mitiga	luration of the ation plan with a
Activity (fill, drain, excavate, flood, etc.)	Wetland Name ¹	Wetland Wetland type and rating category ²	Impact area (sq. ft. or Acres)	ormation in th Duration of impact ³	Proposed mitigation type ⁴	Wetland mitigation area (sq. ft. or acres)
¹ If no official name for the wetland exists, create a unique name (such as "Wetland 1"). The name should be consistent with other project documents, such as a wetland delineation report. ² Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package. ³ Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable. ⁴ Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)						
Page number(s) for similar information in the mitigation plan, if available:						
7j. For all excavatin cubic yards you	g activities identi will remove, and	fied in 7h, descr where the mate	ribe the excav rial will be dis	vation method. sposed. [<u>help</u>]	, type and amo	ount of material in

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Part 8-Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, "waterbodies" refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.) [help]

Check here if there are waterbodies on or adjacent to the project area. (If there are none, skip to Part 9.)

8a. Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment. [help]

Not applicable

Work will not occur within the waterbody. Work will occur under the waterbody in a utilidor and adjacent to the waterbody. The utilidor and water pipeline will need to be dewatered. Water in the utilidor, which is seepage from the Lake Washington Ship Canal will be pumped out and discharged to the ship canal. The water will be discharged onto a small float into deeper water to eliminate possible sediment disturbance. Water from the pipeline will be dechlorinated prior to discharging to the ship canal.

8b. Will your project impact a waterbody or the area around a waterbody? [help]

Yes No

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 8c. Have you prepared a mitigation plan to compensate for the project's adverse impacts to non-wetland waterbodies? [help] If Yes, submit the plan with the JARPA package and answer 8d. If No, or Not applicable, explain below why a mitigation plan should not be required. 					
🗆 Yes 🛛 No	Don't know	1			
N/A, project will not	adversely impac	t non-wetland	waterbody.		
8d. Summarize wh used to design If you already	at the mitigation p the plan. completed 7g you do	plan is meant t not need to resta	o accomplish. te your answer he	Describe how a watershe are. [help]	d approach was
N/A					
8e. Summarize imp	act(s) to each wa	aterbody in the	table below.	[help]	
Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name ¹	Impact location ²	Duration of impact ³	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
N/A					
¹ If no official name for the provided. ² Indicate whether the impo indicate whether the impo ³ Indicate the days, monthi	waterbody exists, creat act will occur in or adjac act will occur within the s or years the waterbody	e a unique name (si ent to the waterbod 100-year flood plain y will be measurably	uch as "Stream 1") y. If adjacent, provi	The name should be consistent with de the distance between the impact ork. Enter "permanent" if applicable	other documents and the waterbody and
8f. For all activities you will use, and	identified in 8e, o d how and where	lescribe the so it will be place	ource and natured into the wate	re of the fill material, amo erbody. [<u>help]</u>	unt (in cubic yards)
N/A					

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8g. For all excavating or dredging activities identified in 8e, describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [help]

Part 9–Additional Information

N/A

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

9a. If you have already worked with any government agencies on this project, list them below. [help]						
Agency Name	Contact Name	Phone	Most Recent Date of Contact			
U.S. Army Corps of Engineers	Dan Krenz	206-316-3153	August 15, 2018			
 9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA on the Washington Department of Ecology's 303(d) List? [help] If Yes, list the parameter(s) below. If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: https://ecology.wa.gov/Water-Shorelines/Water-gality/Water.immunement/Assessment-of-state-waters.303d 						
🛛 Yes 🗌 No	🛛 Yes 🗌 No					
Lake Union/Lake Washington Ship Canal are listed as Category 5 water for Bacteria and Temperature; Category 2 water for chloride; and Category 1 water for total phosphorus, selenium, and chromium.						
9c. What U.S. Geologica • Go to <u>http://cfpub.epa</u>	I Survey Hydrological Unit Co .gov/surf/locate/index.cfm to help id	ode (HUC) is the project in? [entify the HUC.	help]			
17110012						
9d. What Water Resource Go to https://ecology.	e Inventory Area Number (W wa.gov/Water-Shorelines/Water-sup	RIA #) is the project in? [help] ply/Water-availability/Watershed-lo	ok-up to find the WRIA #.			
8						

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96. Will the in-water construction work comply with the State of Washington water quality standards for taskidte 2. Italy
turbidity? [<u>neip]</u>
 Go to https://ecology.wa.gov/water-Shorelines/water-quality/Freshwater/Surface-water-quality-standards/Critena for the standards.
Yes No Not applicable
9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline
environment designation? [help]
 If you don't know, contact the local planning department.
 For more information, go to: https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal- planning/Shoreline-laws-rules-and-cases.
🛛 Urban 🗌 Natural 🗌 Aquatic 🖾 Conservancy 🗌 Other:
9g. What is the Washington Department of Natural Resources Water Type? [help]
 Go to <u>http://www.dnr.wa.gov/forest-practices-water-typing</u> for the Forest Practices Water Typing System.
Shoreline Fish Non-Fish Perennial Non-Fish Seasonal
9h. Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual? [beln]
If No provide the name of the manual your project is designed to meet
News of menuals Oils of Contillo Chammates Menual
Name of manual: City of Seattle Stormwater Manual
9i. Does the project site have known contaminated sediment? [help]
If Yes, please describe below.
🗆 Yes 🛛 No
9j. If you know what the property was used for in the past, describe below. [belo]
Not known
NOT KNOWN.
9k. Has a cultural resource (archaeological) survey been performed on the project area? [help]
If Yes, attach it to your JARPA package.
Yes No Cultural Resources Assessment in process of being completed.

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 Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [help]

The following species are listed as threatened or endangered and are known to occur in the Ship Canal: Chinook salmon (Oncorhynchus tshawytscha), bull trout (Salvelinus malma), and steelhead trout (O. mykiss).

9m. Name each species or habitat on the Washington Department of Fish and Wildlife's Priority Habitats and Species List that might be affected by the proposed work. [help]

WDFW lists the following species as Priority Species in the Ship Canal: Chinook salmon (Oncorhynchus tshawytscha), bull trout (Salvelinus malma), coho salmon (O. kisutch), sockeye salmon (O. nerka), steelhead trout (O. mykiss), and resident coastal cutthroat trout (O. clarki).

Part 10-SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

- Online Project Questionnaire at <u>http://apps.oria.wa.gov/opas/</u>.
- Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or <u>help@oria.wa.gov</u>.
- For a list of addresses to send your JARPA to, click on <u>agency addresses for completed JARPA</u>.

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [help]
 For more information about SEPA, go to https://ecology.wa.gov/regulations-permits/SEPA-environmental-review.
□ A copy of the SEPA determination or letter of exemption is included with this application.
A SEPA determination is pending with <u>Seattle Public Utilities</u> (lead agency). The expected decision date is <u>June 2019</u> .
□ I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [help]
This project is exempt (choose type of exemption below).
□ Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt?
Other:
□ SEPA is pre-empted by federal law.

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LOCAL GOVERNMENT Local Government Shoreline permits: Substantial Development Conditional Use Variance Shoreline Exemption Type (explain): SDCI shoreline exemption issued 5/4/16 Other City/County permits: Floodplain Development Permit Critical Areas Ordinance STATE GOVERNMENT Washington Department of Fish and Wildlife: Hydraulic Project Approval (HPA) Fish Habitat Enhancement Exemption – Attach Exemption Form Washington Department of Natural Resources: Aquatic Use Authorization Complete JARPA Attachment E and submit a check for \$25 payable to the Washington Department of Natural Resources. Do not send cash. Washington Department of Ecology: Section 401 Water Quality Certification FEDERAL AND TRIBAL GOVERNMENT United States Department of the Army (U.S. Army Corps of Engineers): Section 404 (discharges into waters of the U.S.) Section 10 (work in navigable waters) United States Coast Guard: Private Aids to Navigation (for non-bridge projects)
Local Government Shoreline permits: Substantial Development Conditional Use Variance Shoreline Exemption Type (explain): SDCI shoreline exemption issued 5/4/18 Other City/County permits: Floodplain Development Permit Critical Areas Ordinance STATE GOVERNMENT Washington Department of Fish and Wildlife: Hydraulic Project Approval (HPA) Fish Habitat Enhancement Exemption – Attach Exemption Form Washington Department of Natural Resources: Aquatic Use Authorization Complete JARPA Attachment E and submit a check for \$25 payable to the Washington Department of Natural Resources. Do not send cash. Washington Department of Ecology: Section 401 Water Quality Certification FEDERAL AND TRIBAL GOVERNMENT United States Department of the Army (U.S. Army Corps of Engineers): Section 404 (discharges into waters of the U.S.) Section 10 (work in navigable waters) United States Coast Guard: General Bridge Act Permit Private Aids to Navigation (for non-bridge projects)
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□ Section 404 (discharges into waters of the U.S.) ⊠ Section 10 (work in navigable waters) United States Coast Guard: □ □ General Bridge Act Permit □ Private Aids to Navigation (for non-bridge projects)
United States Coast Guard: General Bridge Act Permit Private Aids to Navigation (for non-bridge projects)
United States Environmental Protection Agency: Section 401 Water Quality Certification (discharges into waters of the U.S.) on tribal lands where tribes do not have treatment as a state (TAS)
Tribal Permits: (Check with the tribe to see if there are other tribal permits, e.g., Tribal Environmental Protection Act, Shoreline Permits, Hydraulic Project Permits, or other in addition to CWA Section 401 WQC) Section 401 Water Quality Certification (discharges into waters of the U.S.) where the tribe has treatment as a state (TAS).

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Part 11–Authorizing Signatures

Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [help]

11a. Applicant Signature (required) [help]

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. <u>AGK</u> (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. <u>AGK</u> (initial)

Andrew G. Karch	andrew J. Kard	3/29/19
Applicant Printed Name	Applicant Signature	Date

11b. Authorized Agent Signature [help]

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

Authorized Agent Printed Name Authorized Agent Signature Date

11c. Property Owner Signature (if not applicant) [help]

Not required if project is on existing rights-of-way or easements (provide copy of easement with JARPA).

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

Property	Owner	Printed	Name
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Property Owner Signature

Date

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ORIA-16-011 rev. 09/2018

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From:	Fotherby, Hannah L CIV (US)
To:	Leslie, Melissa_SPU_SU077; Karch, Andrew
Cc:	Krenz, Daniel A CIV USARMY CENWS (US)
Subject:	DA Permit Application Received: NWS-2018-820-WRD (CORRECTED #); Seattle Public Utilities (430 Water Transmission Pipeline Improvements) (UNCLASSIFIED)
Date:	Tuesday, April 09, 2019 7:54:42 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

CLASSIFICATION: UNCLASSIFIED

Greetings,

The U.S. Army Corps of Engineers, Seattle District, has received your application for a Department of the Army permit.

We have assigned the project the reference number and name as stated on the subject line of this email. Please cite the reference number in any correspondence with us concerning this project.

Your permit application is being assigned to a project manager who will contact you after reviewing the permit application. In the meantime, if you have any general questions about the Corps of Engineers Regulatory Program, please contact:

Dan Krenz Regulatory Project Manager (206) 316-3153 daniel a krenz@usace.army.mil

Although not required for our permit process, you may request a jurisdictional determination from the Corps to verify the presence or absence of waters of the U.S. on your project site. If requested, we can proceed in one of two ways. You may request either a preliminary or approved jurisdictional determination. For more information, please contact the project manager listed in this email or visit our website listed below (select Jurisdictional Determinations).

More information on the Corps of Engineers Regulatory Program can be found at: http://www.nws.usace.army.mil/Missions/CivilWorks/Regulatory.aspx.

More information on local, state, and federal regulatory programs and processes in Washington State can be found at: http://www.ora.wa.gov/ or by telephone at 800-917-0043.

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